Red Hat CodeReady Studio 12.19

Getting Started with CodeReady Studio Tools

Introduction to using Red Hat CodeReady Studio tools

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Introduction to using Red Hat CodeReady Studio tools

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Abstract

This compilation of topics contains information on how to start using Red Hat CodeReady Studio Tools for efficient development.

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MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see our CTO Chris Wright's message.

CHAPTER 1. GIT BASICS IN CODEREADY STUDIO

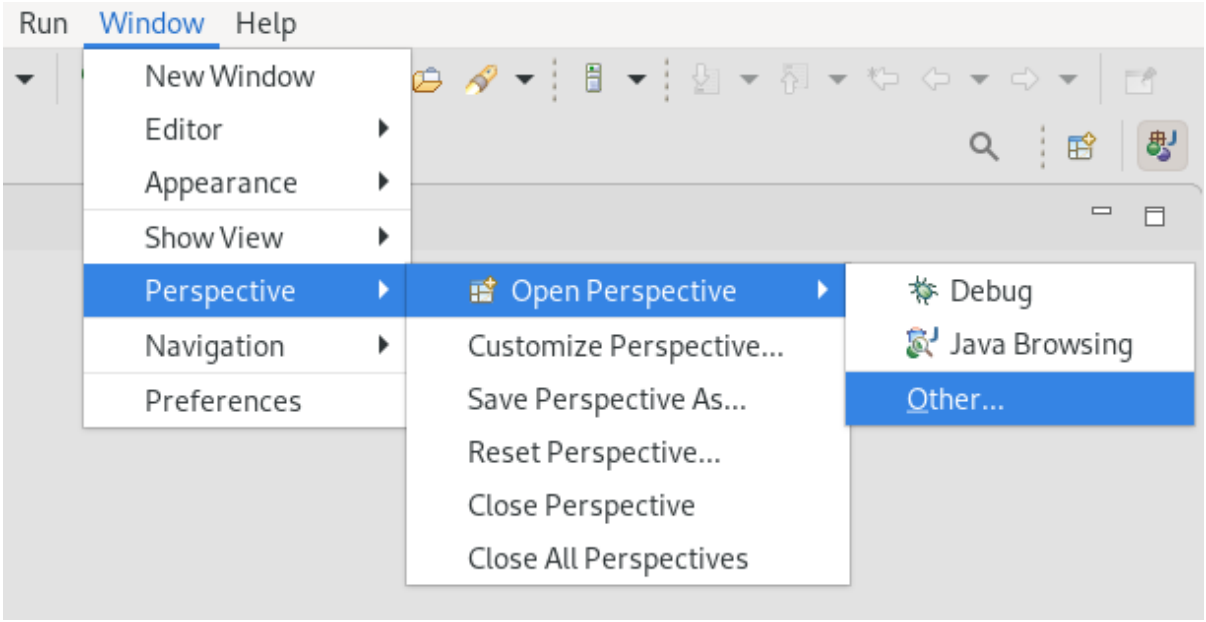
CodeReady Studio includes Git Perspective, which allows developers to manage their Git repositories from a graphical interface. The following section outlines the basic workflow of a Git project in Git Perspective and describes how to accomplish the most common Git-related tasks.

1.1. SETTING UP GIT PERSPECTIVE

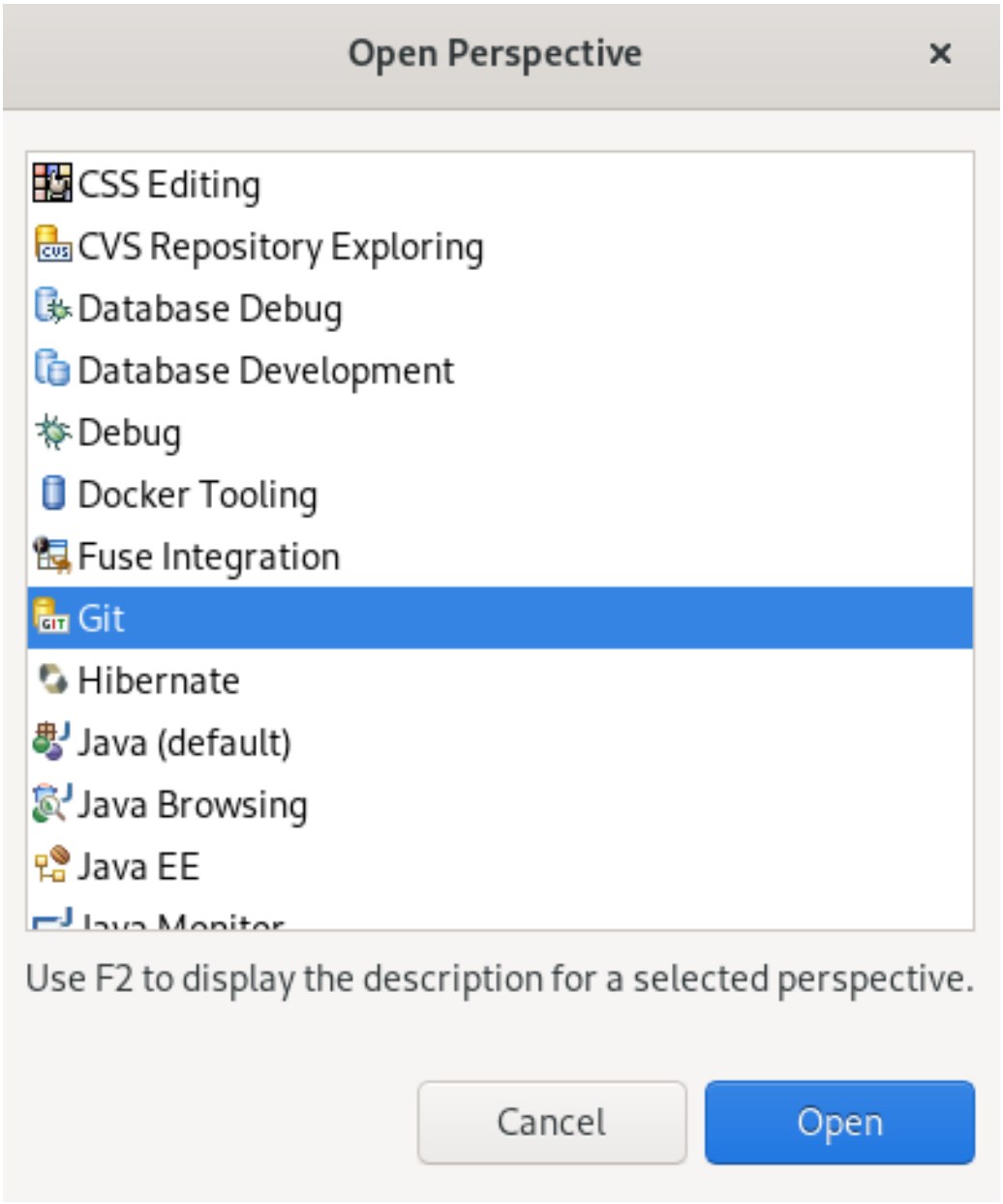
The following section describes how to open Git Perspective in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Click **Window → Perspective → Open Perspective → Other**.

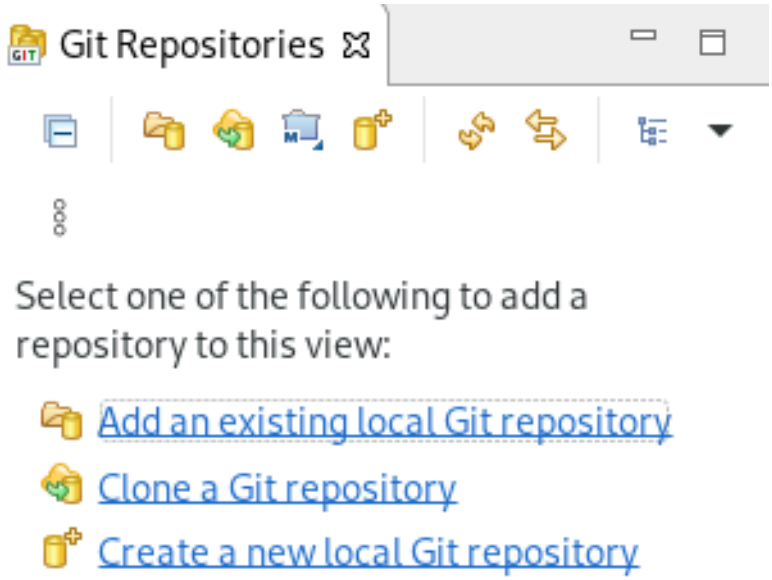


The **Open Perspective** window appears.



3. Select **Git**.

4. Click **Open**.
   The **Git Repositories** view appears.



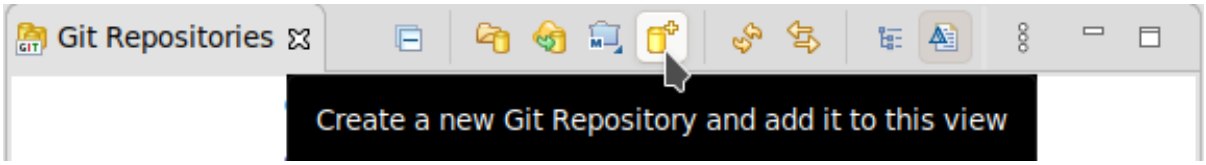
1.2. MANAGING REPOSITORIES IN GIT PERSPECTIVE

1.2.1. Creating a new Git repository

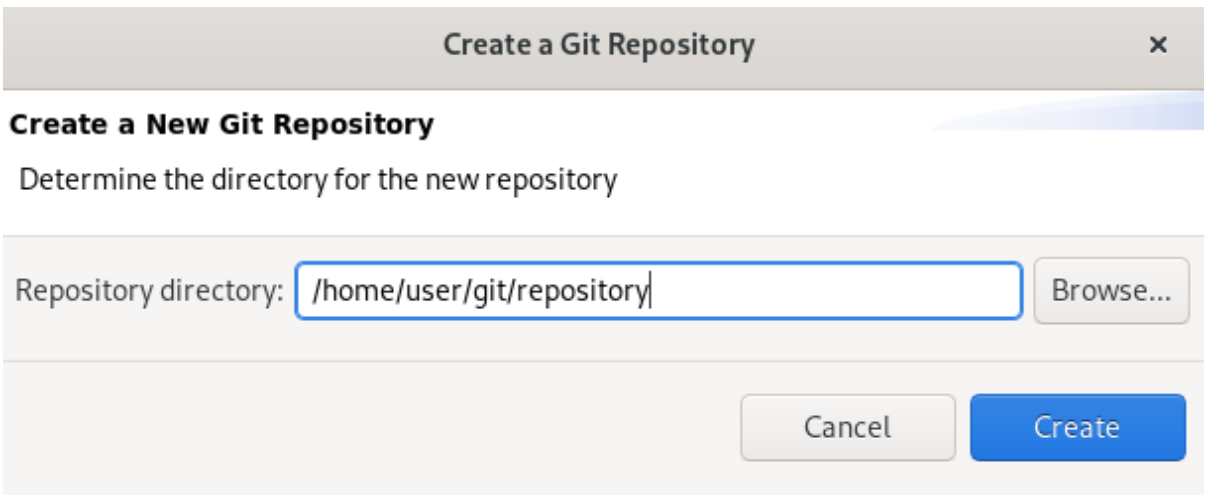
The following section describes how to use Git Perspective to create a new Git repository.

Procedure

1. Start CodeReady Studio.
2. Open **Git Perspective**.
3. Click the **Create a new Git Repository and add it to this view** icon.



The **Create a Git Repository** window appears.



The path to the default **Repository directory** is generated automatically. Choose the path where you want your repository to be stored at and continue with the repository creation.

Optionally, you can select the **Create as bare repository** check box.

NOTE

Bare repositories are recommended for central repositories, not for development environments. They do not contain a working or checked out copy of any source file. This prevents editing files and committing changes. Additionally, they store the Git revision history for your repository in the **root** folder instead of a **.git** sub-folder.

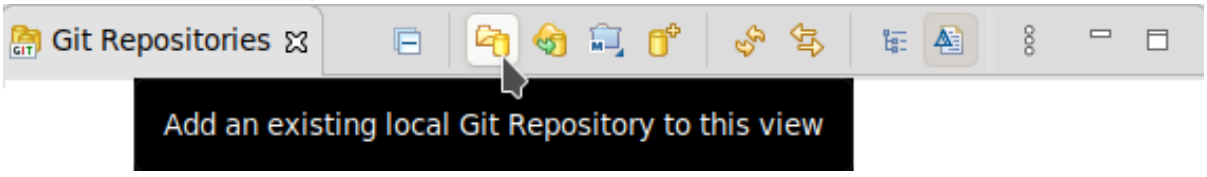
4. Click **Create**.
   A new Git repository is created on your local machine and is now listed in the **Git Repositories** view.

1.2.2. Adding an existing local Git repository

The following section describes how to use Git Perspective to add a local Git repository to CodeReady Studio.

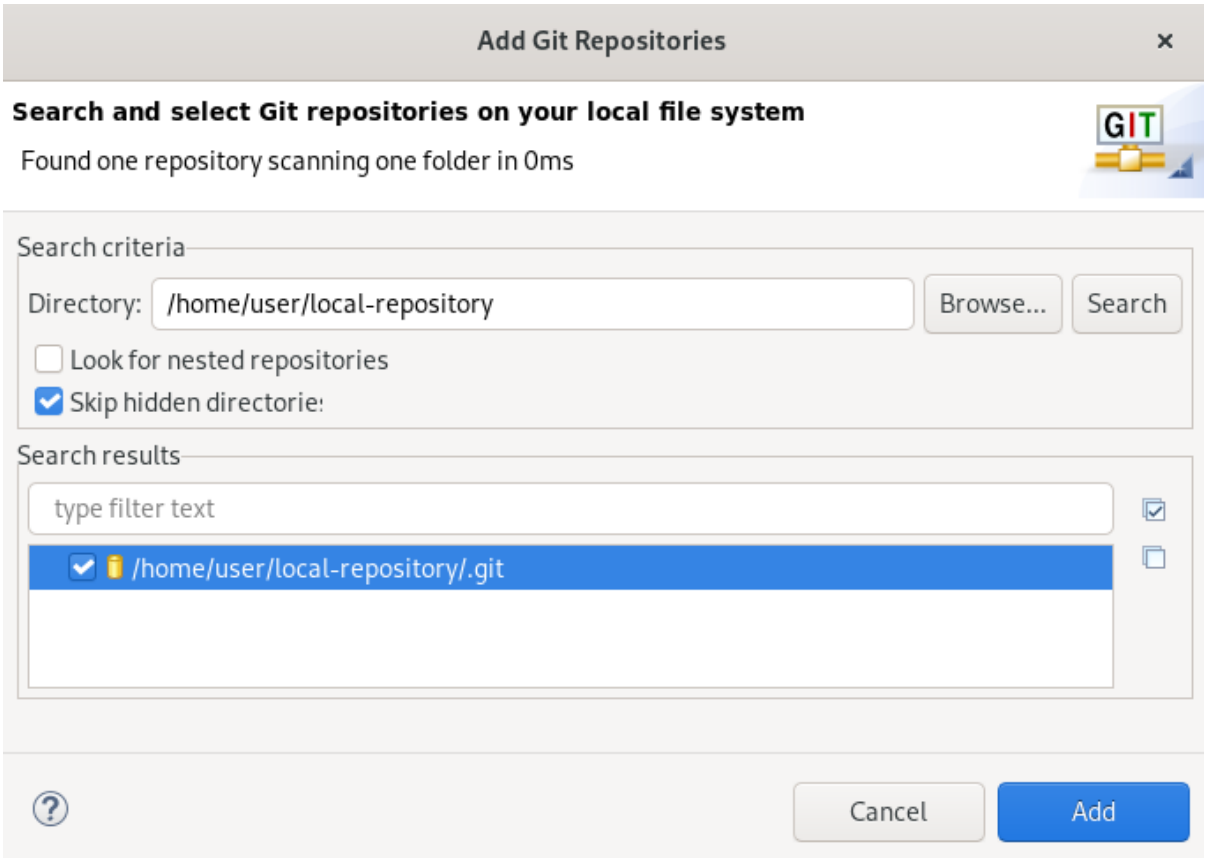
Procedure

1. Start CodeReady Studio.
2. Open **Git Perspective**.
3. Click the **Add an existing local Git Repository to this view** icon.



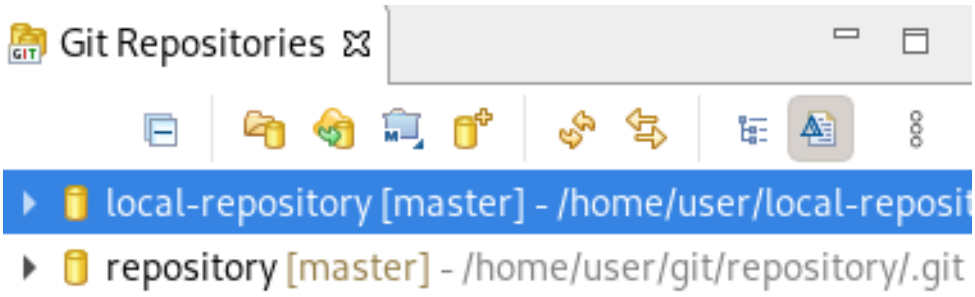
   The **Add Git Repositories** window appears.

4. Click **Browse** to locate your local Git repository.



5. In the **Search results** field, select the checkbox displaying the path to the **.git** file.
6. Click **Add**.

Your local repository is now listed in the **Git Repositories** view.

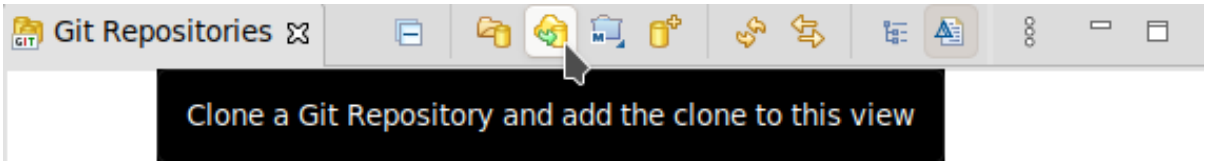


1.2.3. Cloning an existing Git repository

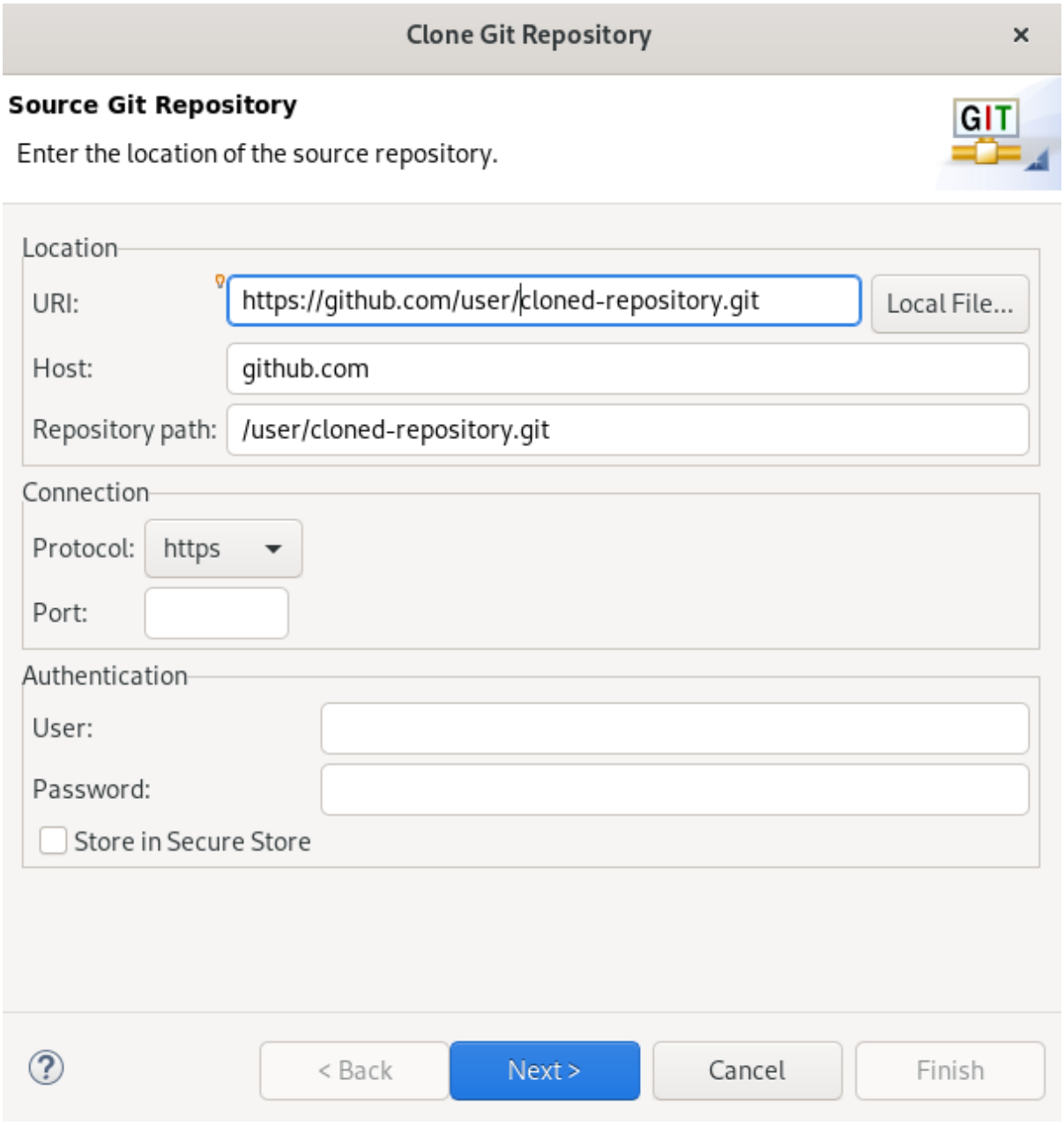
The following section describes how to use Git Perspective to create a local clone of a repository that already exists online (GitHub, GitLab).

Procedure

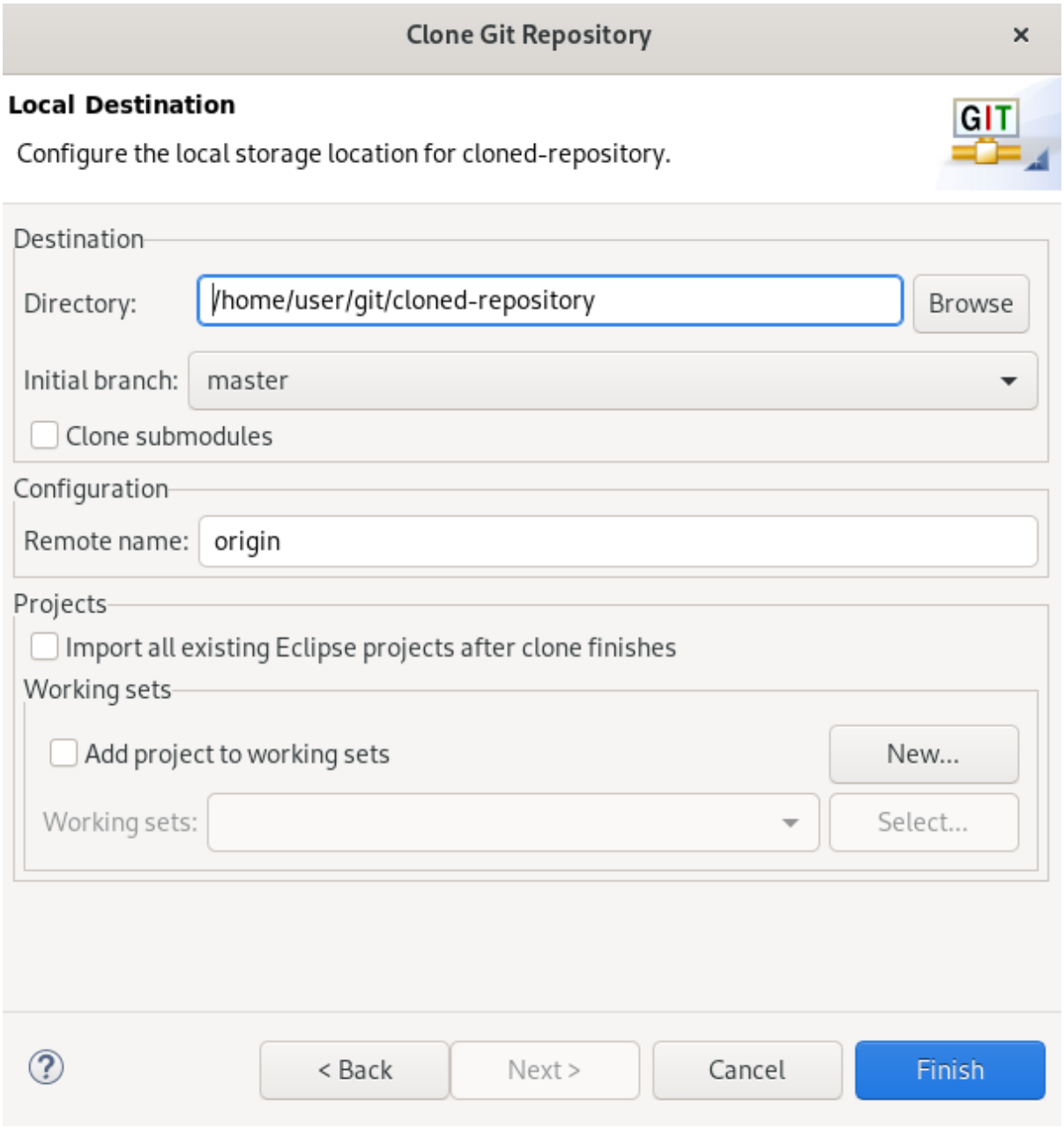
1. Start CodeReady Studio.
2. Open **Git Perspective**.
3. Click the **Clone a Git Repository and add the clone to this view** icon.



The **Clone Git Repository** window appears.

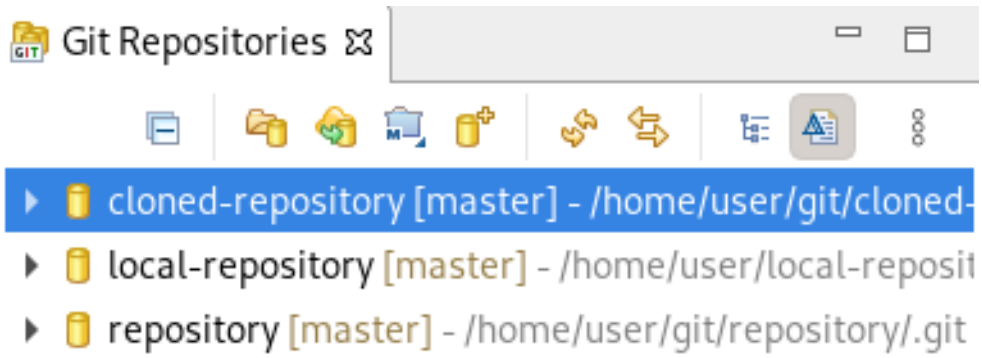


4. Add the address for the source repository to the **URI** field.
   The **Host** and **Repository path** fields are populated automatically.
5. Click **Next**.
6. Select the branches you want to clone.
7. Click **Next**.
8. Ensure that the **Directory** path and **Initial branch** are set correctly.



9. Click **Finish**.

Your cloned repository is now listed in the **Git Repositories** view of CodeReady Studio.



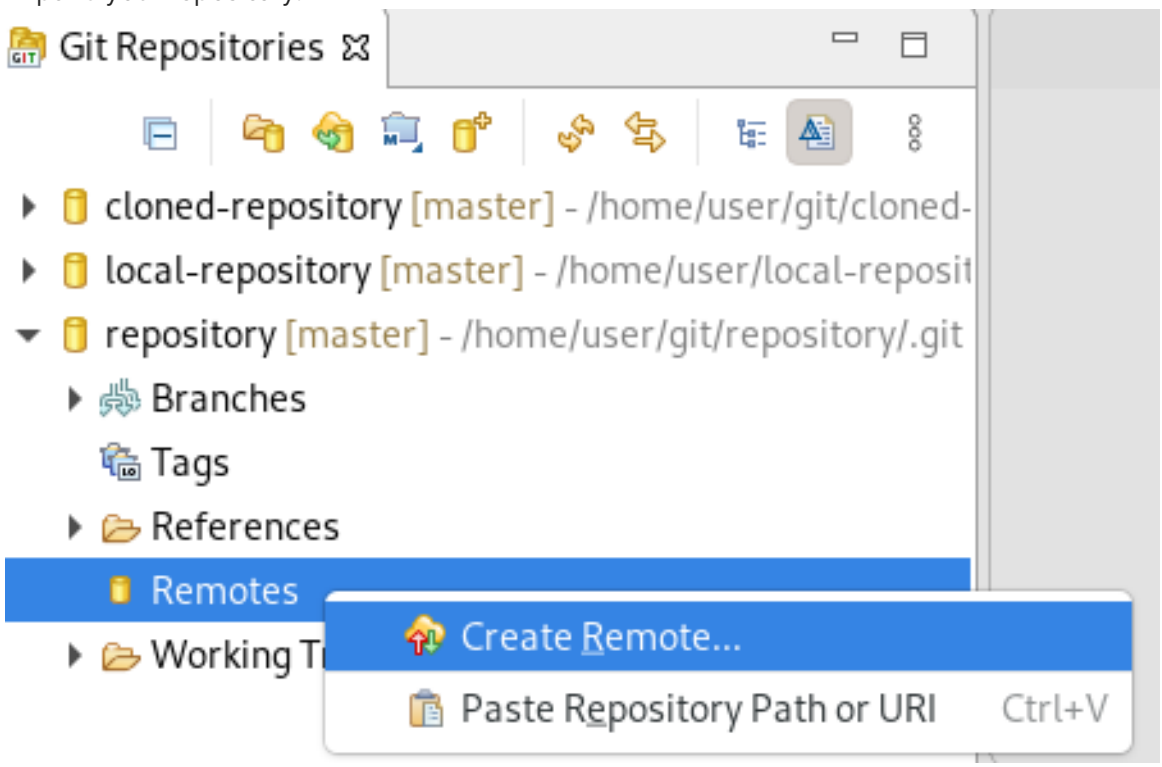
1.2.4. Adding a remote for the repository

After setting up your repository in Git Perspective for the first time, add a remote for the repository. This is a one-time set up step for newly created or added repositories.

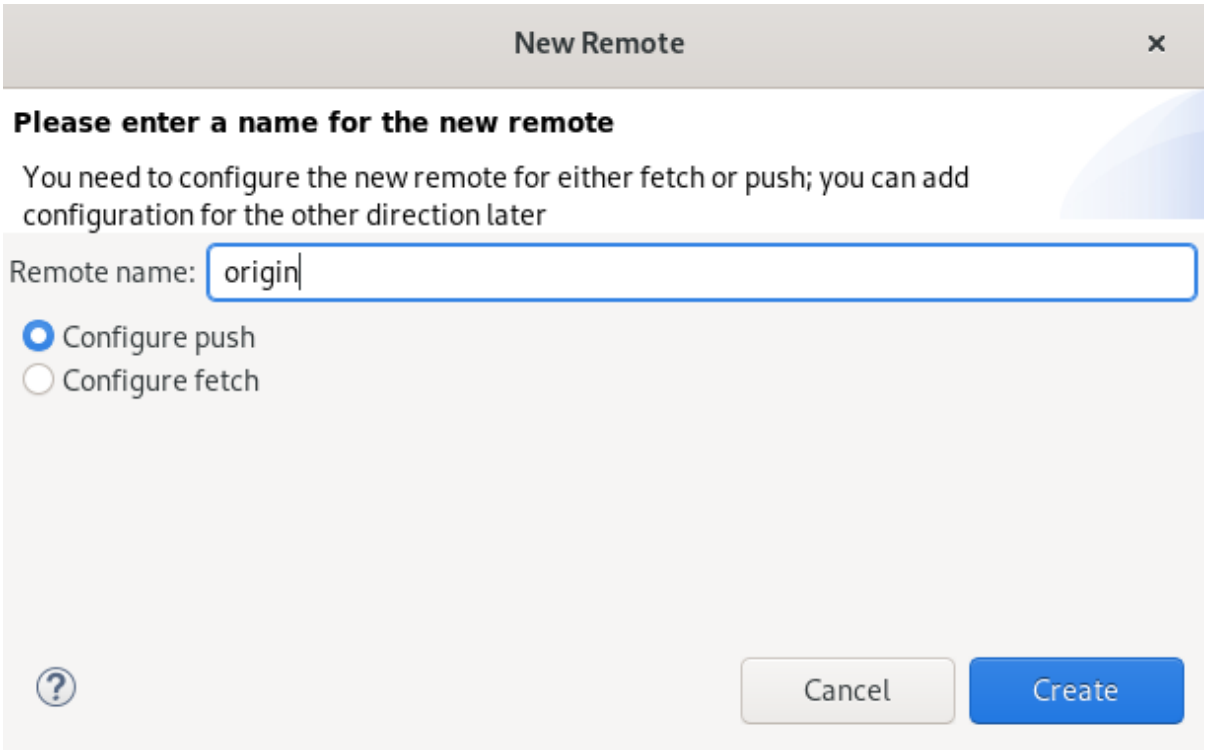
The following section describes how to use Git Perspective to set up the remote for your repository.

Procedure

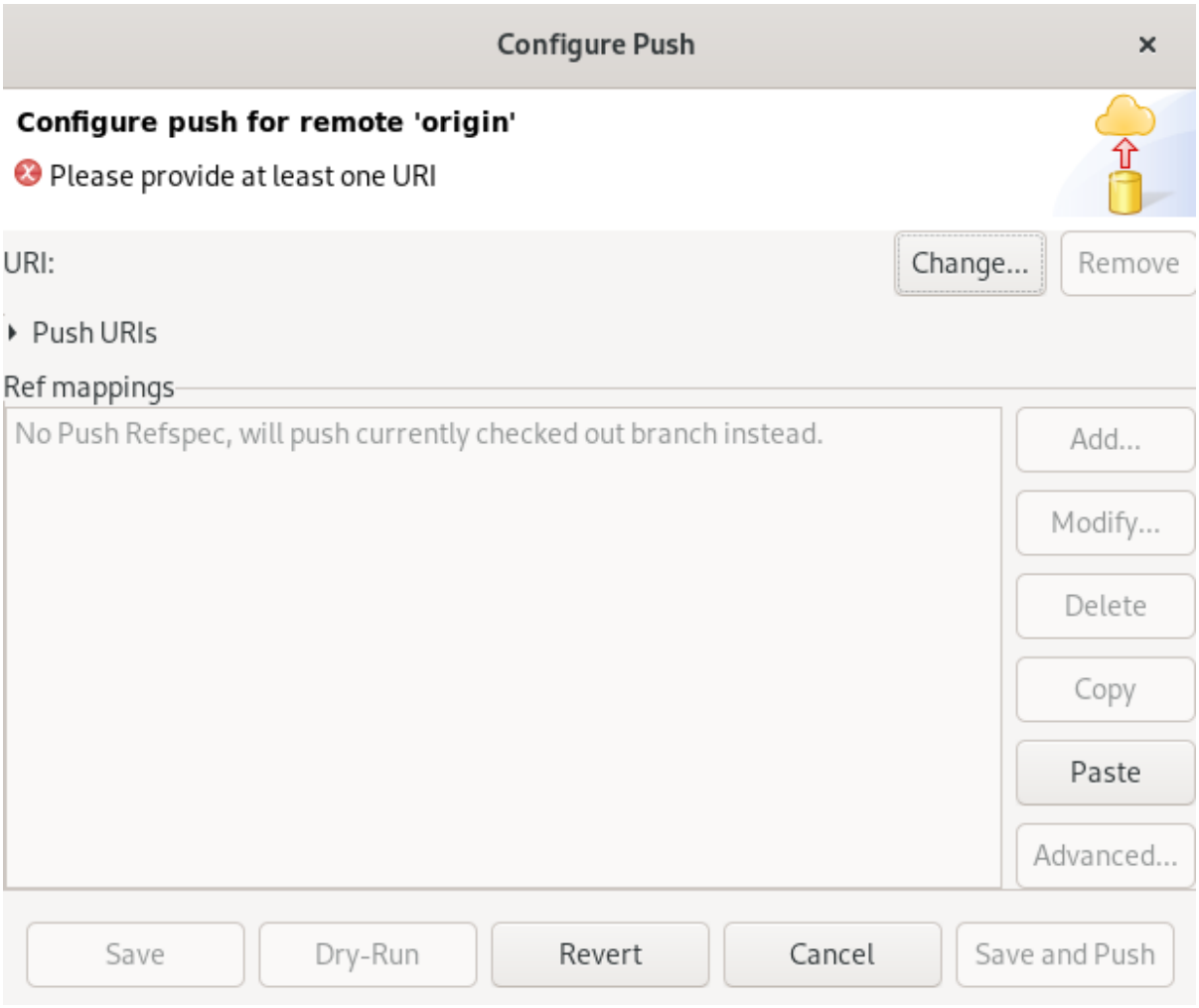
1. Start CodeReady Studio.
2. Open **Git Perspective**.
3. Expand your repository.



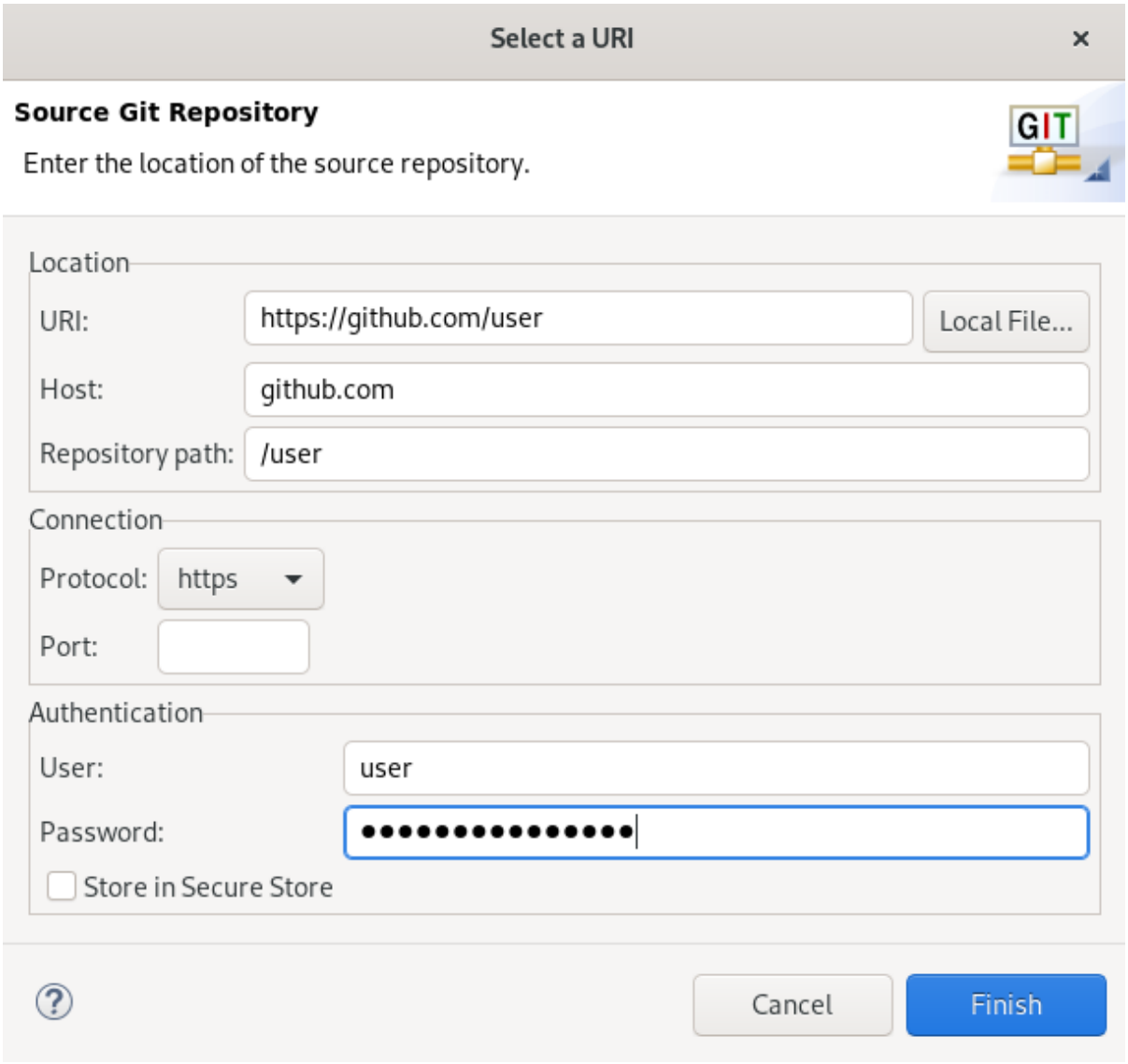
4. Right-click **Remotes → Create Remote**.
   The **New Remote** window appears.



5. Name your remote.
6. Ensure that **Configure push** is selected.
7. Click **Create**.
   The **Configure Push** window appears.

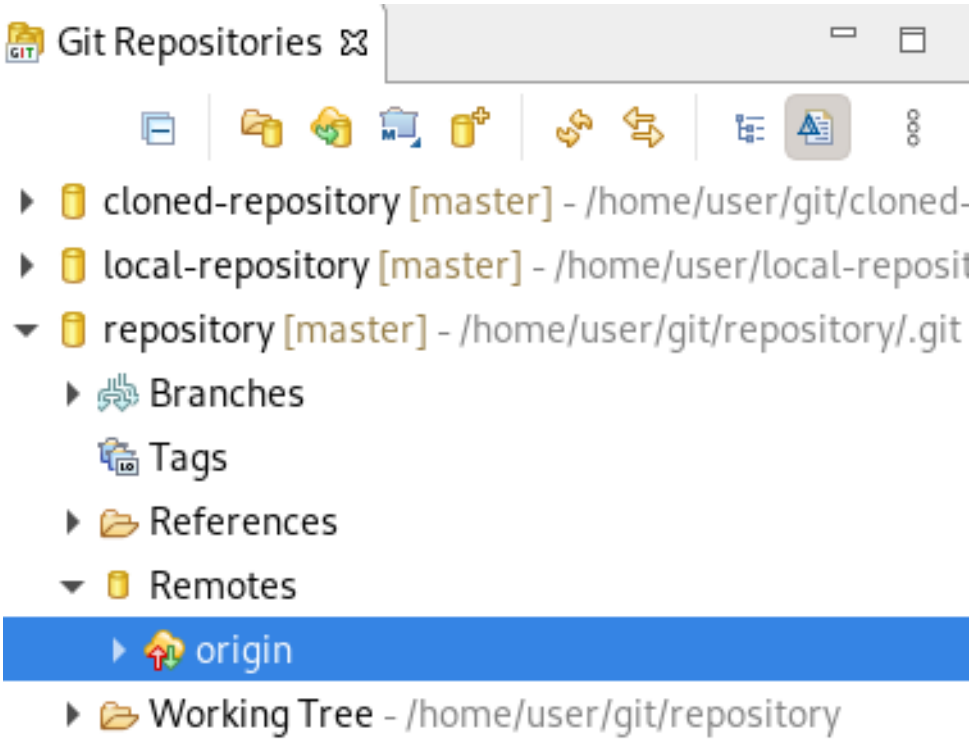


8. Click **Change**.
   The **Select a URI** window appears.



9. Add the URI, username and password for the source repository.
   The **Host** and **Repository** path fields are populated automatically.
10. Click **Finish**.
11. Click **Save**.

Your newly added remote is now listed in the **Git Repositories** view in CodeReady Studio.



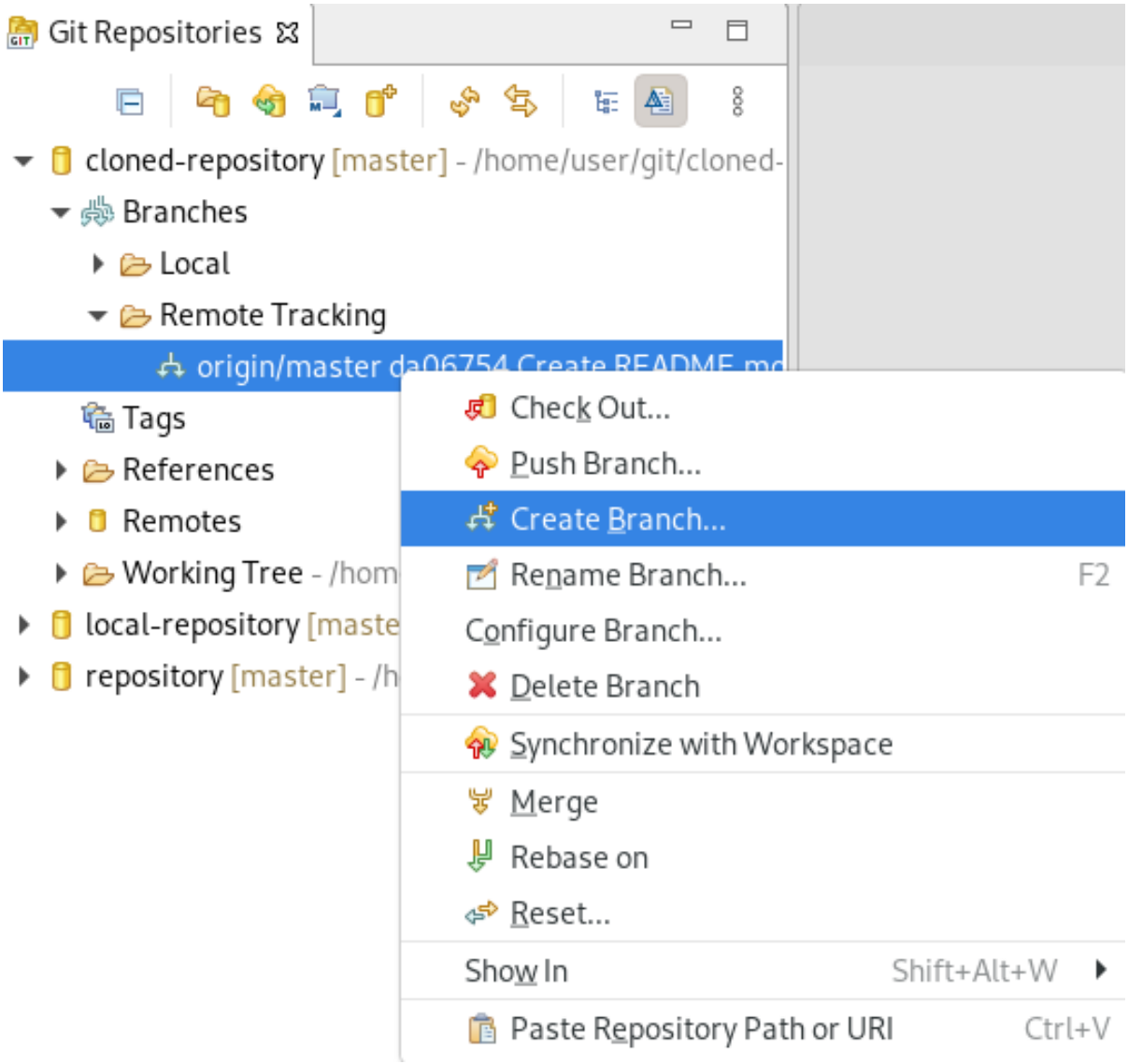
1.3. MANAGING BRANCHES IN GIT PERSPECTIVE

1.3.1. Creating a new branch

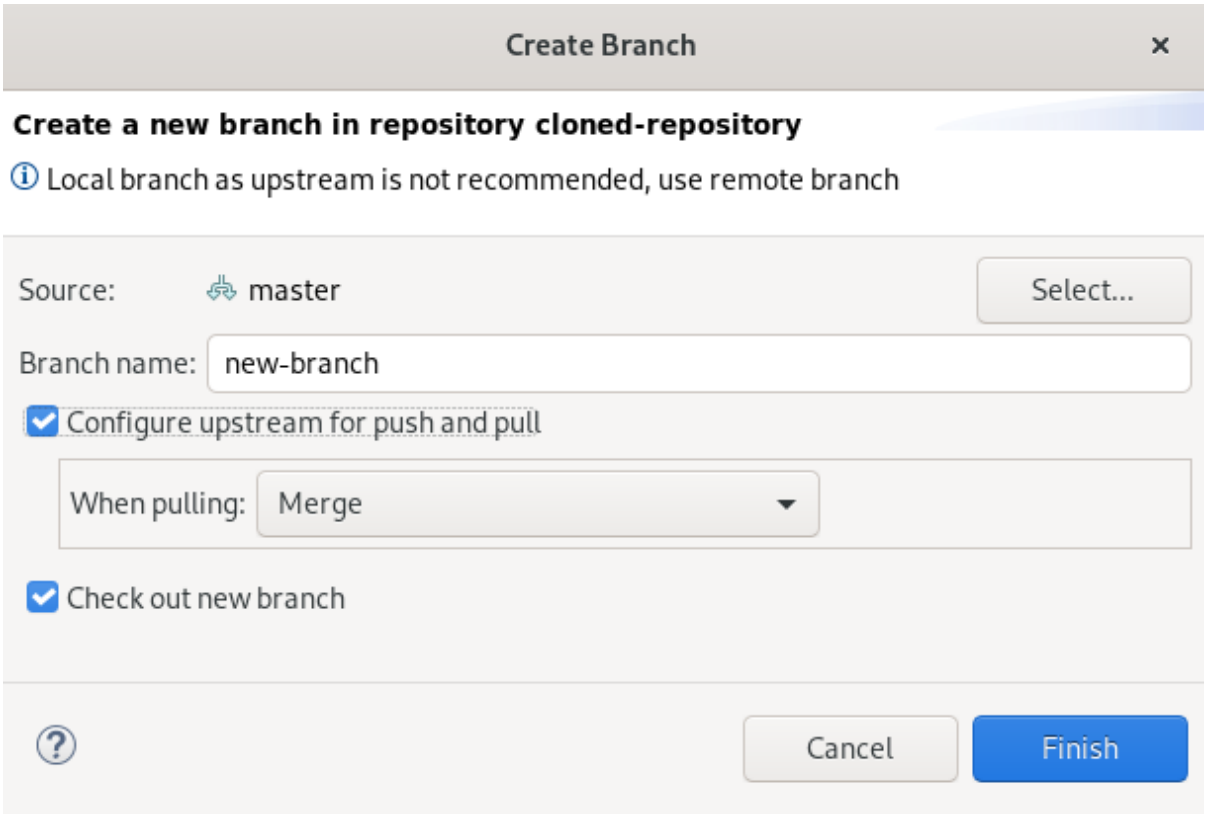
The following section describes how to use Git Perspective to create a new branch.

Procedure

1. Start CodeReady Studio.
2. Open **Git Perspective**.
3. Expand your repository.
4. Under **branches → Remote Tracking**, right-click **master → Create Branch**.

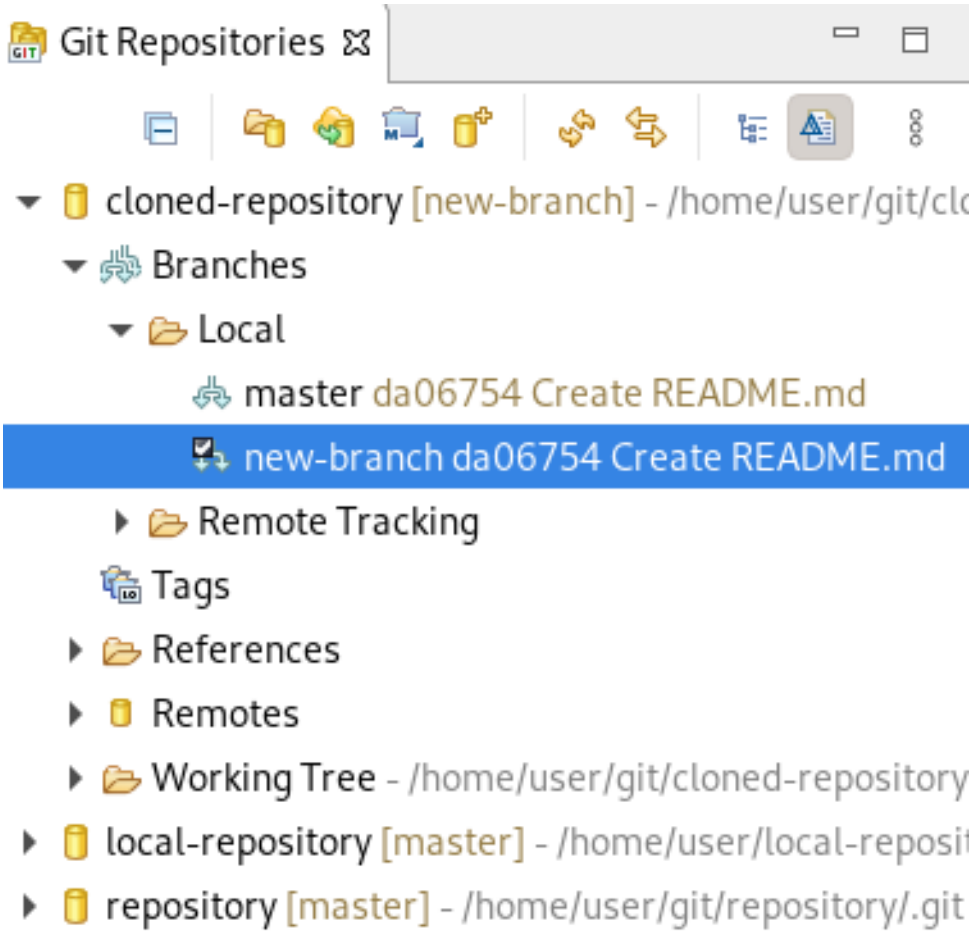


The **Create Branch** window appears.



5. Click **Select** to pick the source of the new branch.
6. Name your branch.
7. Select the **Configure upstream for push and pull**and **Checkout new branch** check boxes.
8. Select an option in the **When pulling** field.
9. Click **Finish**.

Your newly added branch is now listed in the **Git Repositories** view under **branches → Local** in CodeReady Studio.

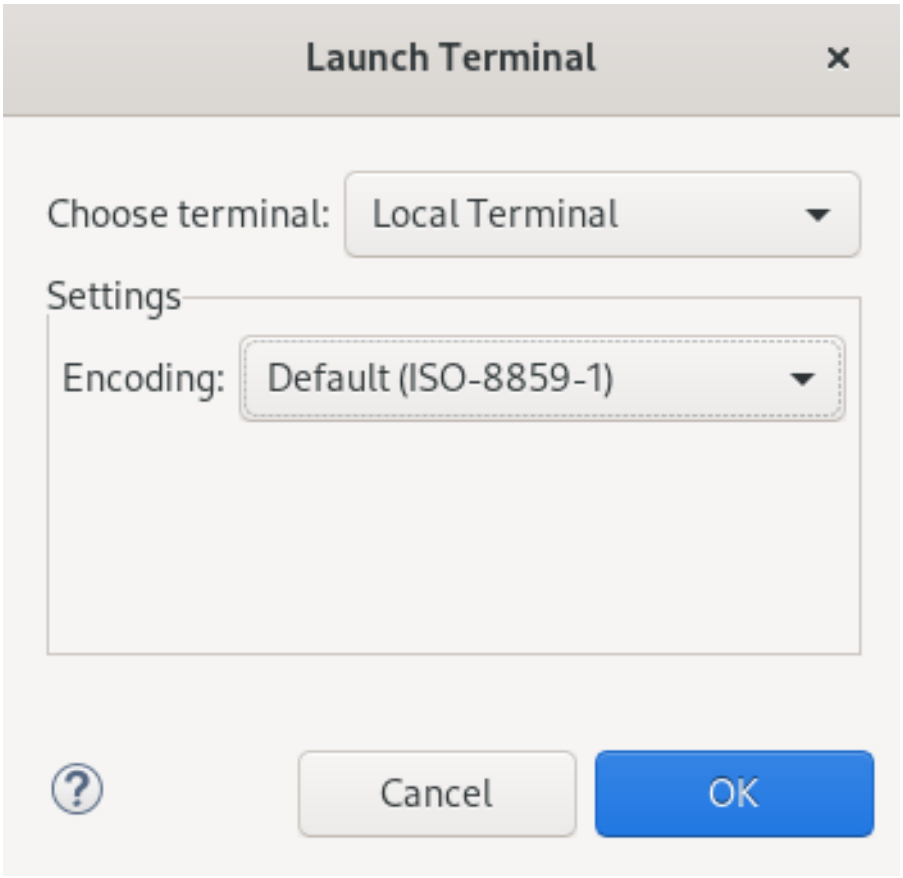


1.3.2. Working in the branch

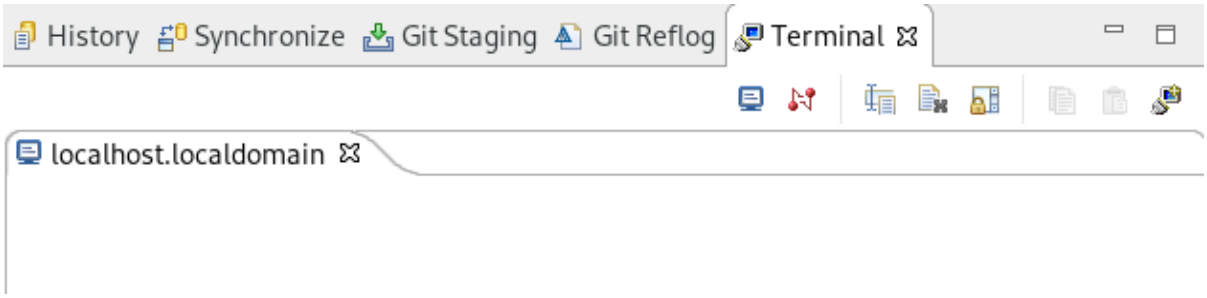
The following section describes how to open a built-in terminal in Git Perspective so you can work on the created branch.

Procedure

1. Start CodeReady Studio.
2. Open **Git Perspective**.
3. Press **Shift**+**Ctrl**+**Alt**+**T**.
   The **Launch Terminal** window appears.



4. Choose **Local Terminal**.
5. Set **Encoding** to **Default (ISO-8859-1)**.
6. Click **OK**.
   The **Terminal** window now displays the command-line terminal.



Note that by default the current working directory is the home directory of your current user.

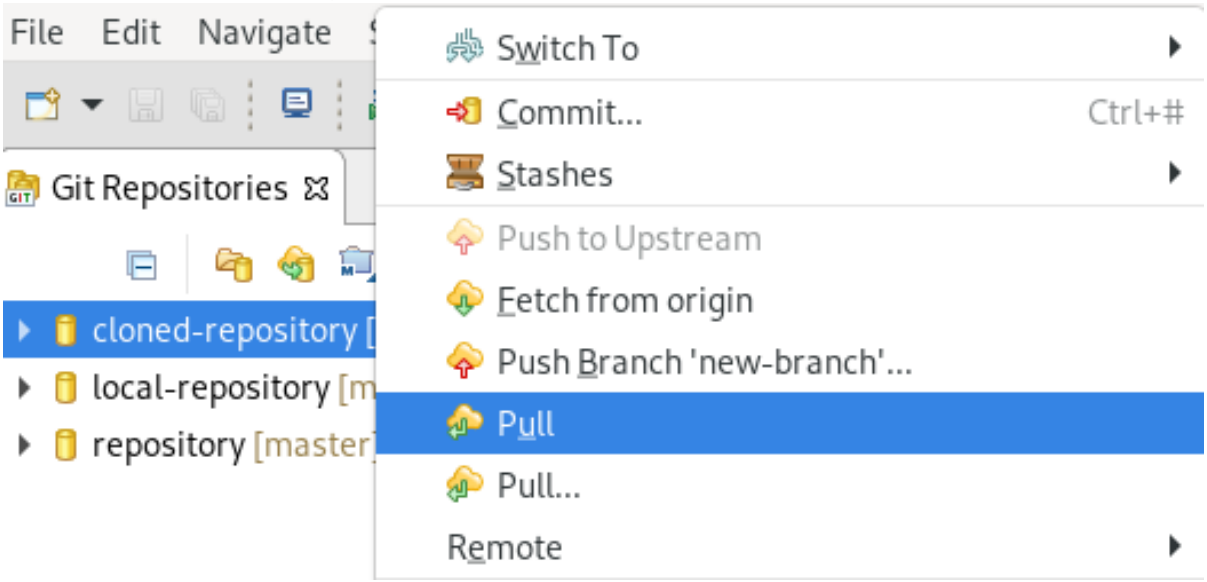
1.3.3. Updating your local repository

To avoid merge conflicts, update your local repository before merging your changes, especially when working in a shared repository.
To update your local repository, pull changes from the remote repository and merge them into your local repository.

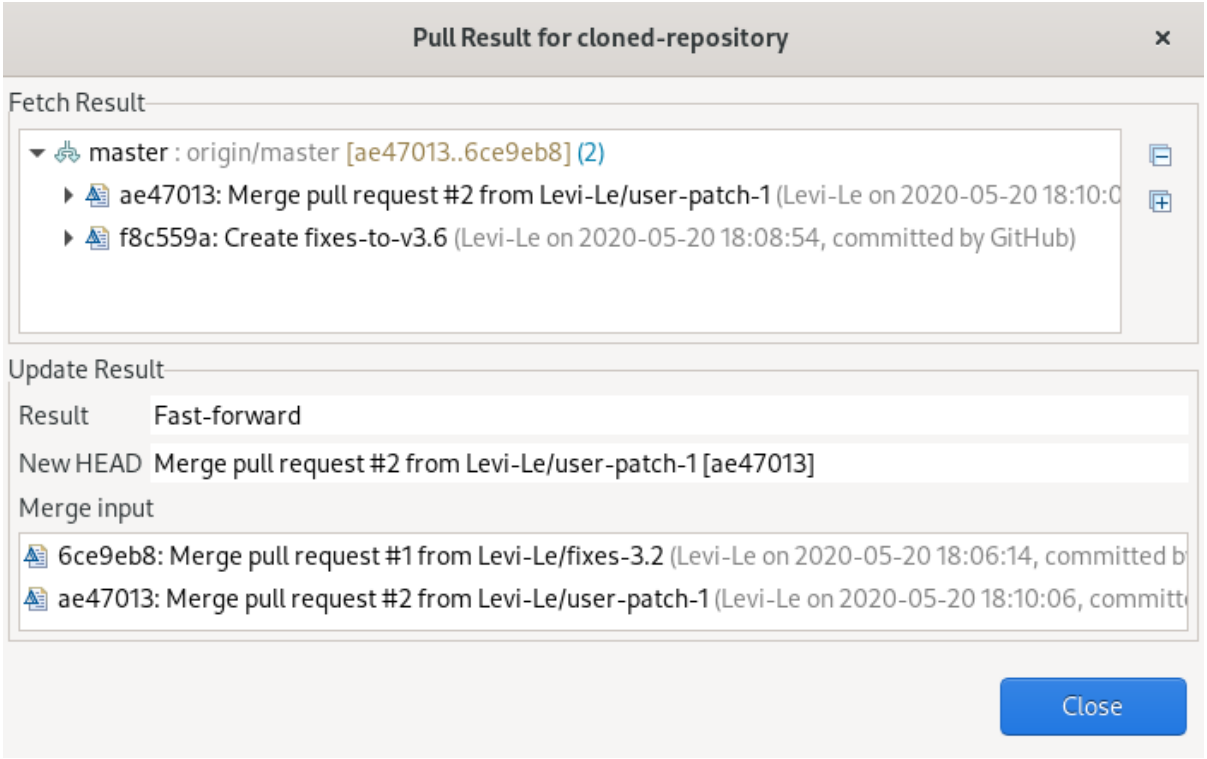
Procedure

1. Start CodeReady Studio.
2. Open **Git Perspective**.

3. Right-click your **repository → Pull**.



The **Pull Results** window appears.



4. Click **Close**.

Now the changes from the remote repository are merged into your local repository.

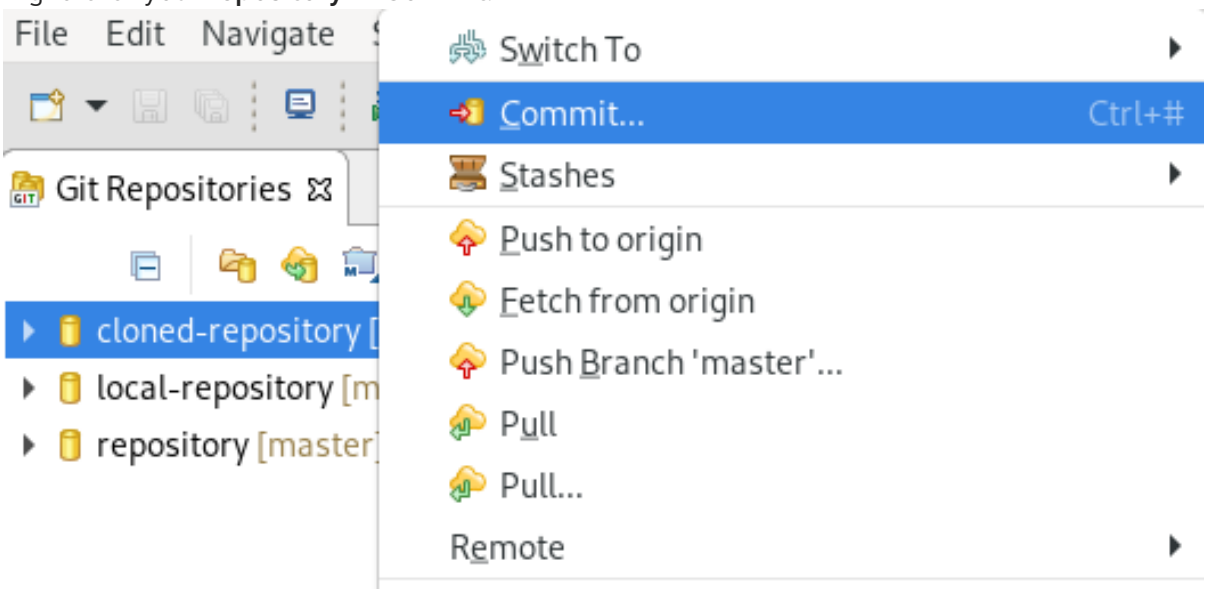
1.4. COMMITTING AND PUSHING CHANGES

The following section describes how to commit and push changes in CodeReady Studio.

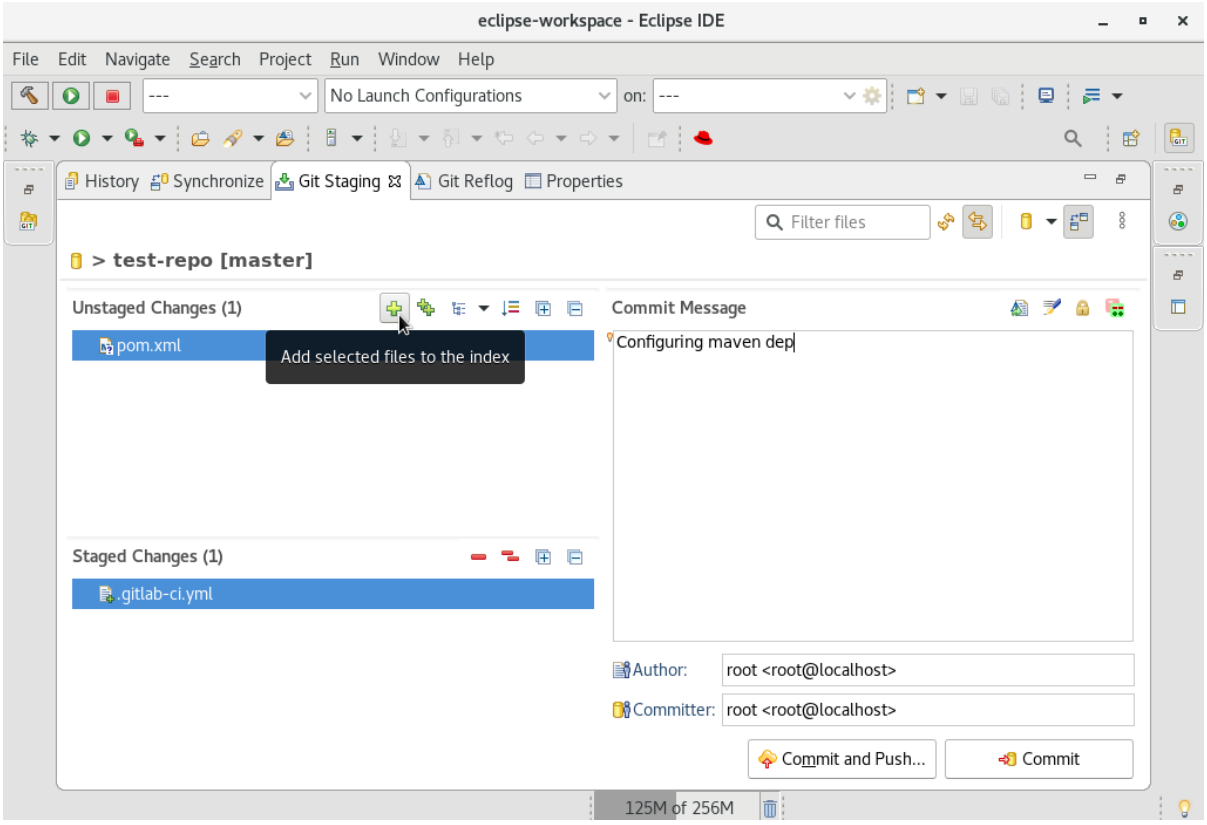
Procedure

1. Start CodeReady Studio.
2. Open **Git Perspective**.

3. Right-click your **repository → Commit**.



The **Git Staging** view appears.



4. Select the changes you want to stage.

5. Click the **Add selected files to the index**icon to stage the changes.

6. Add a commit message to the **Commit Message** field.
Author and **Committer** fields are populated automatically.

7. Click **Commit** to commit your changes, or **Commit and Push** to commit your changes and push them to the remote repository.

Note that when selecting the **Commit and Push** option you are prompted to enter the repository address, your access username, and password for the repository.

CHAPTER 2. MAVEN BASICS IN CODEREADY STUDIO

Maven provides a standardized build system for application development, and facilitates fetching dependencies from one or more repositories.

Root Maven projects can serve as aggregators for multiple Maven modules (sub-projects). For each module that is part of a maven project, a <module> entry is added to the project's **pom.xml** file. A **pom.xml** contains <module> entries and is often referred to as an **aggregator pom**.

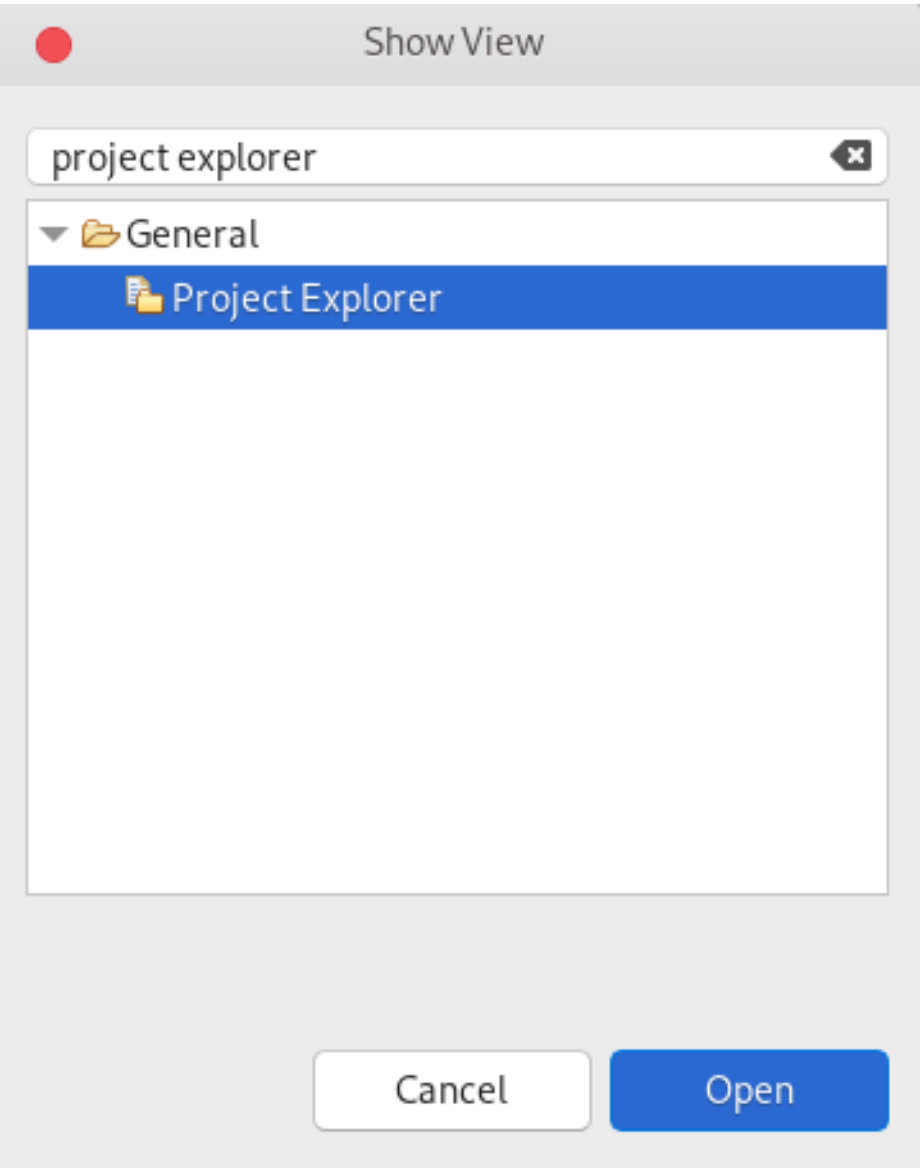
When modules are included into a project it is possible to execute Maven goals across all modules by a single command issued from the parent project directory.

2.1. CREATING A NEW MAVEN PROJECT

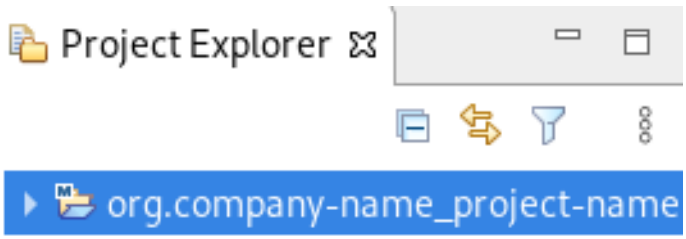
The following section describes how to create a new Maven project in CodeReady Studio.

Procedure

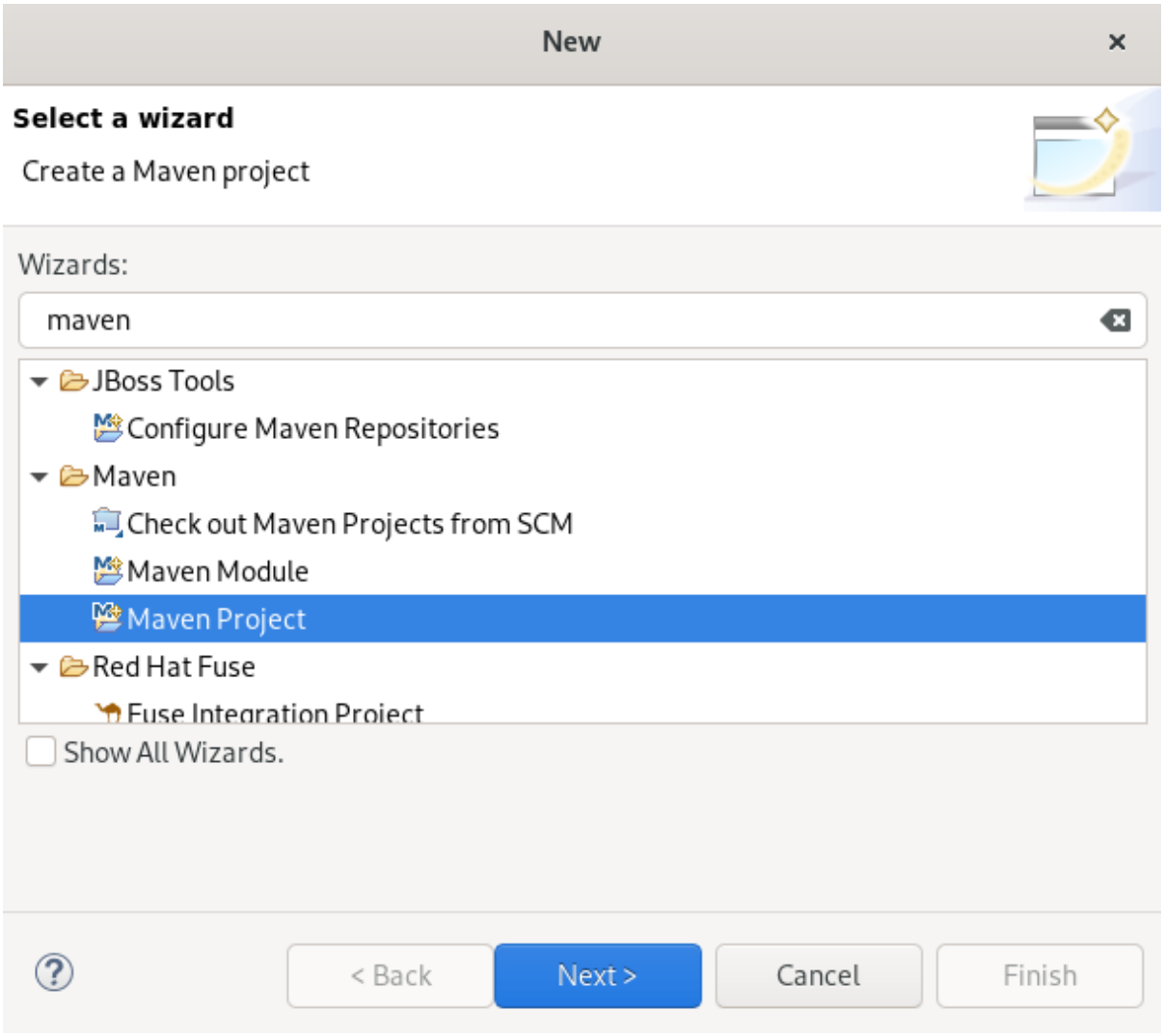
1. Start CodeReady Studio.
2. Click **Window → Show View → Other**.
   The **Show View** window appears.



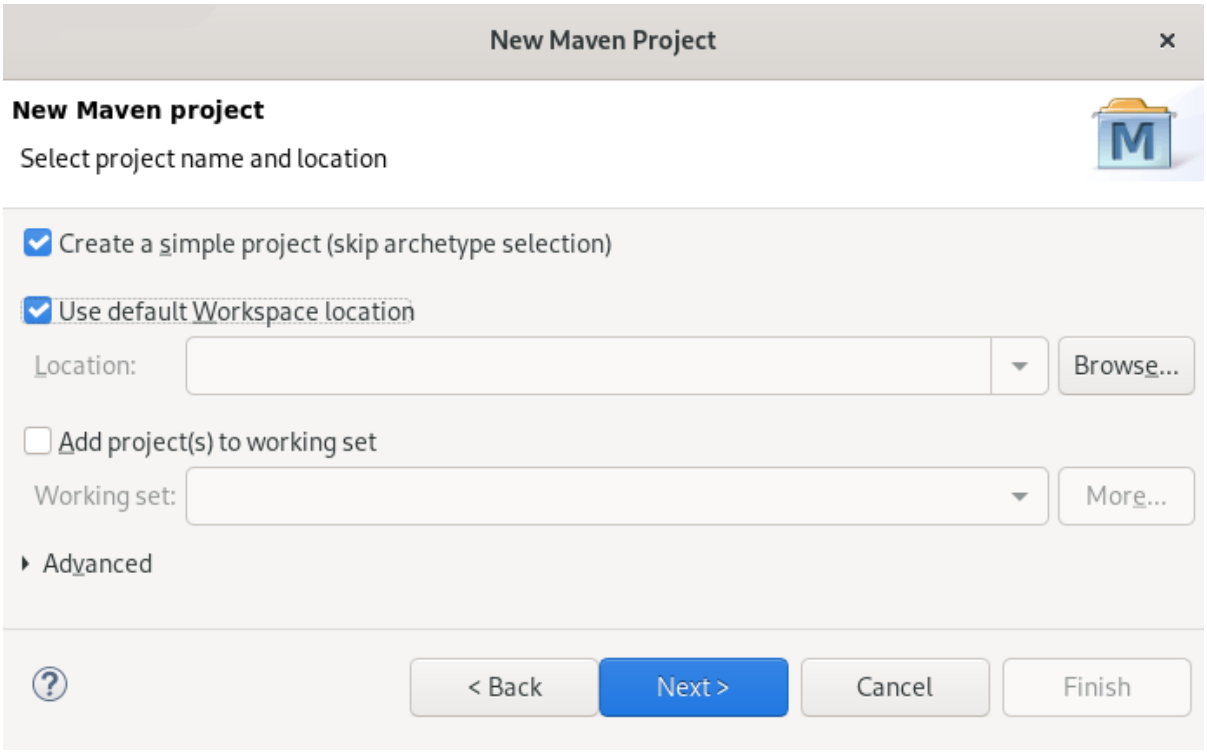
3. Enter Project Explorer in the search field.
4. Select Project Explorer.
5. Click **Open**.
   The Project Explorer view appears.



6. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



7. Enter **Maven** in the **Wizards** field.
8. Select **Maven Project**.
9. Click **Next**.
   The **New Maven Project** window appears.



10. Select the **Create a simple project**check box.

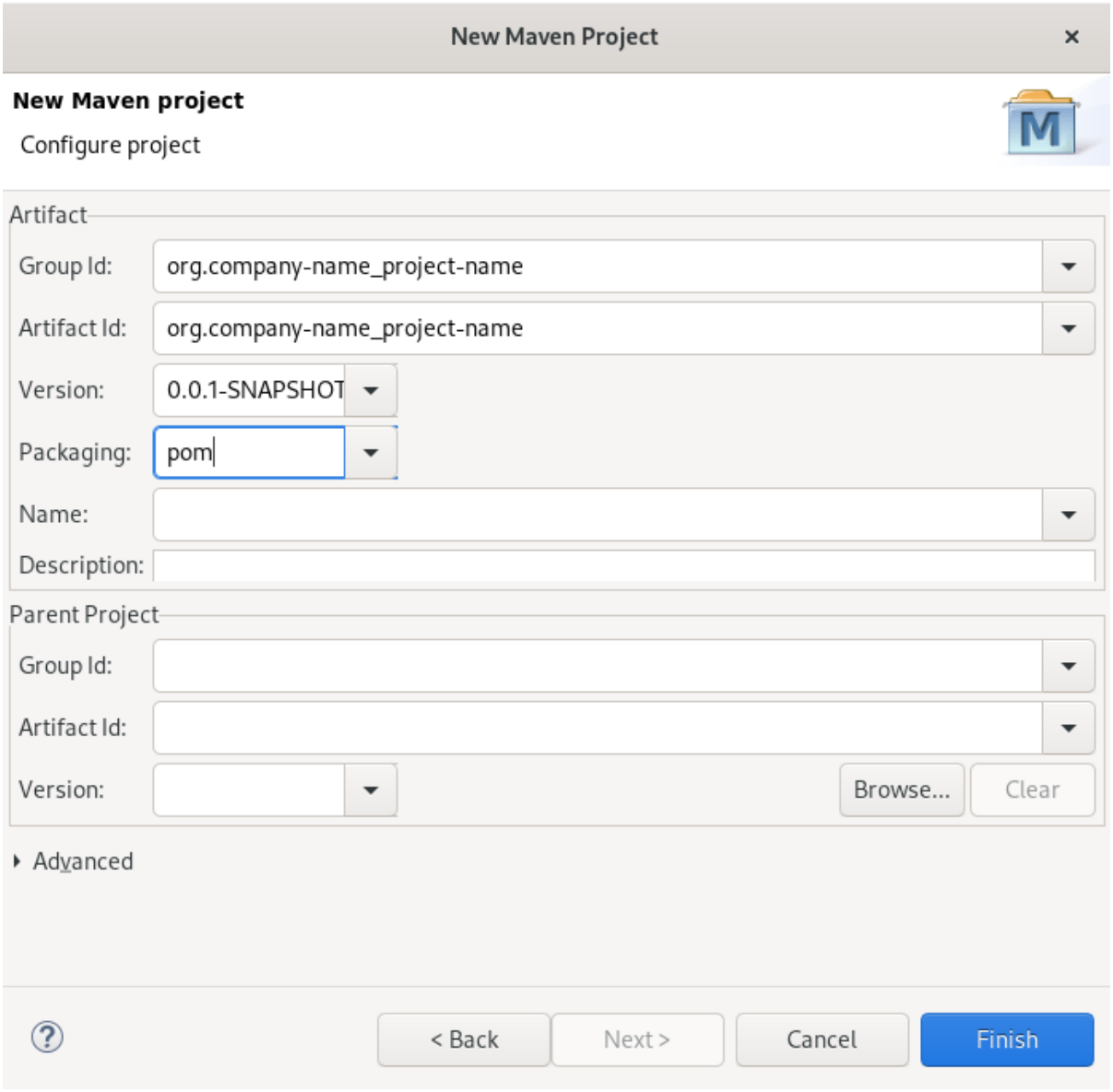
NOTE

By selecting the **Create a simple project**check box you are skipping the archetype selection and the project type is automatically set to Project Object Model (POM), which is a requirement for multi-module Maven projects.

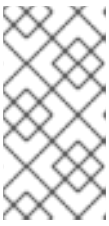
To create a standalone Maven project instead, clear the **Create a simple project**check box and follow the onscreen instructions to set the packaging option to **jar** or **war**.

11. Click **Browse** to select the workspace location.

12. Click **Next**.



13. Enter the group ID and the artifact ID.



NOTE

The values for the IDs cannot include spaces or special characters. The only special characters allowed are periods (**.**), underscores (_), and dashes (**-**). An example of a typical group ID or artifact ID is **org.company-name_project-name**.

Optionally, you can name your project and add a description.

14. Set **Packaging** to **pom**, **jar** or **war**.
15. Click **Finish**.

Your newly created Maven project is now listed in the Project Explorer view.

2.2. IMPORTING EXISTING MAVEN PROJECTS

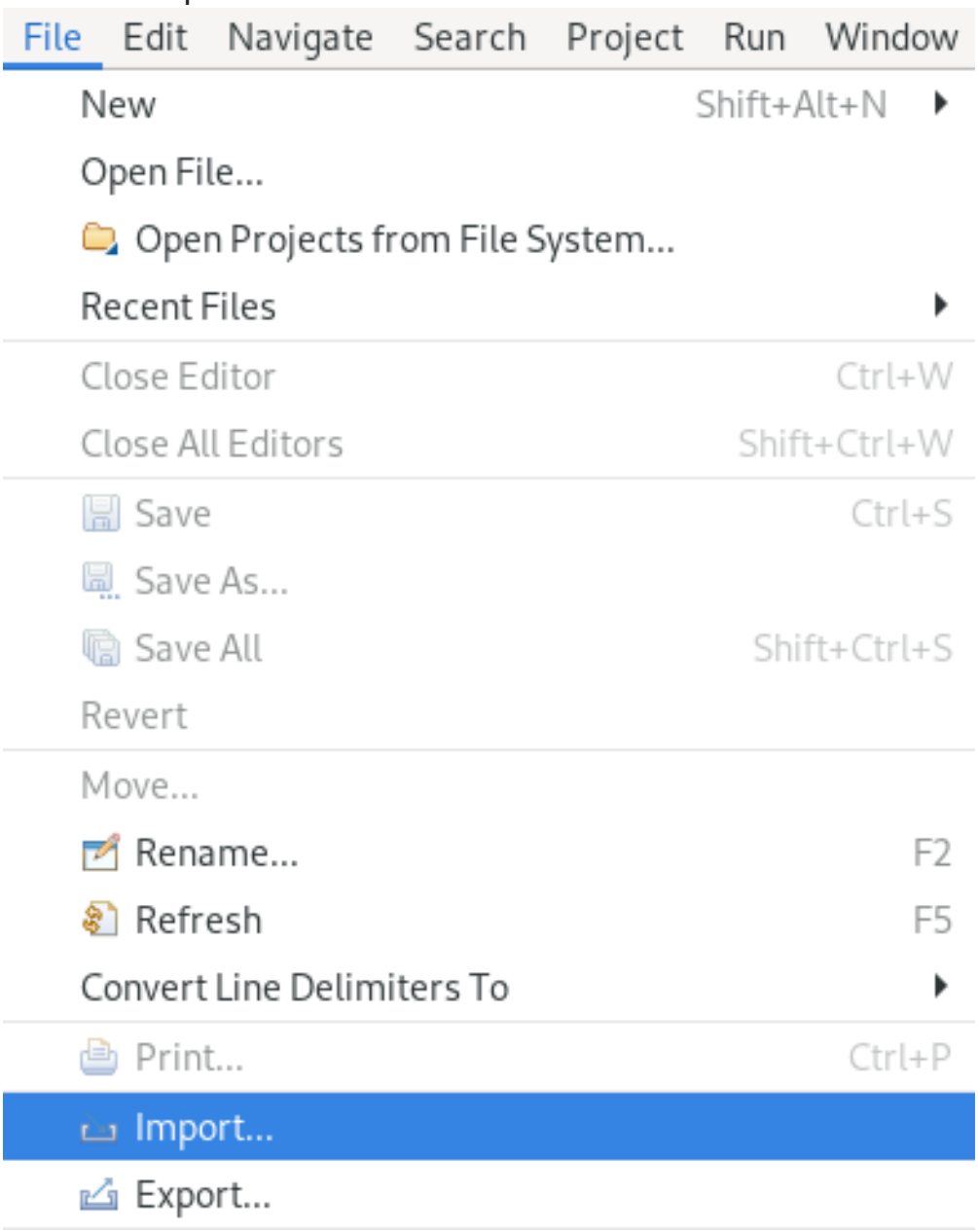
The following section describes how to import existing Maven projects into CodeReady Studio.

2.2.1. Importing an existing locally stored Maven project

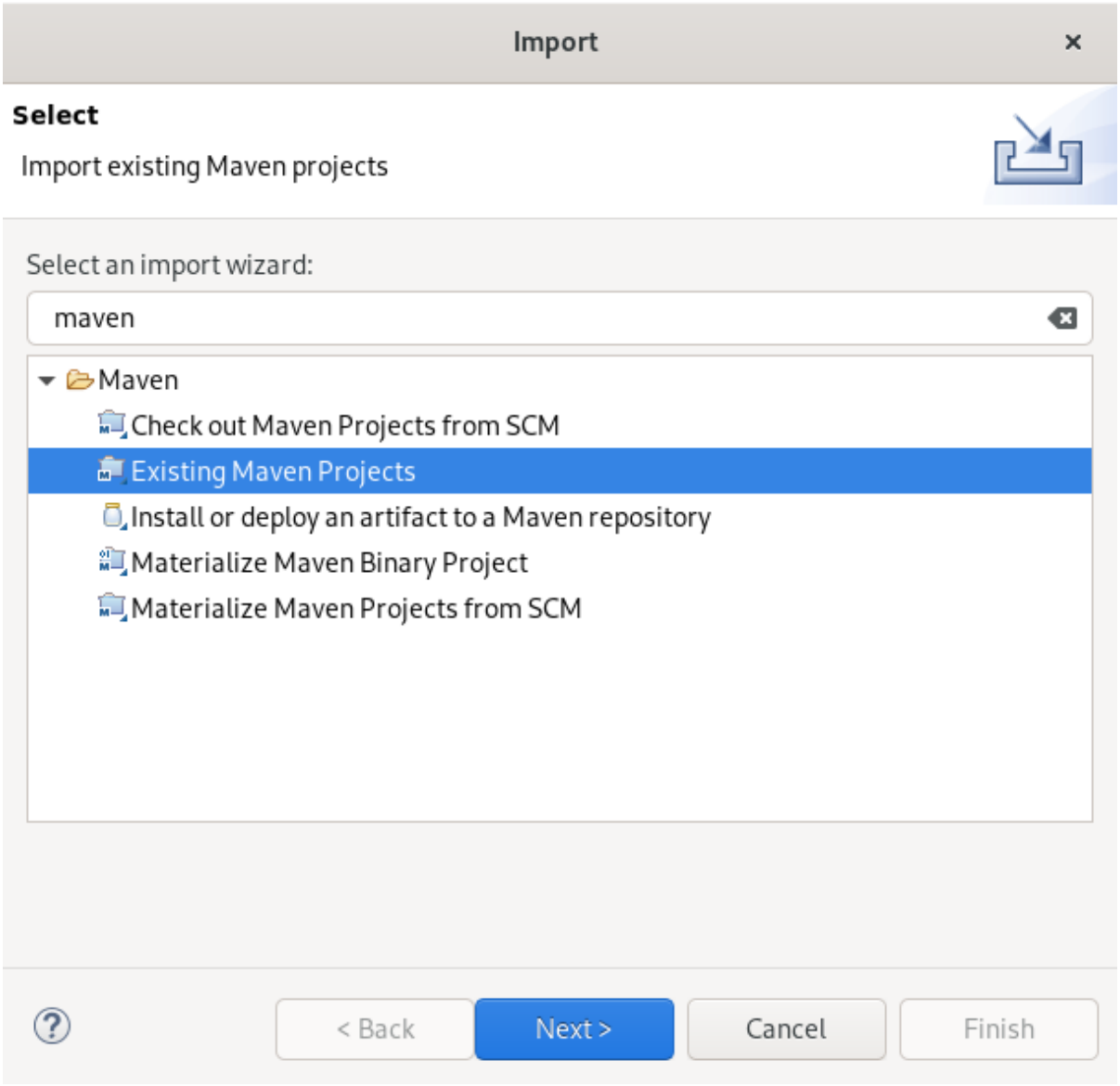
The following section describes how to import an existing locally stored Maven project into CodeReady Studio.

Procedure

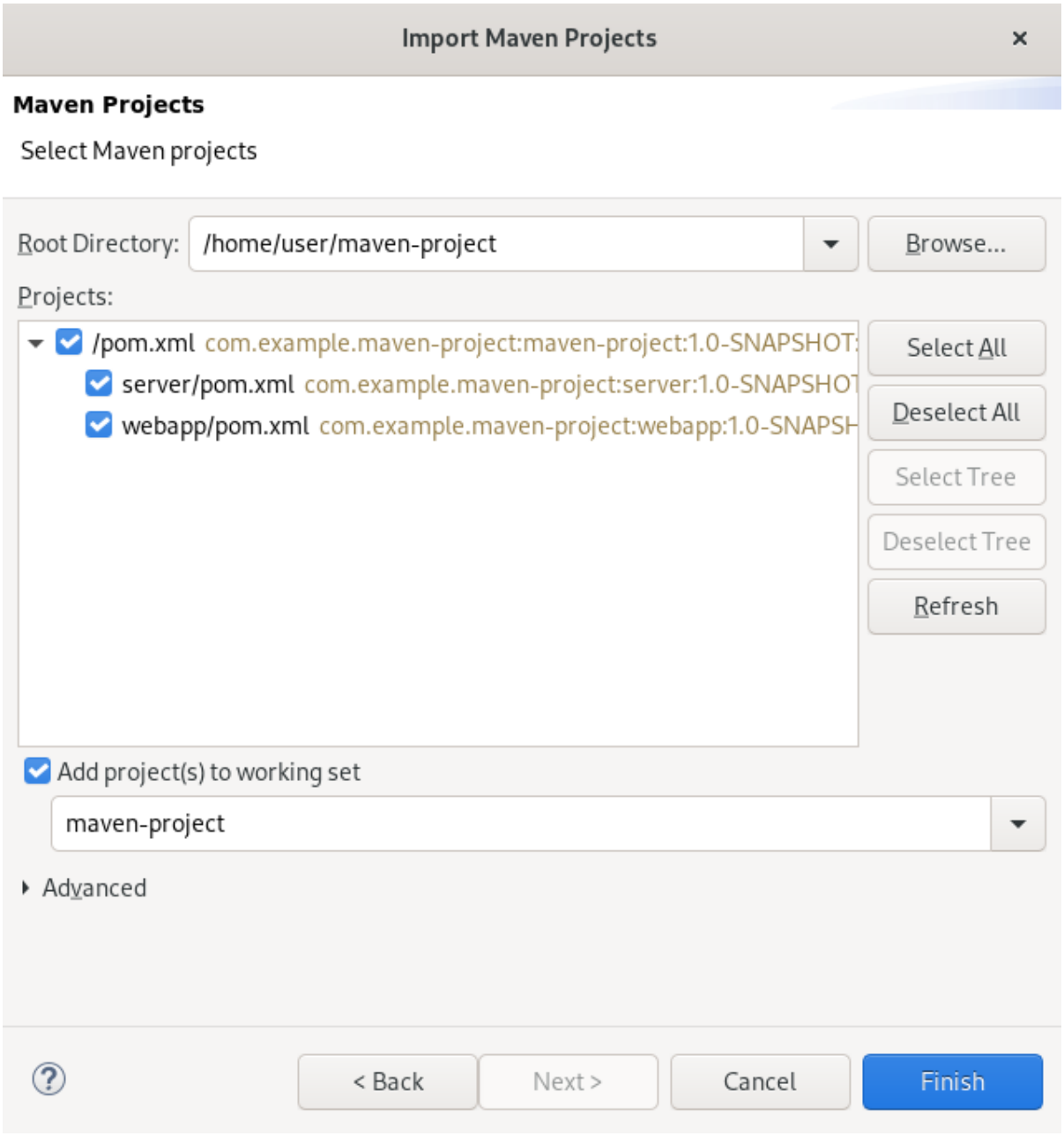
1. Start CodeReady Studio.
2. Click **File → Import**.



The **Import** window appears.



3. Enter **Maven** in the **Select an import wizard** field.
4. Select **Existing Maven Projects**
5. Click **Next**.
   The **Import Maven Project** window appears.



6. Click **Browse** to locate your Maven project.
7. Select the **Add project(s) to working set**check box.
8. Click **Finish**.

Your local Maven project is now listed in the Project Explorer view.

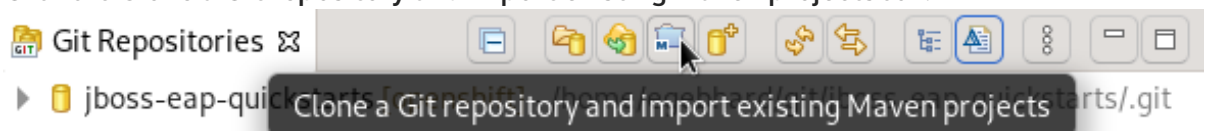
2.2.2. Importing an existing remotely stored Maven project

The following section describes how to import an existing remotely stored Maven project into CodeReady Studio.

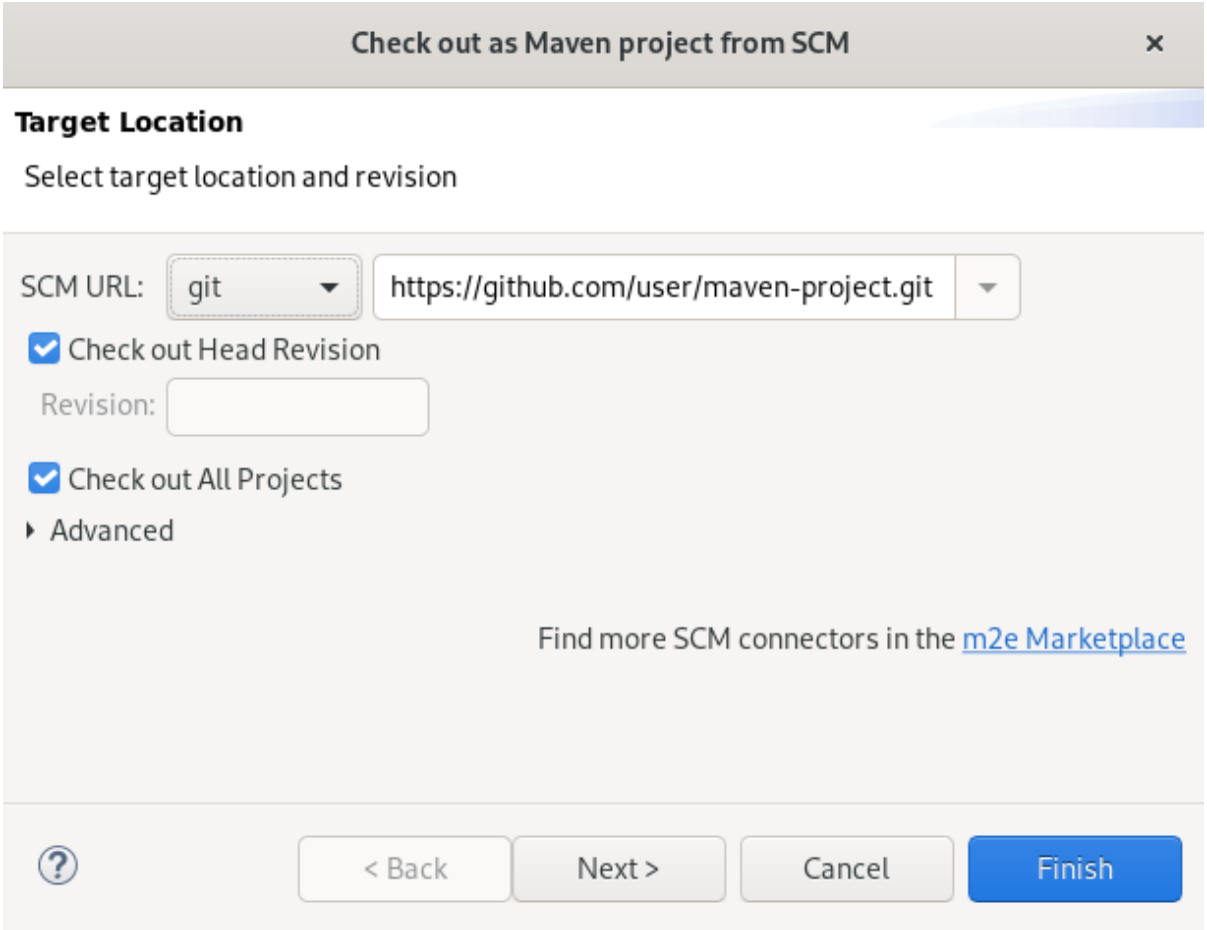
Procedure

1. Start CodeReady Studio.
2. Open Git Perspective.

3. Click the **Clone a Git repository and import existing Maven projects** icon.

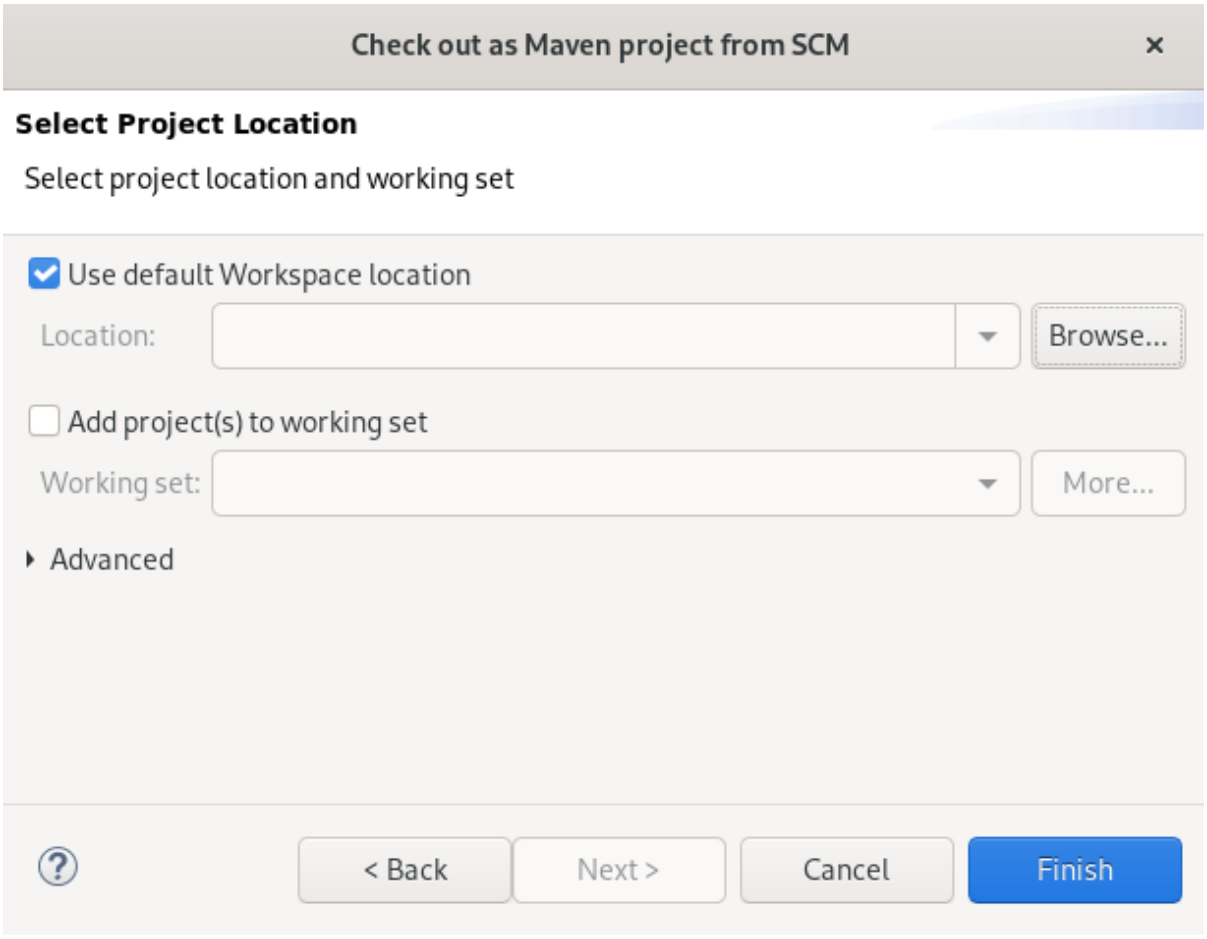


The **Check out as Maven project from SCM** window appears.



4. Add the address for the source repository to the **SCM URL** field.

5. Click **Next**.
The **Select Project Location** window appears.



6. Click **Browse** to select the workspace location.
7. Click **Finish**.

Your remote Maven project is now listed in the **Git Repositories** view.

2.3. CREATING A NEW MAVEN MODULE

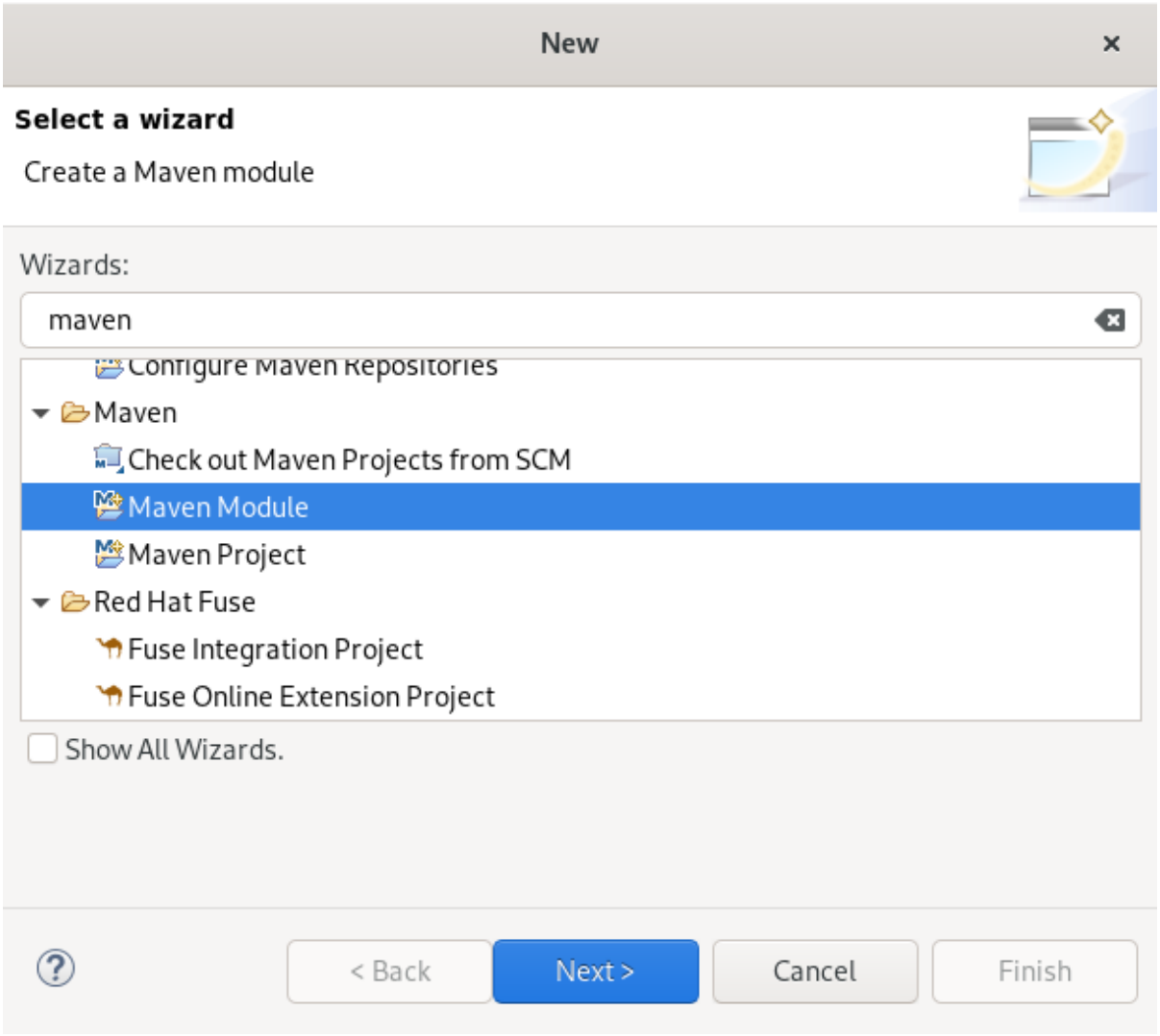
The following section describes how to create a new Maven module.

Prerequisites

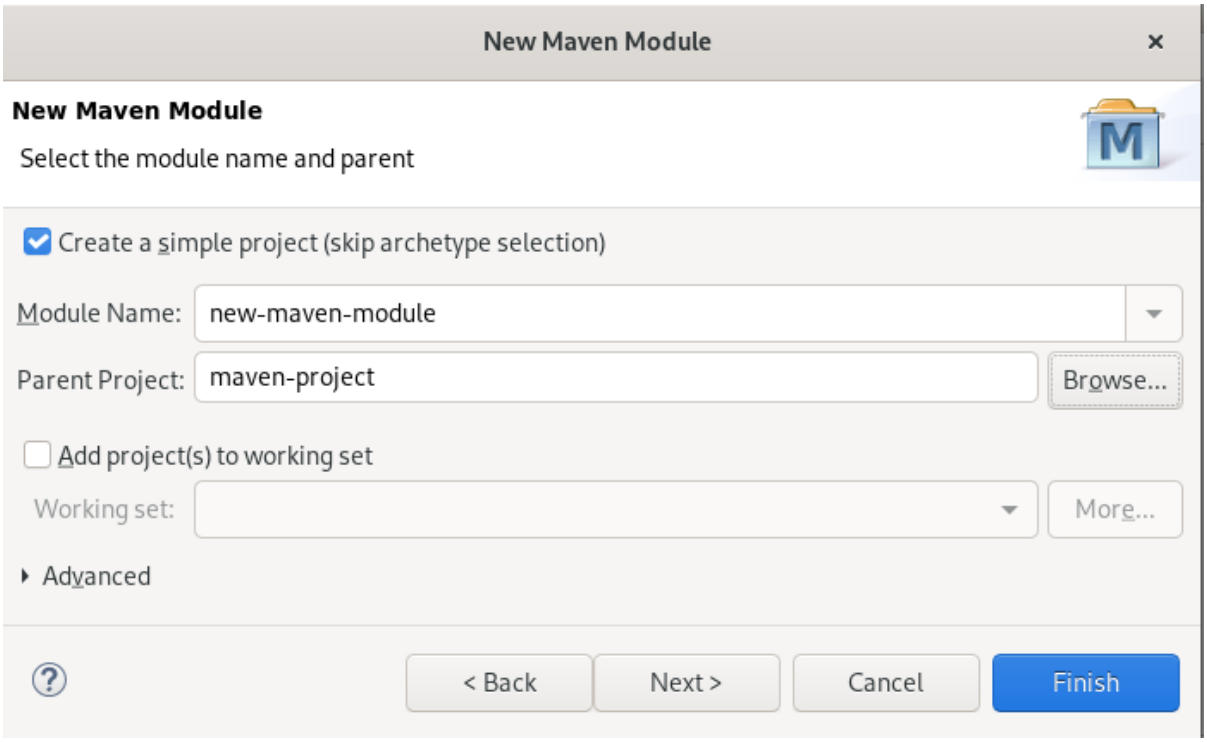
- An existing Maven project.
  For more information on how to create a Maven project, see Section 2.1, “Creating a new Maven project”.

Procedure

1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



3. Enter **Maven** in the **Wizards** field.
4. Select **Maven Module**.
5. Click **Next**.
   The **New Maven Module** window appears.



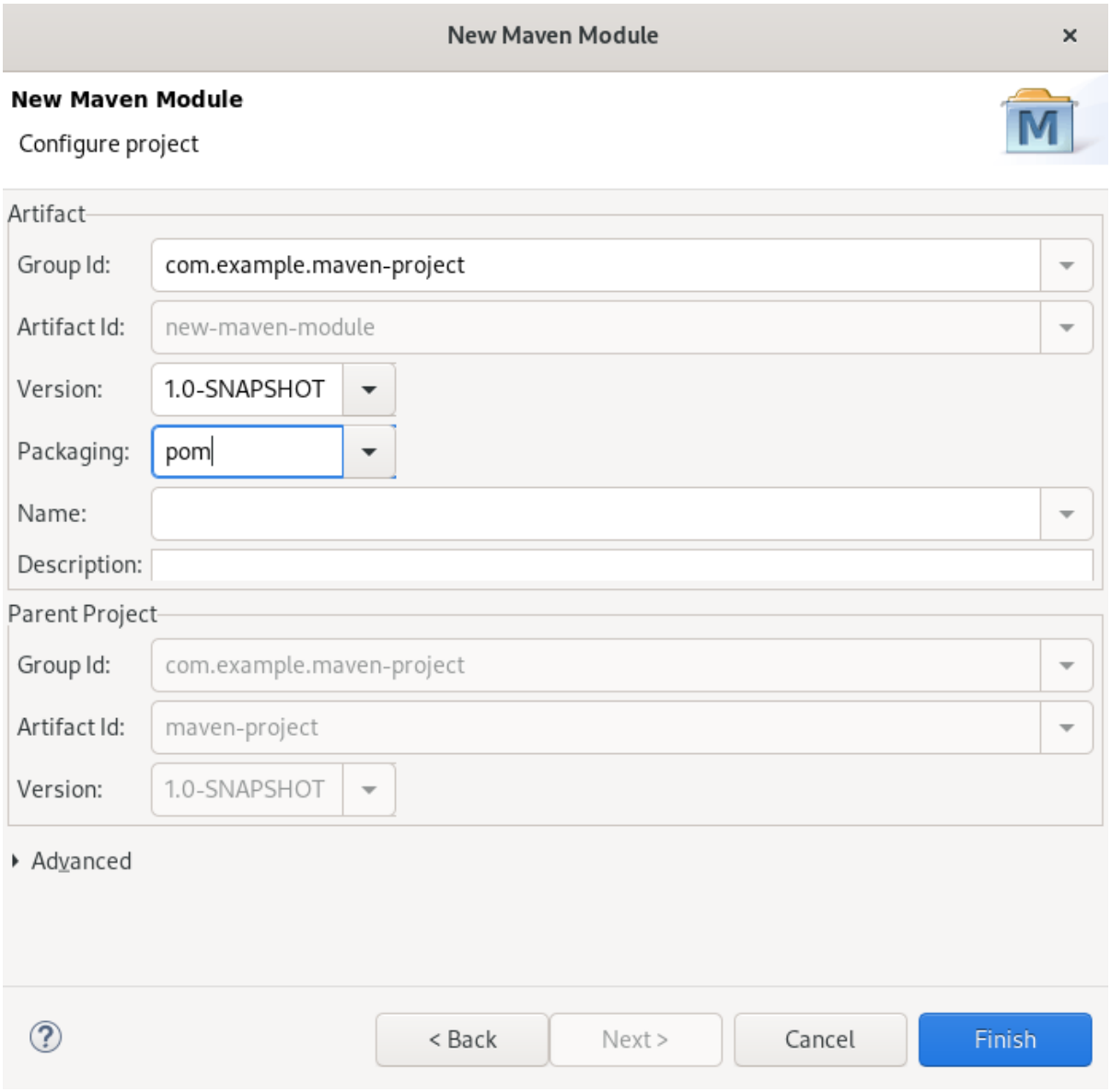
6. Select the **Create a simple project**check box.

NOTE

By selecting the **Create a simple project**check box you are skipping the archetype selection and the project type is automatically set to Project Object Model (POM), which is a requirement for multi-module Maven projects.

To create a standalone Maven project instead, clear the **Create a simple project**check box and follow the onscreen instructions to set the packaging option to **jar** or **war**.

7. Name your module.
8. Click **Browse** to select the parent project.
9. Click **Next**.
The **Configure Project** window appears.



10. Set **Packaging** to **pom**, **jar** or **war**.
    Optionally, you can name your module and add a description.

11. Click **Finish**.

Your newly created Maven module is now listed below your Maven project.

2.4. ADDING A MAVEN DEPENDENCY TO A MAVEN PROJECT

The following section describes how to add a Maven dependency to a Maven project in CodeReady Studio.

Prerequisites

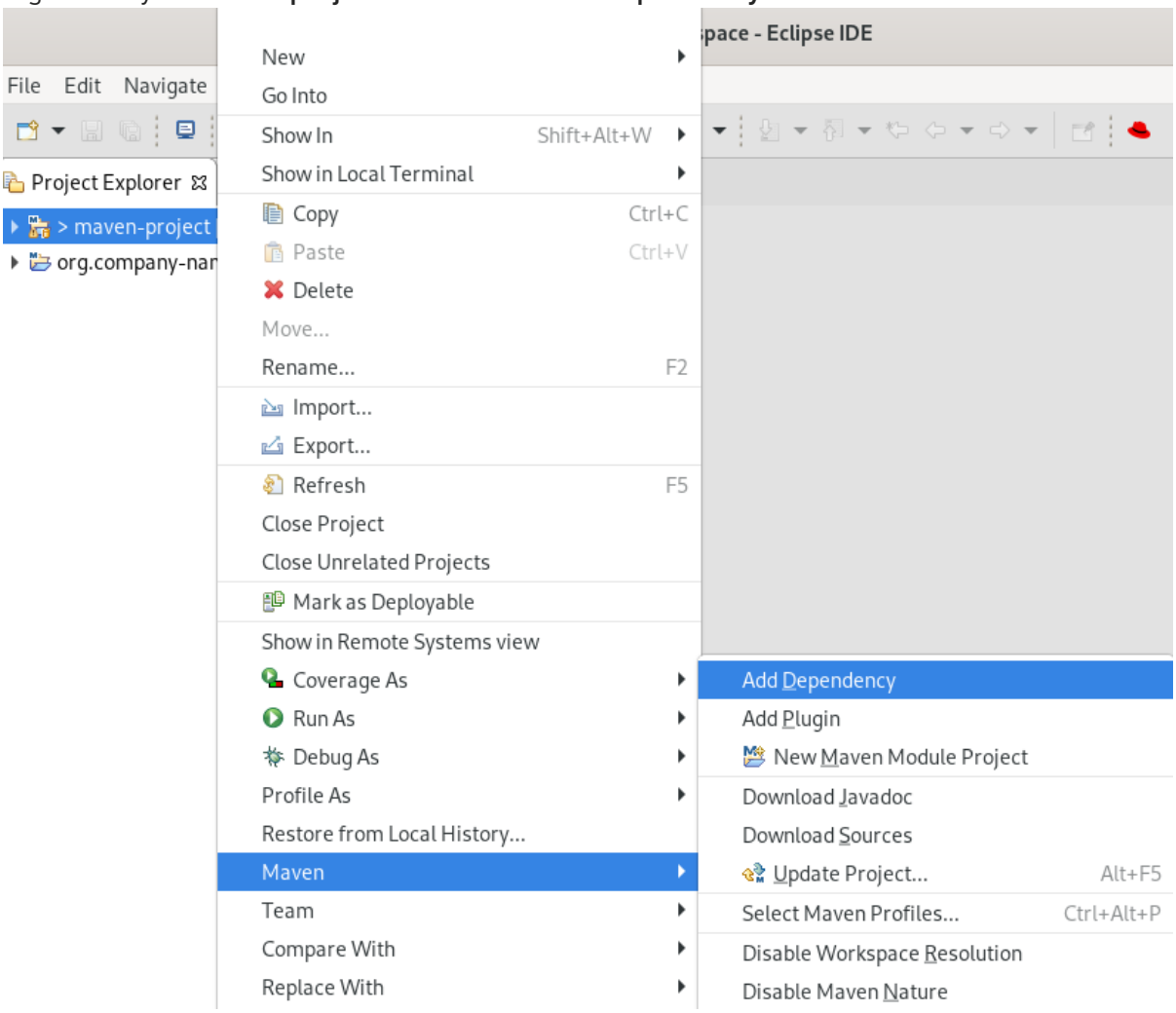
- An existing Maven project.
  For more information on how to create a Maven project, see Section 2.1, "Creating a new Maven project".

Procedure

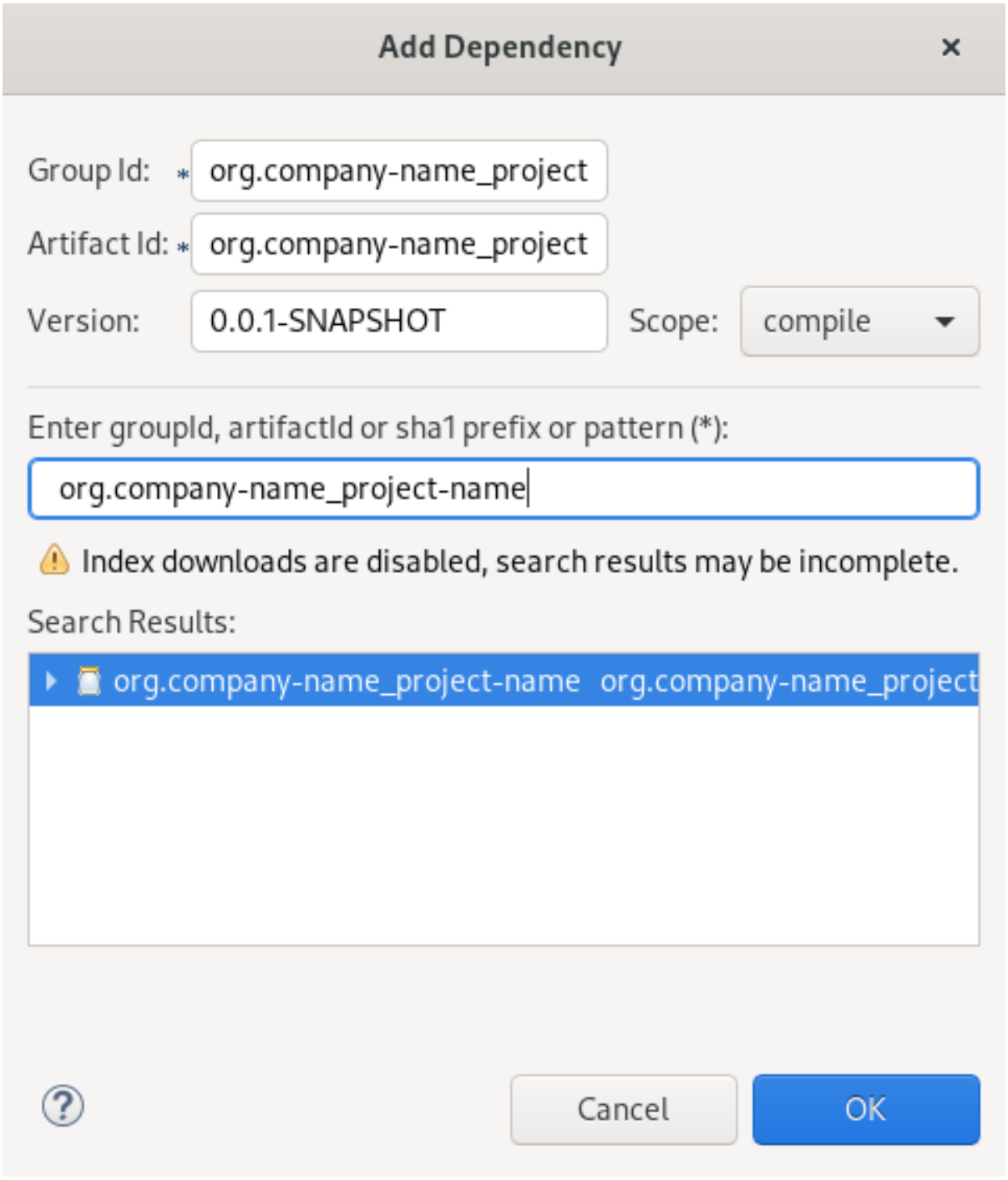
1. Start CodeReady Studio.

2. Open Project Explorer.

3. Right-click your Maven **project → Maven → Add Dependency**.



The **Add Dependency** window appears.



4. Enter the group ID or the artifact ID in the **Enter groupId, artifactId or sha1 prefix or pattern** field.
   The fields above are populated automatically.

5. Click **OK**.

The dependency is now added to the **pom.xml** file of your project.

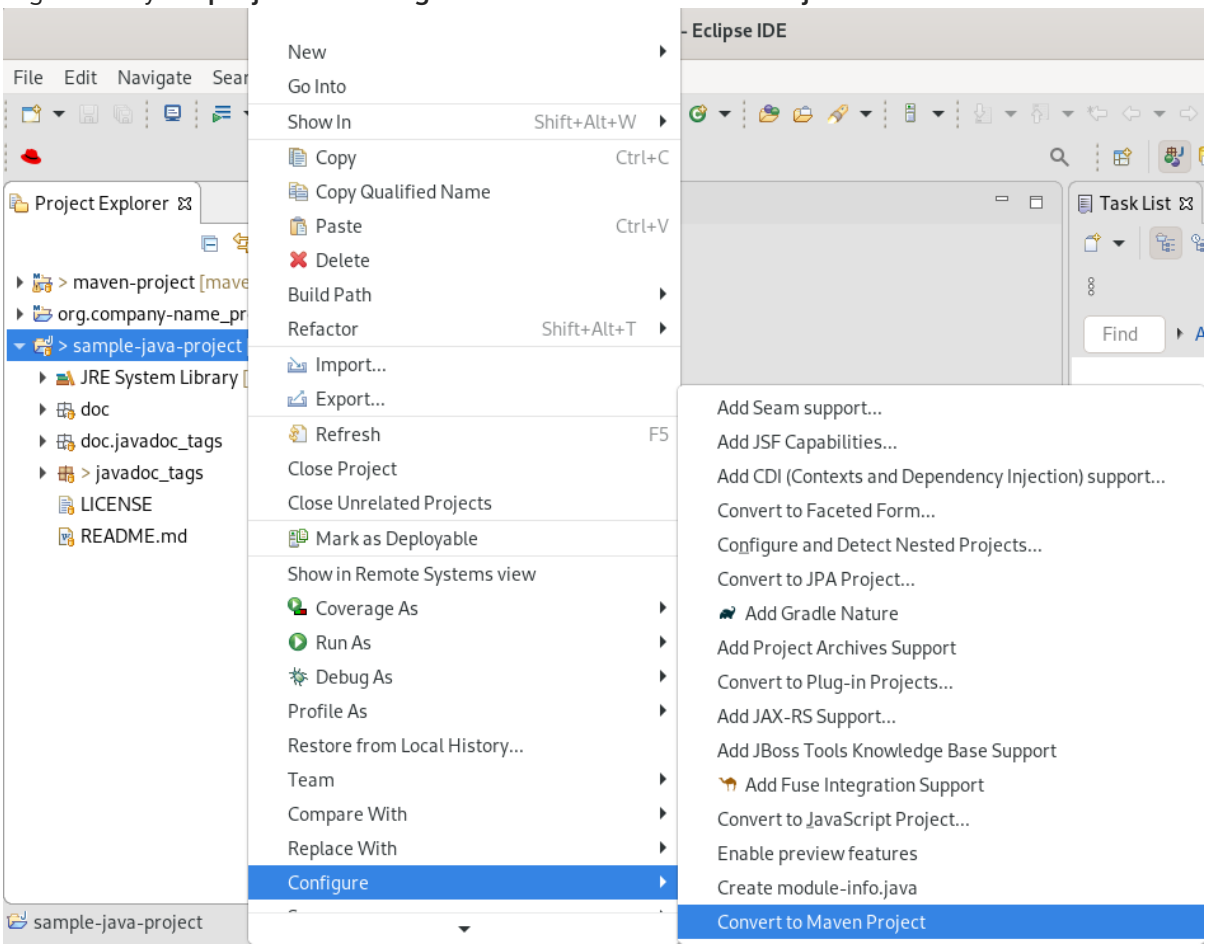
2.5. ADDING MAVEN SUPPORT TO AN EXISTING NON-MAVEN PROJECT

The following section describes how to add Maven support to an application created without Maven support.

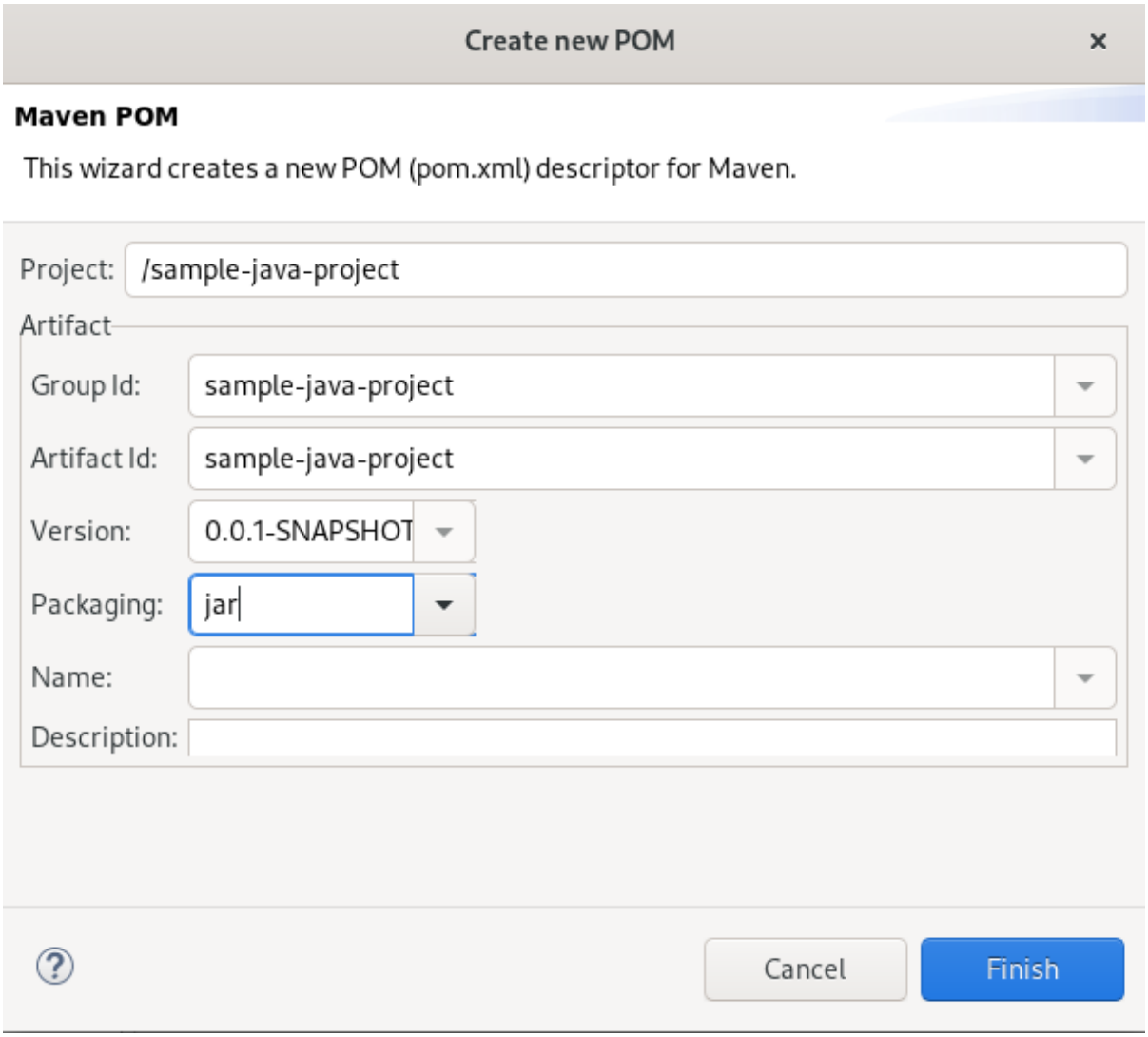
1. Start CodeReady Studio.

2. Open Project Explorer.

3. Right-click your **project → Configure → Convert to Maven Project**



The **Create a new POM** window appears.



All fields are populated automatically. If you want to change the group ID or the artifact ID, note that the values cannot include spaces or special characters. The only special characters allowed are periods (**.**), underscores (_), and dashes (**-**). An example of a typical group ID or artifact ID is org.company-name_project-name.

4. Click **Finish**.
   Your newly generated **pom.xml** file appears under your Java project.

2.6. ADDITIONAL RESOURCES

- For more information on how to use the Maven software project management and comprehension tool, see the JBoss Community Archive.

CHAPTER 3. APPLICATION DEPLOYMENT IN CODEREADY STUDIO

In order to deploy applications to a server from within CodeReady Studio you must configure the IDE with information about the server. For a local server this information includes the following:

- A server runtime environment with details about the server location, runtime JRE, and configuration files
- A server adapter with management settings for the server runtime environment, including access parameters, launch arguments, and publishing options

JBoss Server Tools enables you to efficiently configure a local server ready for use with CodeReady Studio using Runtime Detection. This feature is useful for quickly configuring a server for deploying and testing an application.

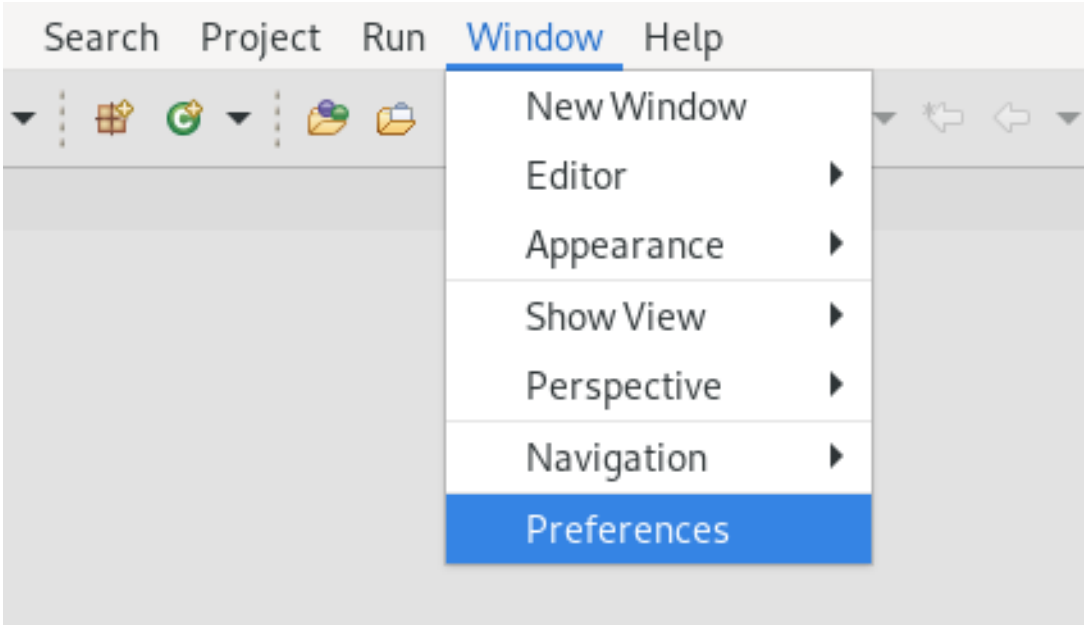
3.1. CONFIGURING A LOCAL SERVER

Runtime Detection searches a given local system path to locate certain types of runtime servers. For any servers found, Runtime Detection automatically generates both a default server runtime environment and a default server adapter. These items can be used for immediate application deployment as is or they can be customized to meet your requirements.

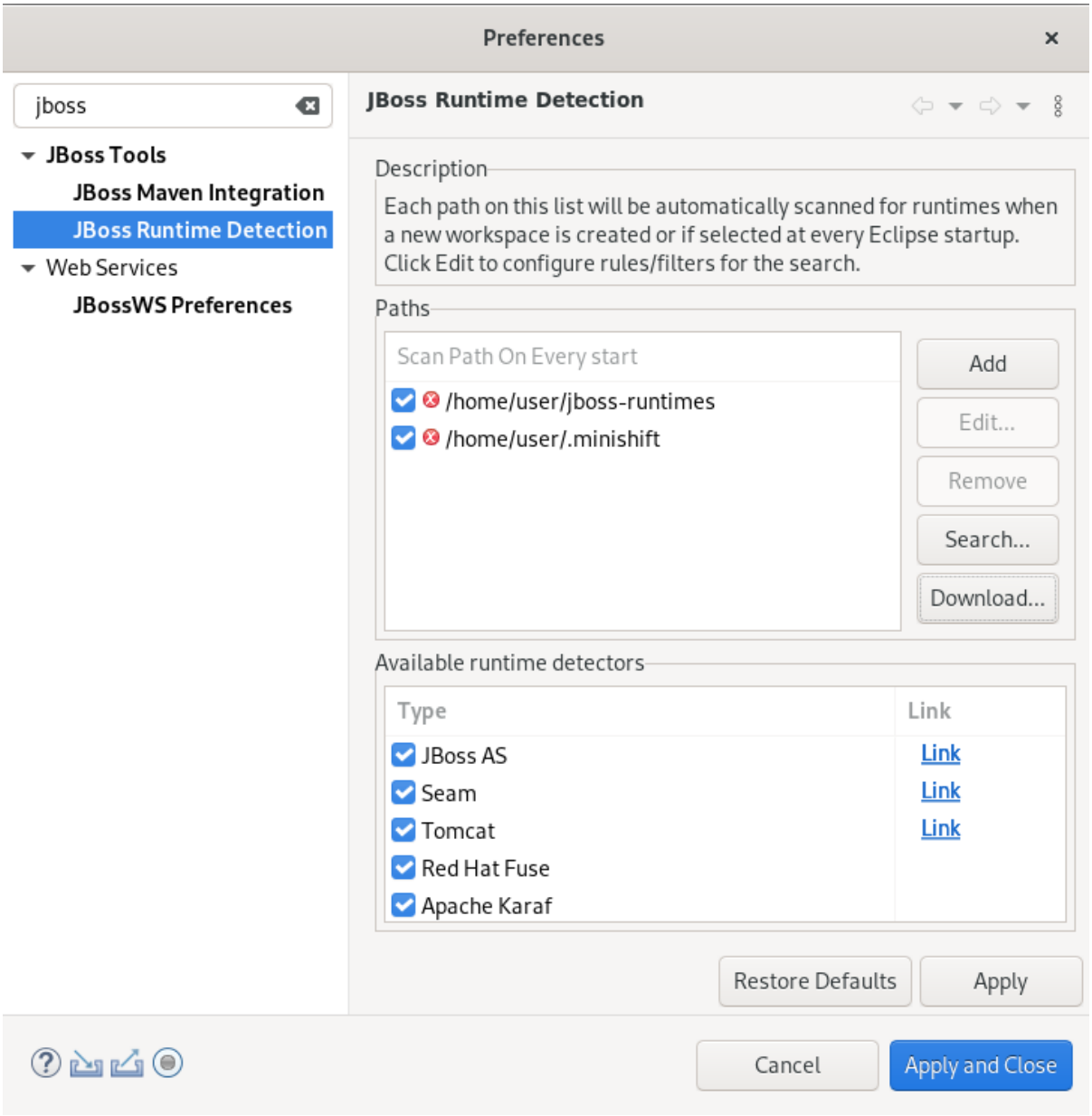
The following section describes how to configure a local server in CodeReady Studio.

Procedure

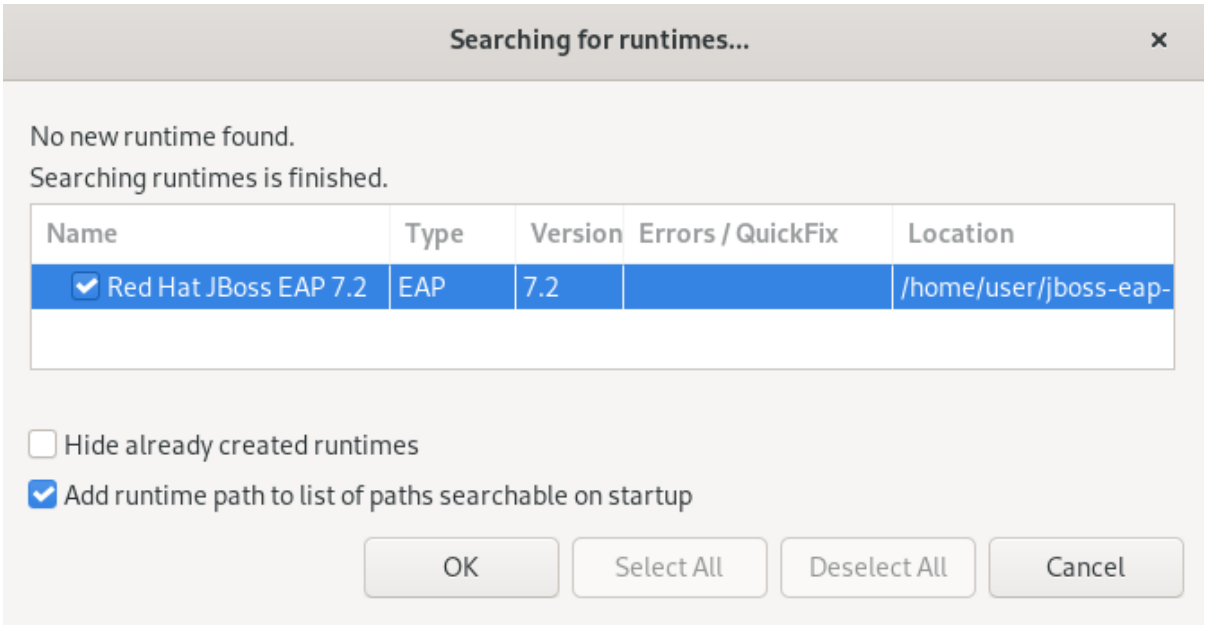
1. Start CodeReady Studio.
2. Click **Window → Preferences**.



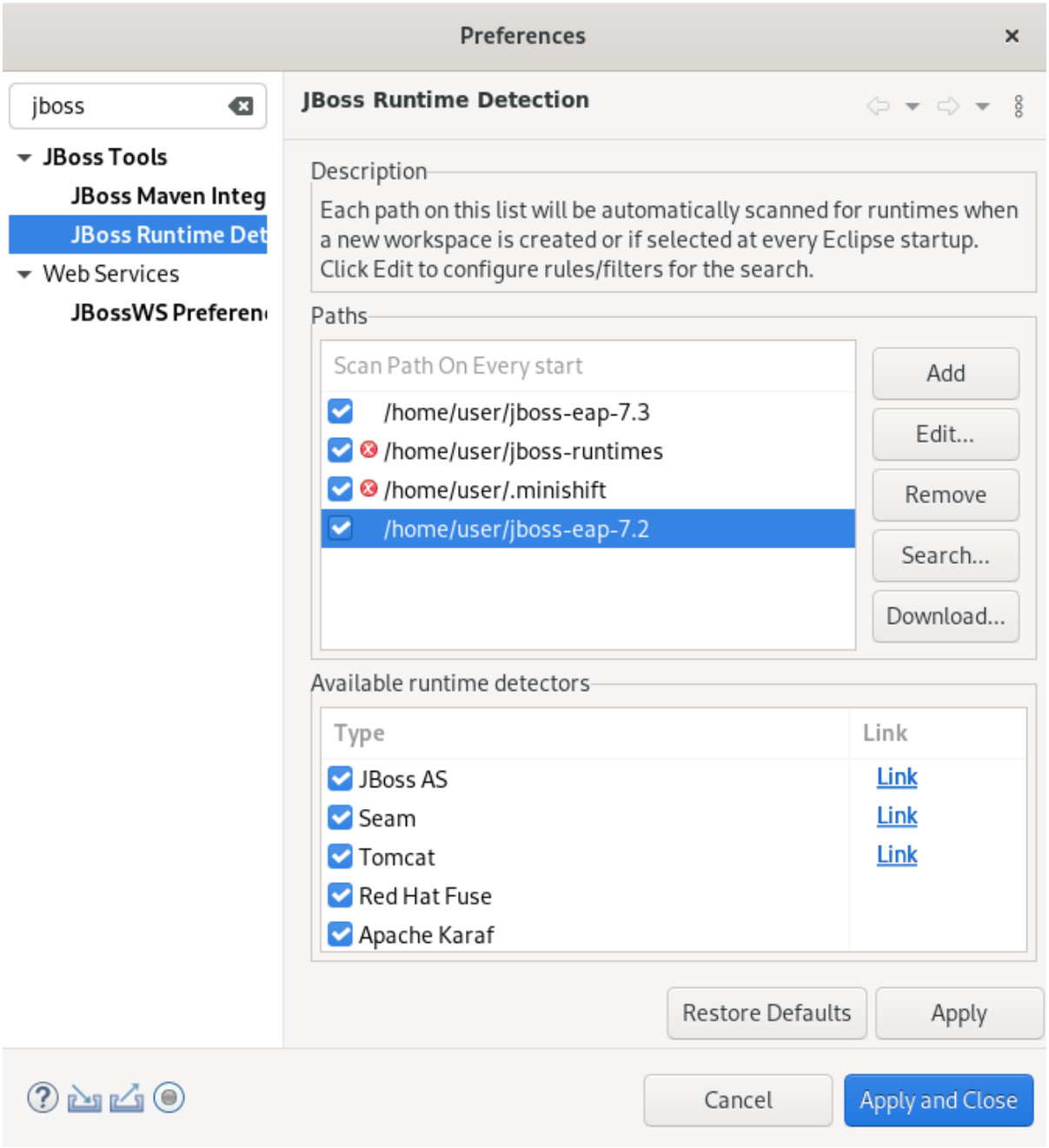
The **Preferences** window appears.



3. Enter **JBoss** in the search field.
4. Select **JBoss Runtime Detection**.
5. Click **Add**.
6. Locate the directory containing the runtime server.
7. Click **Open**.
   The **Searching for runtimes** window appears.



8. Click **OK**.
9. Select the path to the runtime server directory.



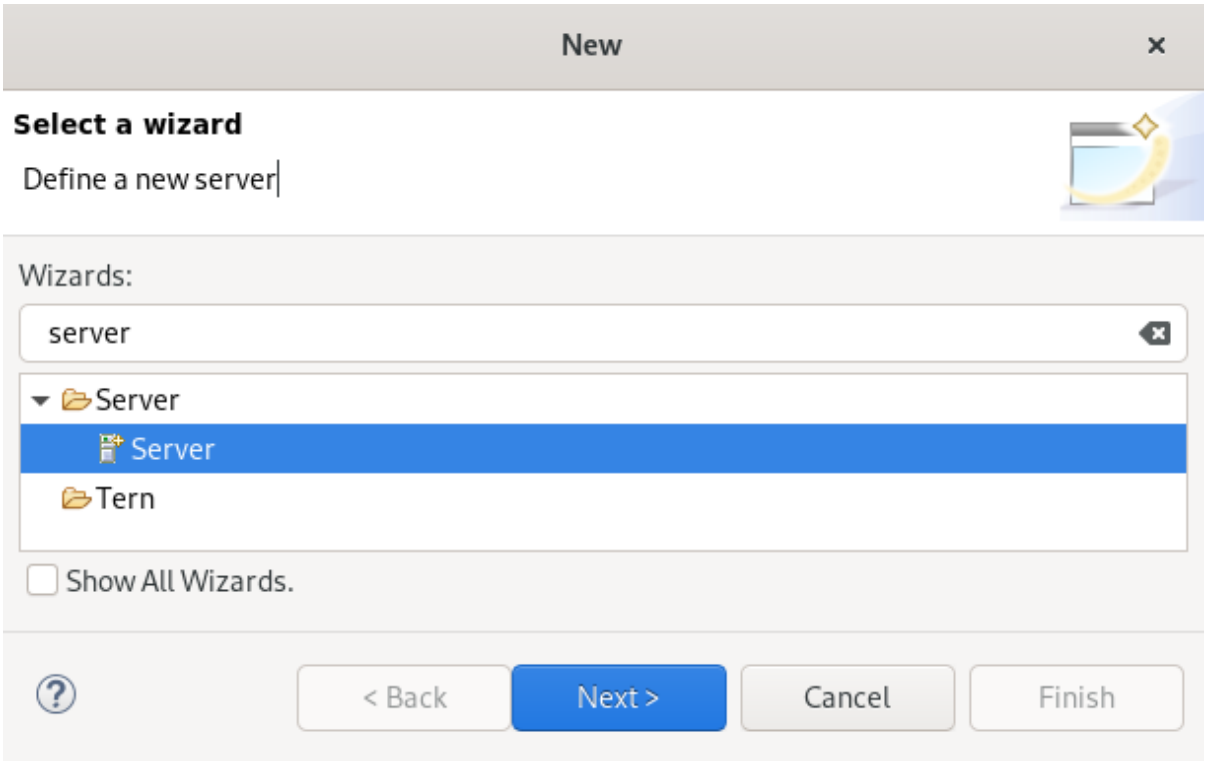
10. Click **Apply and Close**.

3.2. CONFIGURING A REMOTE SERVER

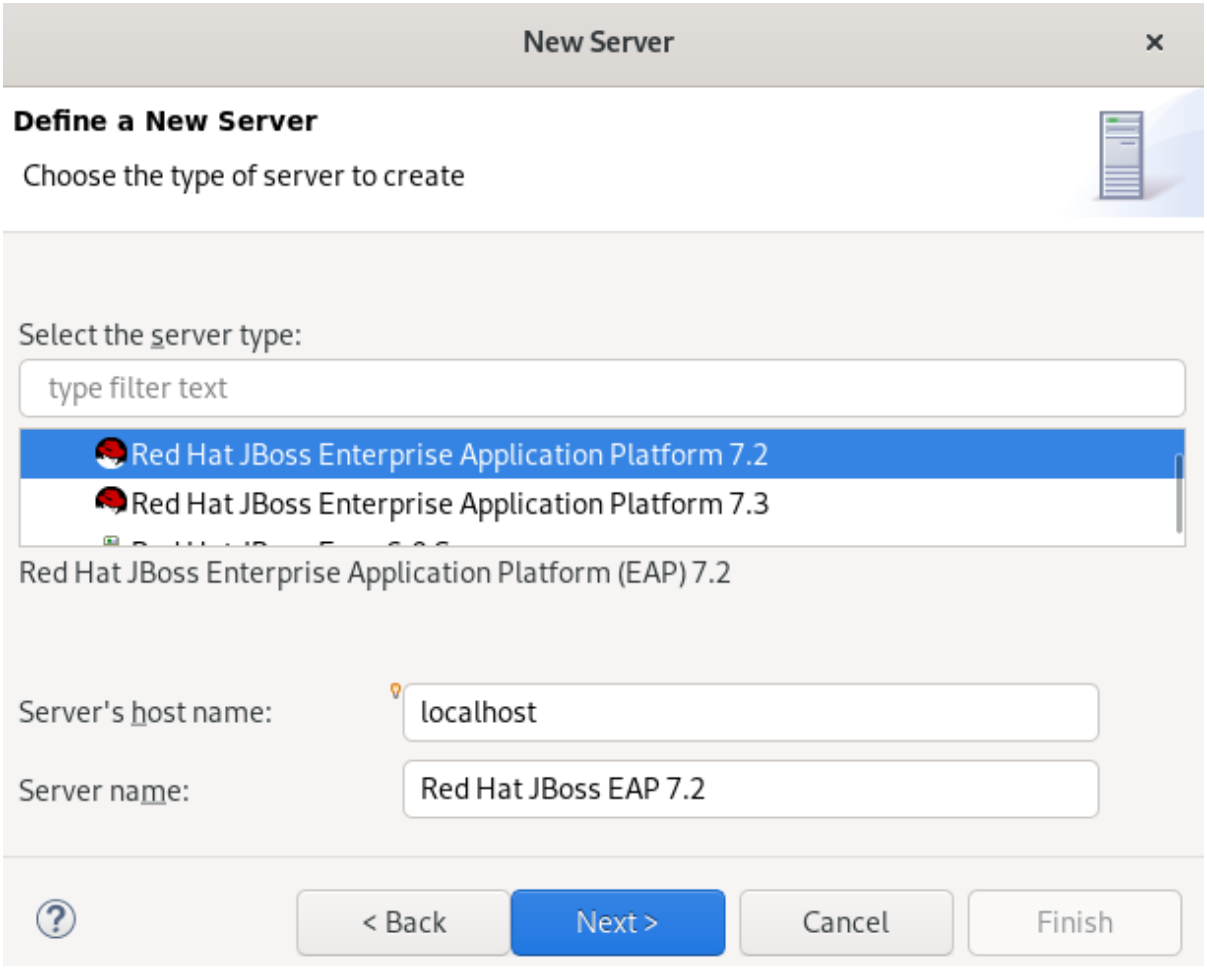
The following section describes how to configure a remote server in CodeReady Studio.

Procedure

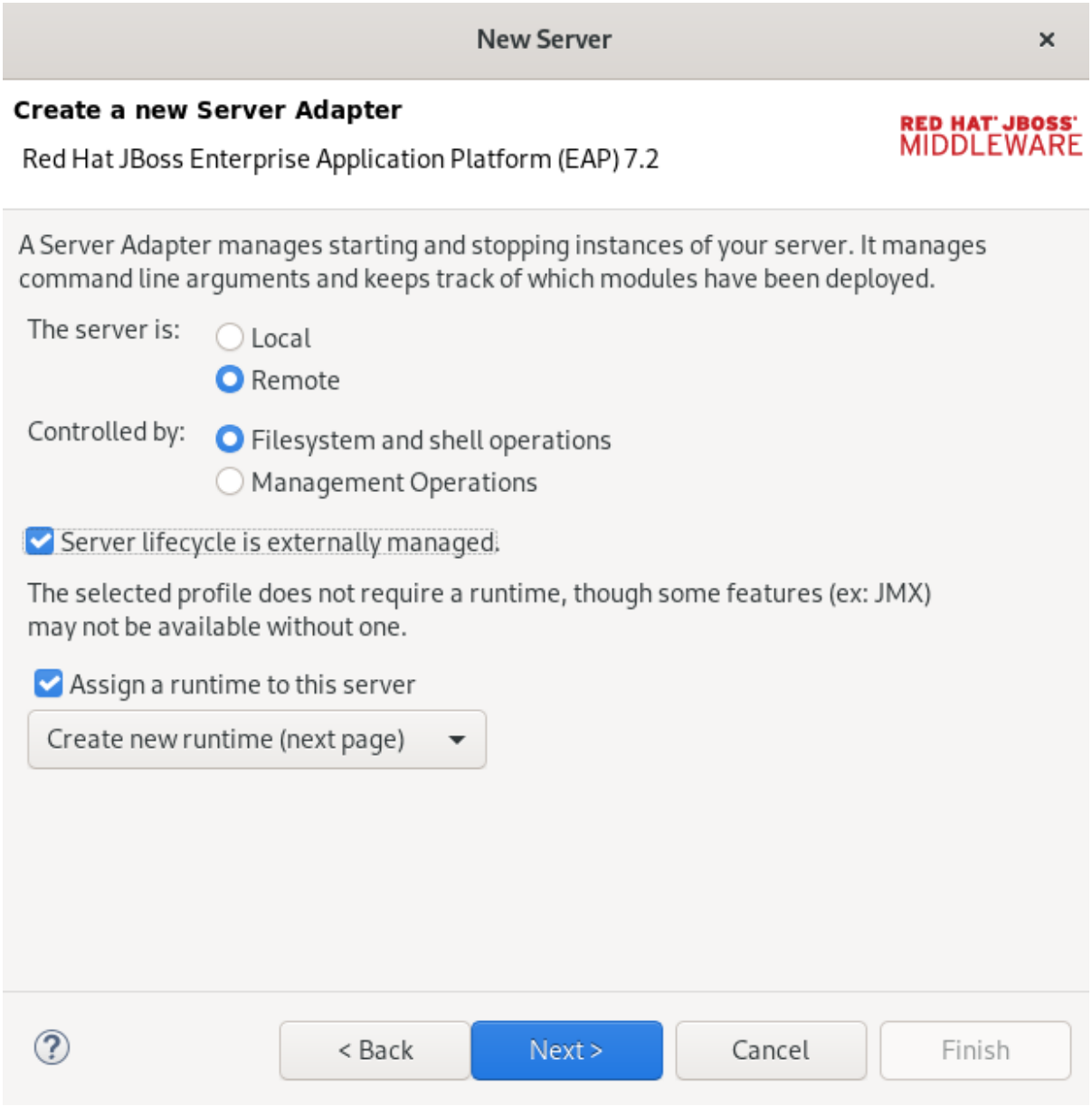
1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



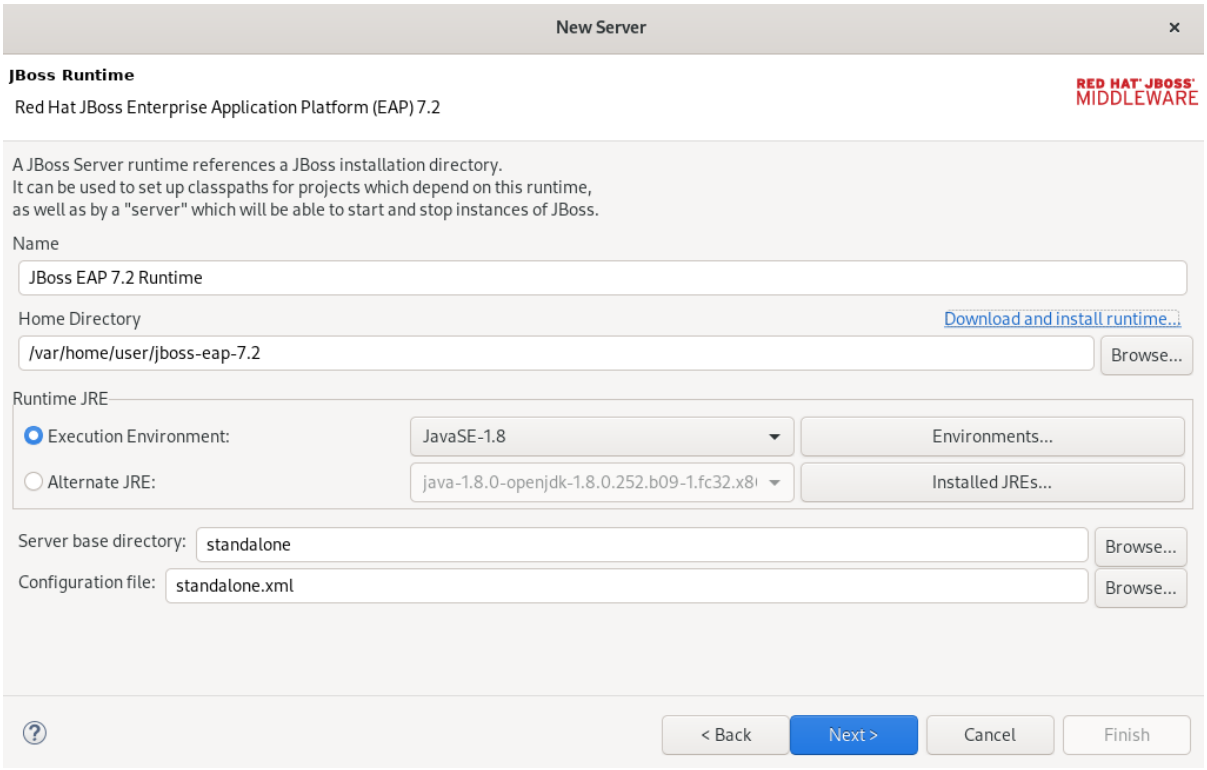
3. Enter **Server** in the search field.
4. Select **Server**.
5. Click **Next**.
   The **Define a New Server** window appears.



6. Select a server type.
7. Click **Next**.
   The **Create a new Server Adapter**window appears.

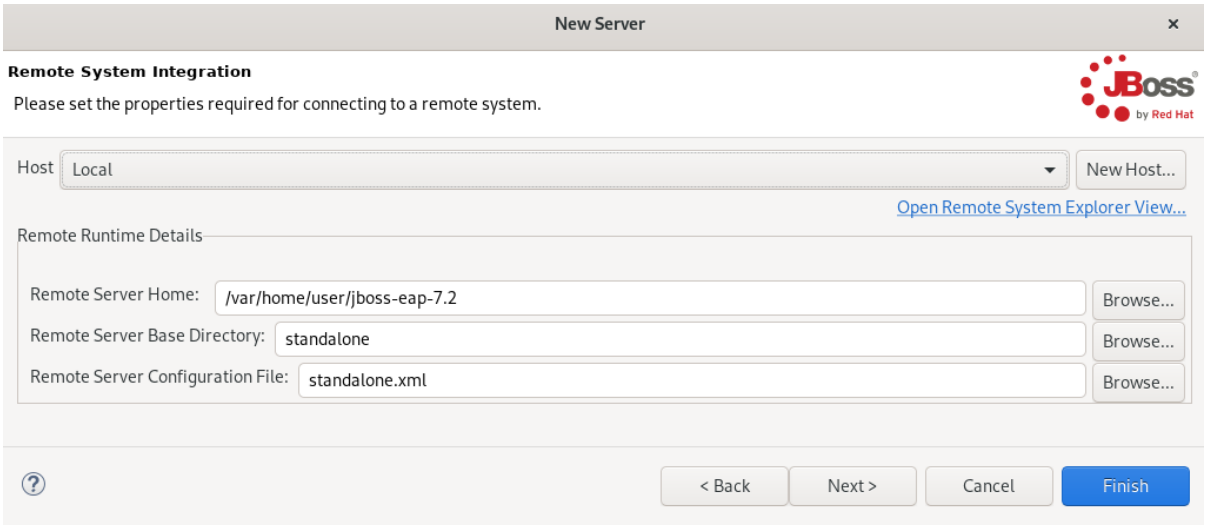


8. Select the **Remote** check box.
9. Select a **Controlled by** option.
10. Select the **Server lifecycle externally managed** check box.
11. Select the **Assign a runtime to the server**check box.
12. Click **Next**.
    The **JBoss Runtime** window appears.

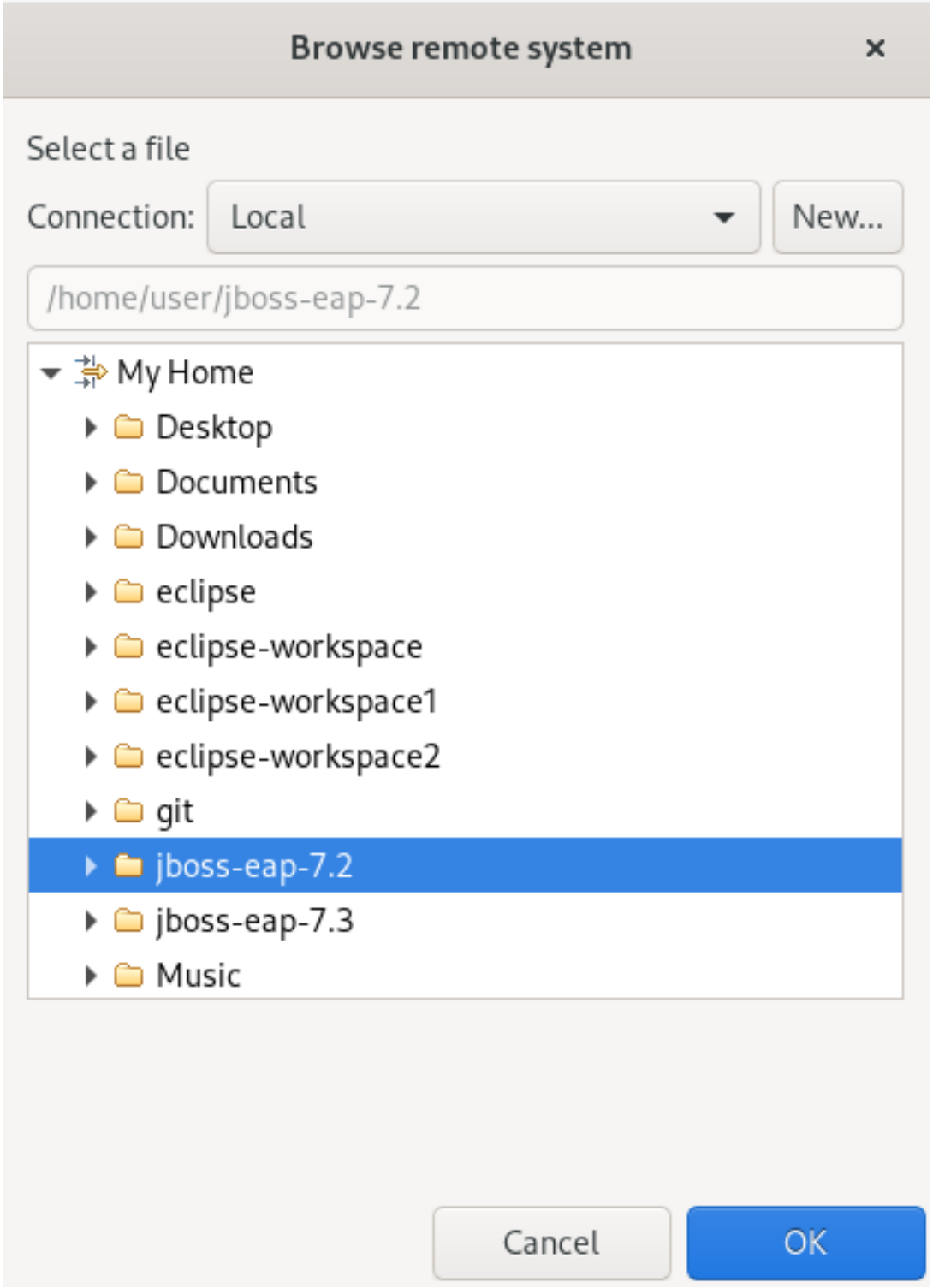


13. Click **Browse** in the **Home Directory** field to locate the runtime server.

14. Click **Next**.
The **Remote System Integration** window appears.



15. Click **Browse** in the **Remote Server Home** field.
The **Browse remote system** window appears.



16. Specify the path to the directory that contains the remote server.
17. Click **Finish**.

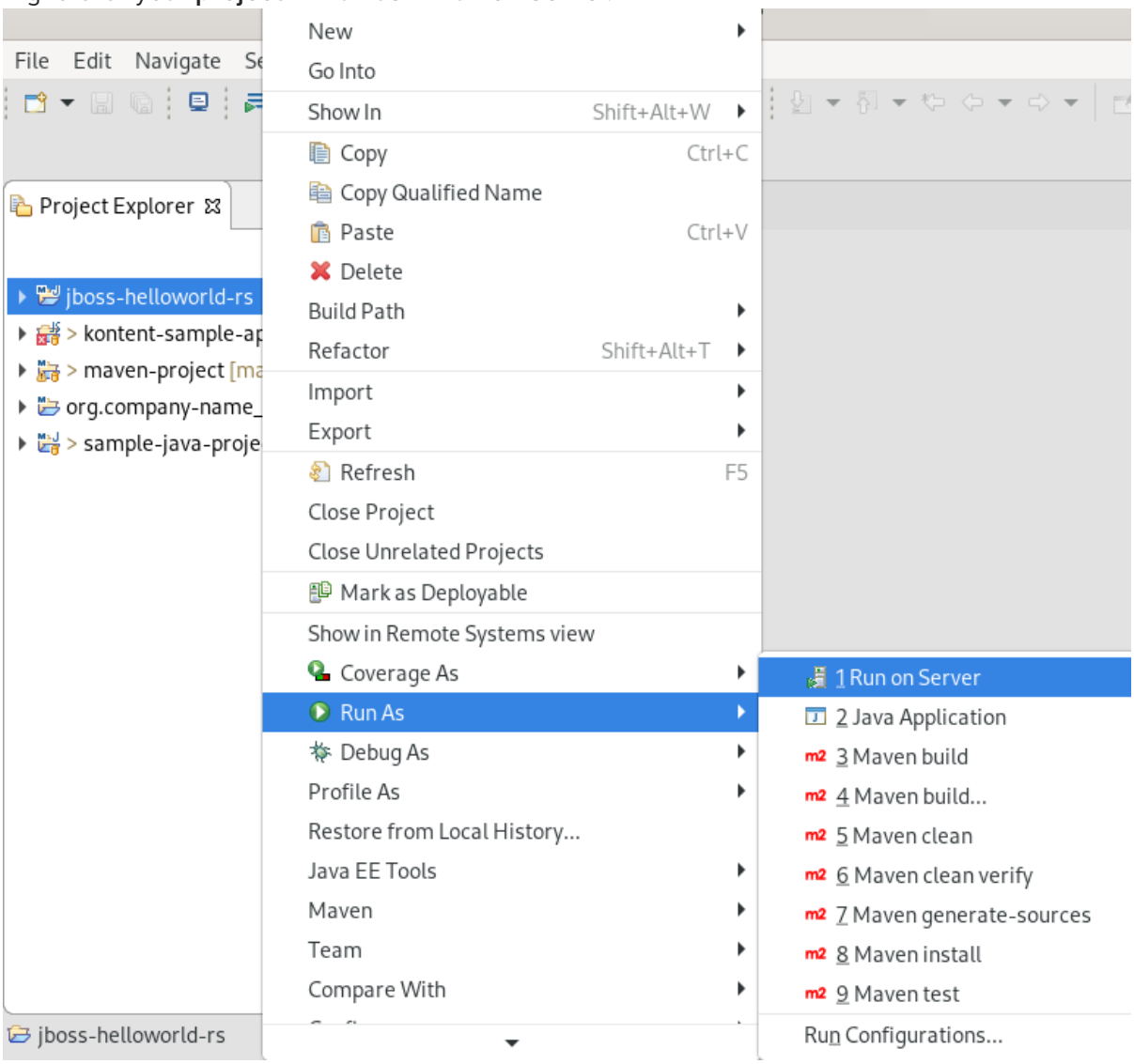
3.3. DEPLOYING AN APPLICATION

After configuring the local server, you can deploy applications to the server from CodeReady Studio using the server adapter. The server adapter enables runtime communication between the server and CodeReady Studio for easy deployment of applications and server management.

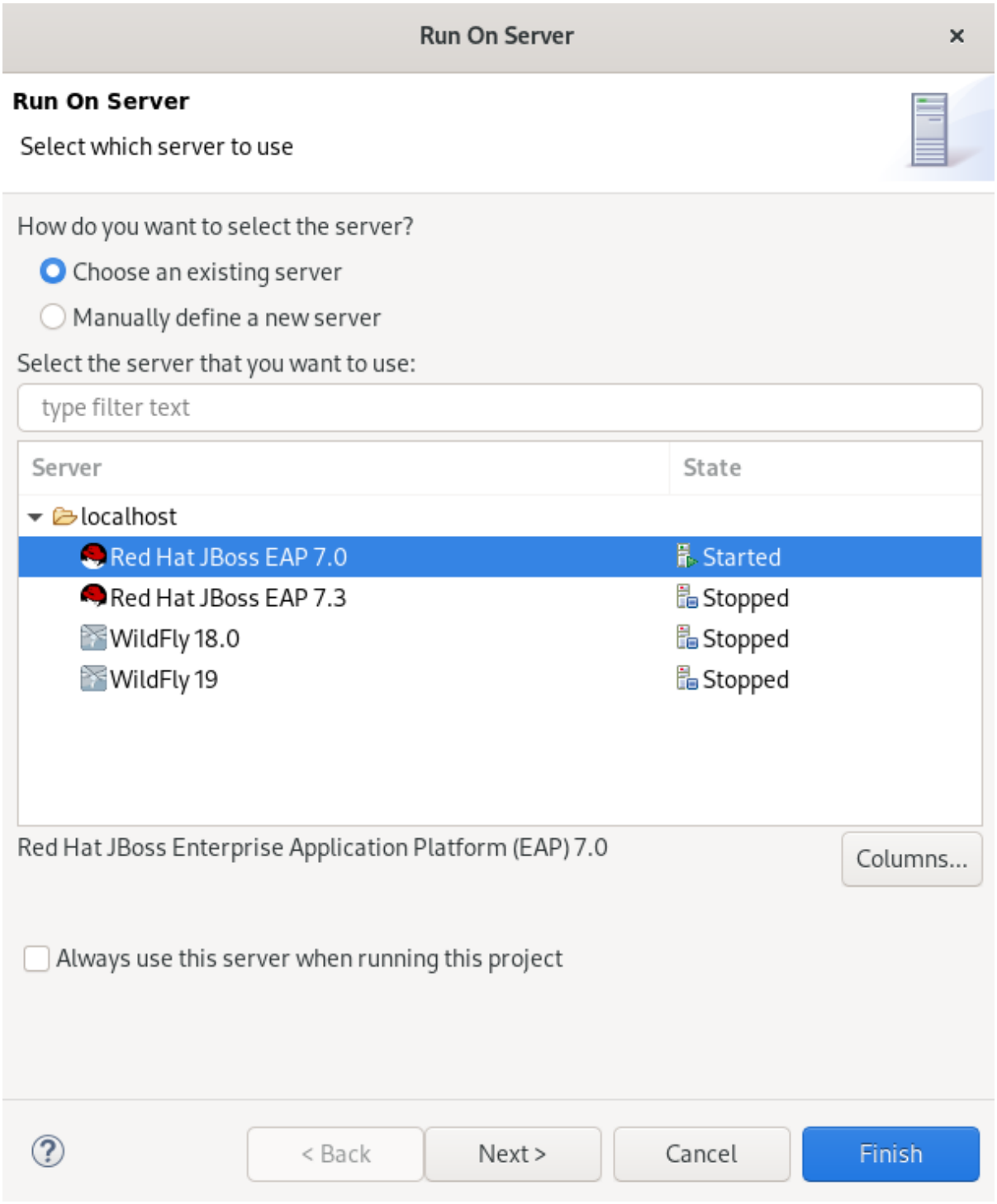
The following section describes how to deploy an application to the server in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Right-click your **project → Run as → Run on Server**.



The **Run on Server** window appears.



3. Select the **Choose an existing server** check box.
4. Select the server you want to deploy.
5. Click **Finish**.

Your application opens in the internal CodeReady Studio web browser.

CHAPTER 4. JBOSS EAP AND JBOSS WFK BASICS IN CODEREADY STUDIO

The Eclipse IDE supports application development and deployment with Red Hat JBoss Enterprise Application Platform (JBoss EAP) and Red Hat JBoss Web Framework Kit (JBoss WFK).

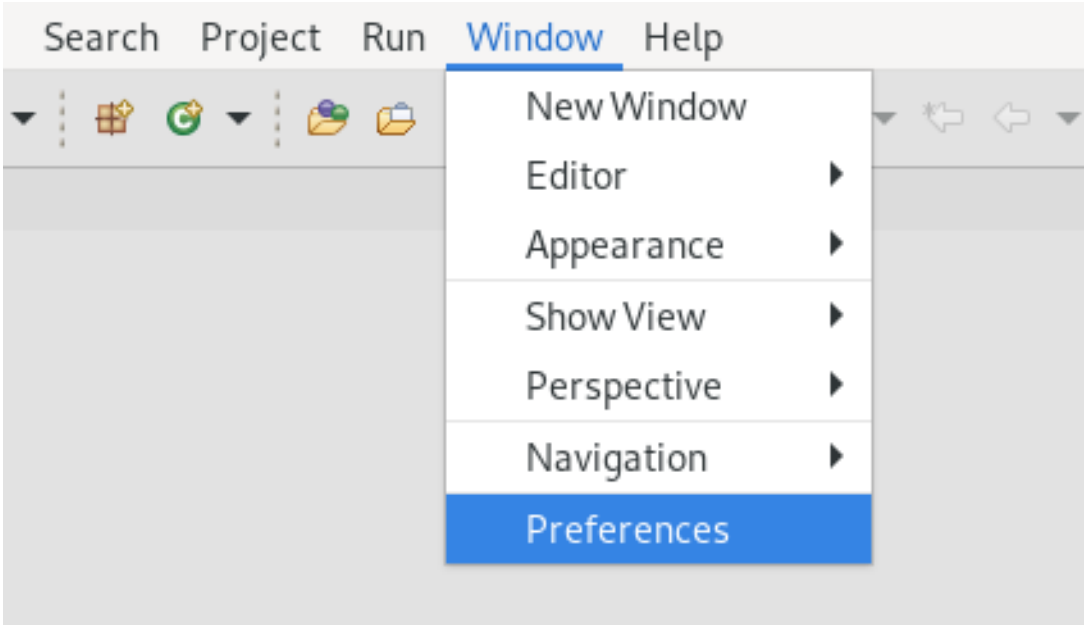
However, you need to configure Maven repositories first. This configuration is essential for using the enterprise versions of the example Maven projects provided in Red Hat Central. These projects are intended for deployment to JBoss EAP and require IDE access to JBoss EAP and JBoss WFK repositories.

4.1. CONFIGURING MAVEN REPOSITORIES

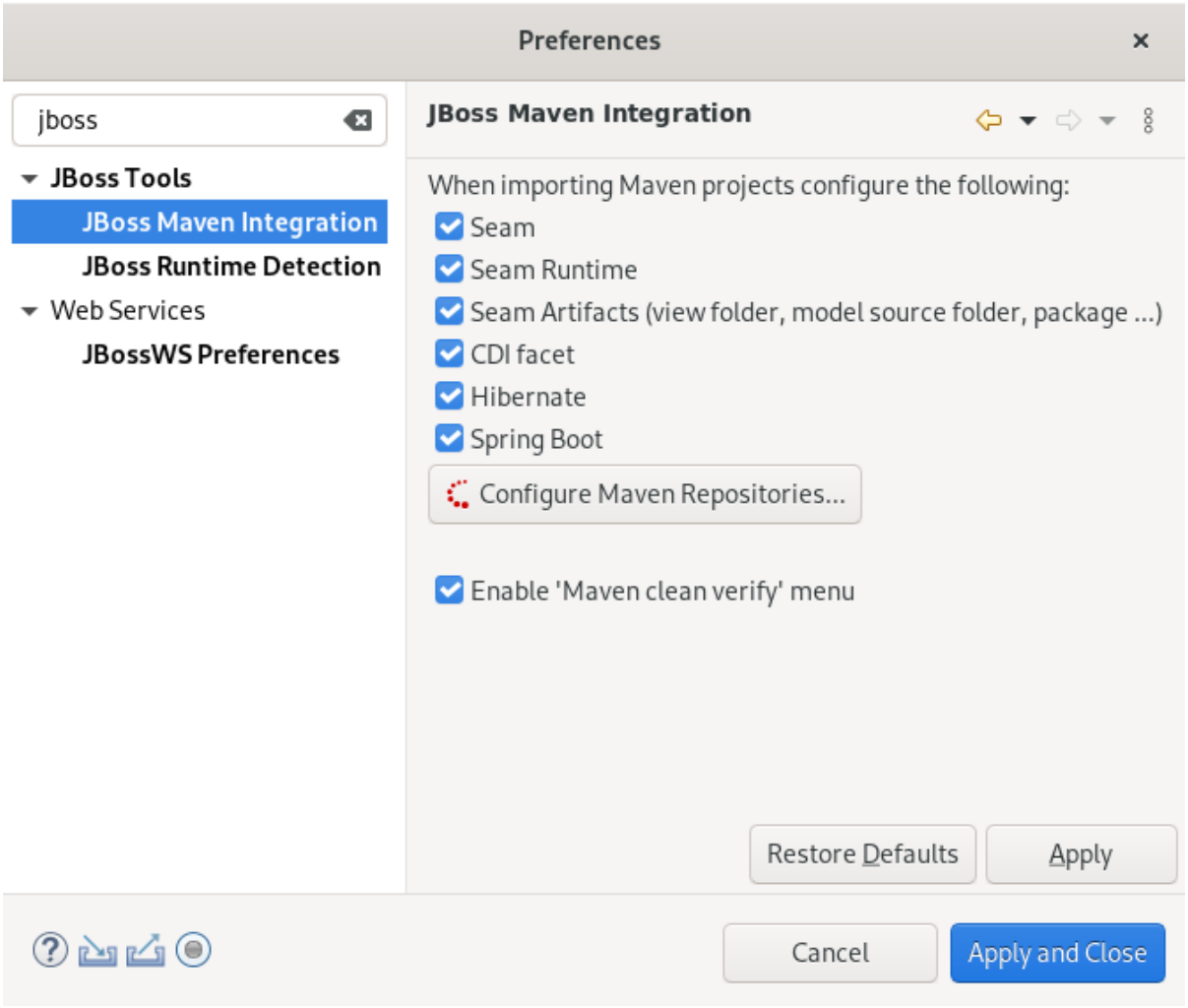
The following section describes how to configure Maven repositories.

Procedure

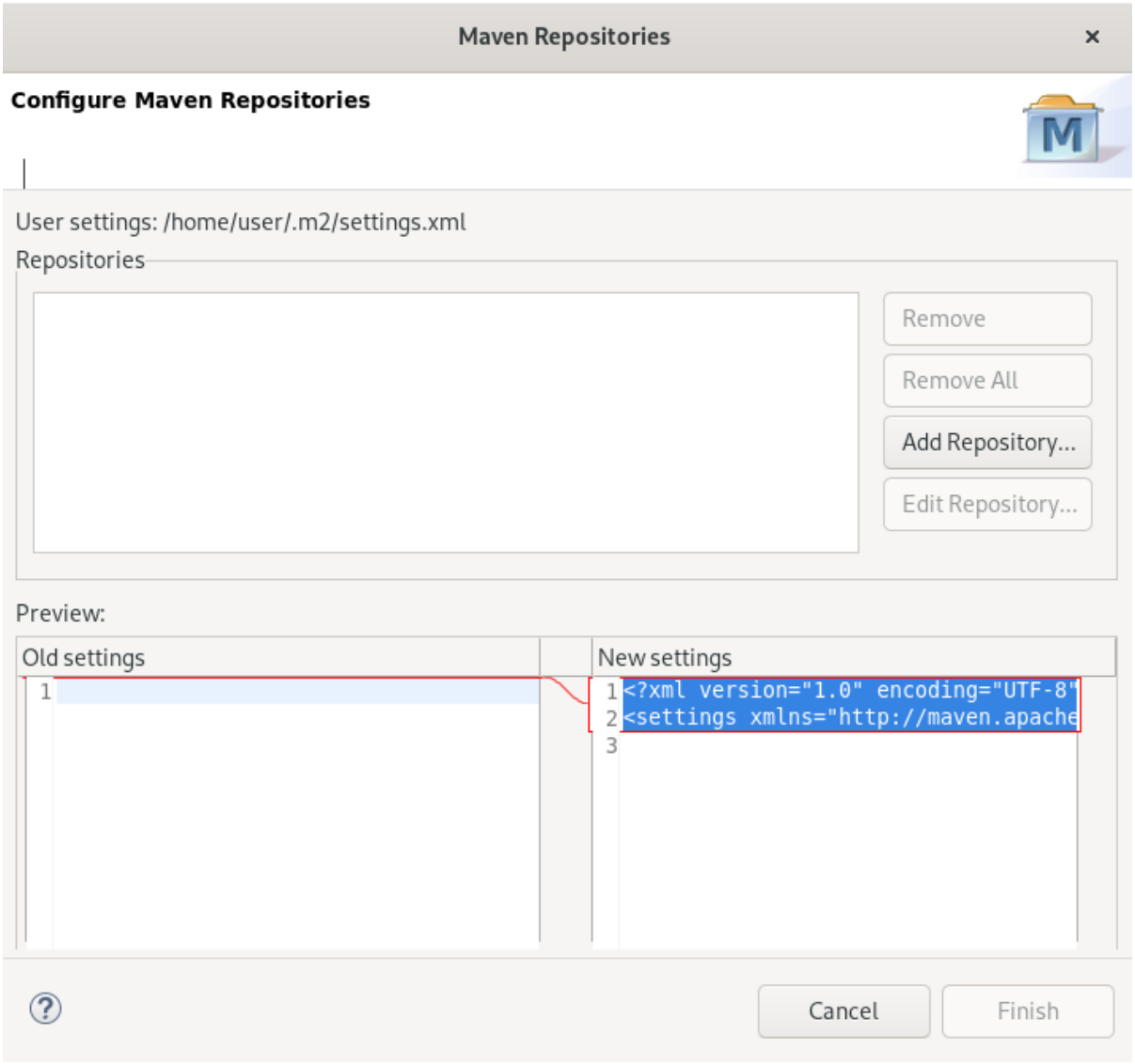
1. Start CodeReady Studio.
2. Click **Window → Preferences**.



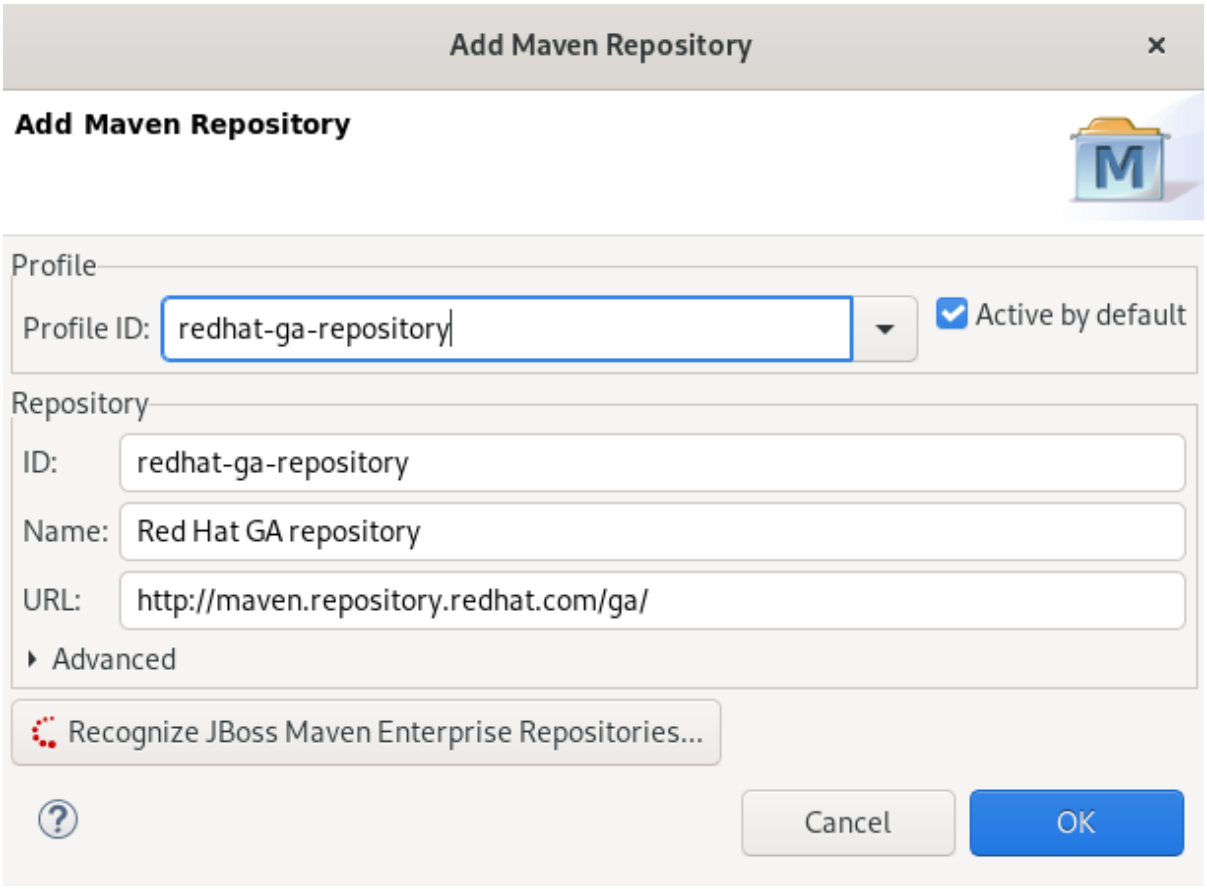
The **Preferences** window appears.



3. Enter **JBoss** in the search field.
4. Select **JBoss Maven Integration**.
5. Click **Configure Maven Repositories**.
   The **Configure Maven Repositories** window appears.



6. Click **Add Repository**.
   The **Add Maven Repository** window appears.



7. Click the down-arrow in the **Profile ID** field.
8. Select the **redhat-ga-repository**.
   Other fields are populated automatically.
9. Click **OK**.
10. Click **Finish**.
    The **Confirm File Update** window appears.
11. Click **Yes**.
12. Click **Apply and Close**.

Additional resources

- For more information on Maven repositories, see Maven: Getting Started - Developers.

4.2. SETTING UP JBOSS EAP

To set up JBoss EAP in Eclipse, you must direct the IDE to the local or remote runtime servers. This establishes a communication channel between the IDE and the JBoss EAP server for efficient deployment and server management workflows.

The following section describes how to install JBoss EAP in CodeReady Studio.

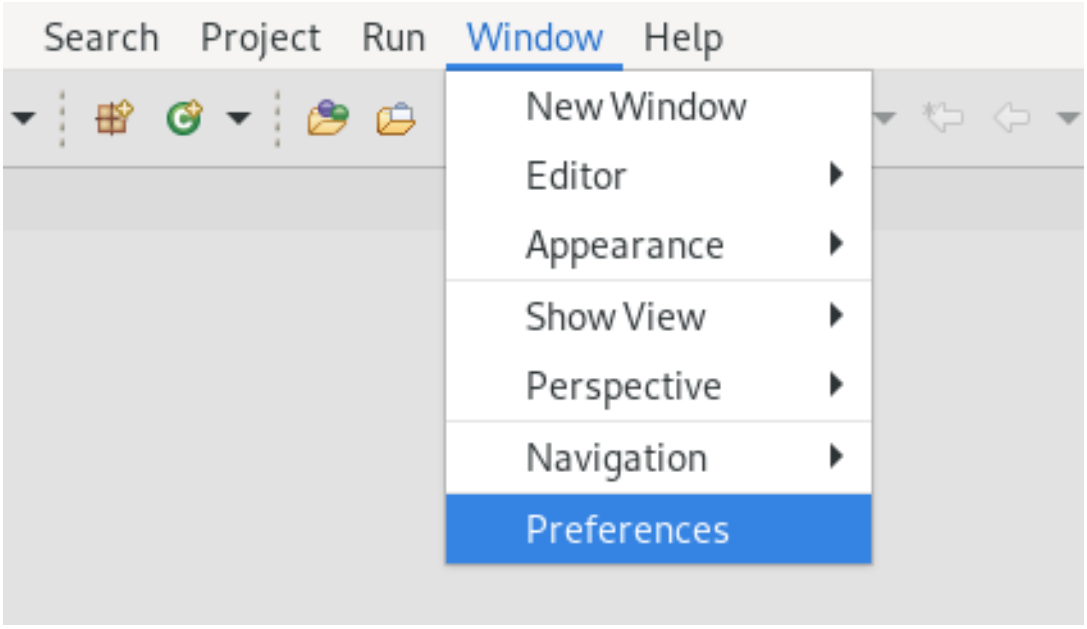
Prerequisites

- Configured Maven repositories.

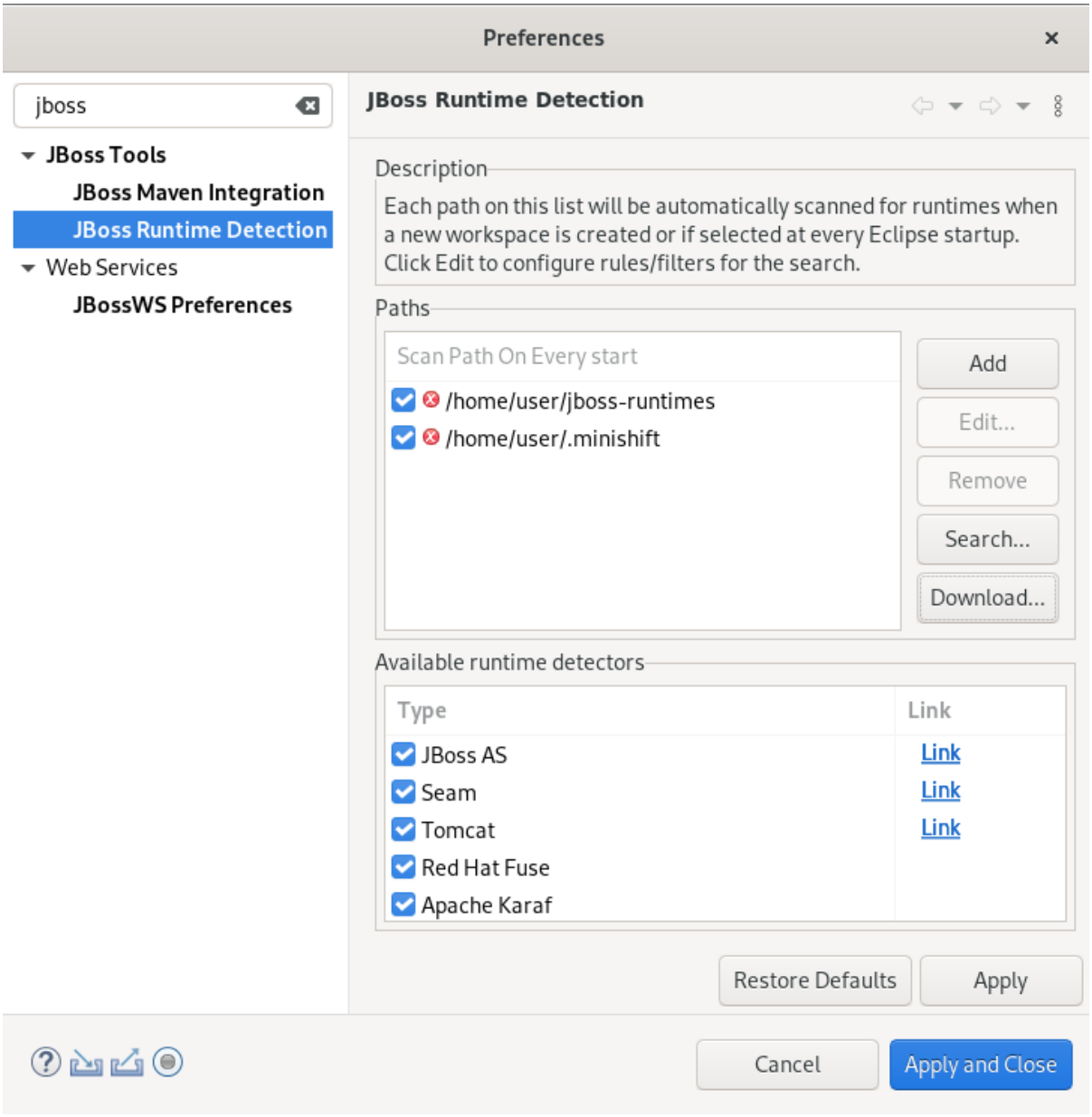
For more information on how to configure Maven repositories, see Section 4.1, “Configuring Maven repositories”.

Procedure

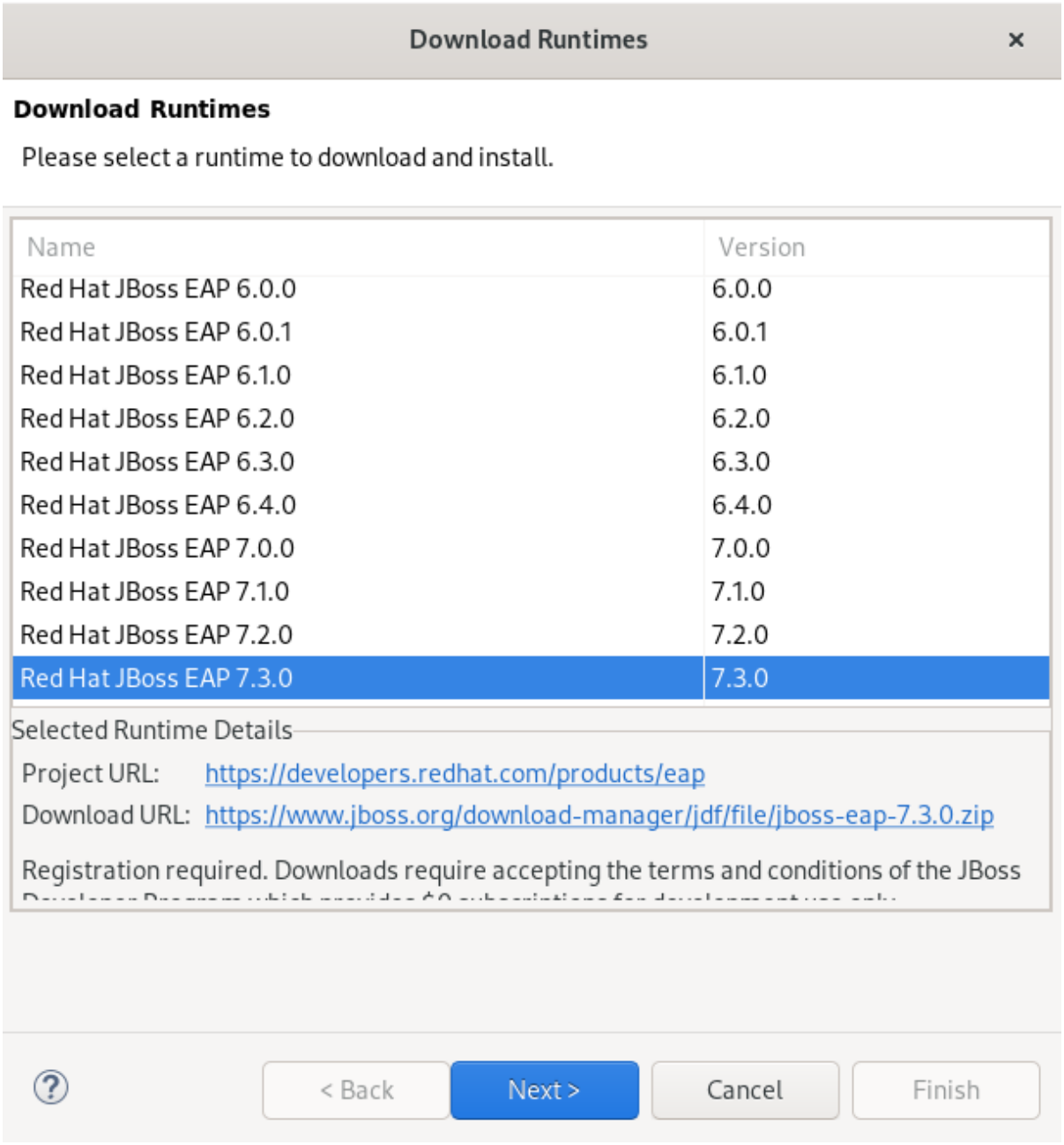
1. Start CodeReady Studio.
2. Click **Window → Preferences**.



The **Preferences** window appears.



3. Enter **JBoss** in the search field.
4. Select **JBoss Runtime Detection**.
5. Click **Download**.
   The **Download Runtimes** window appears.

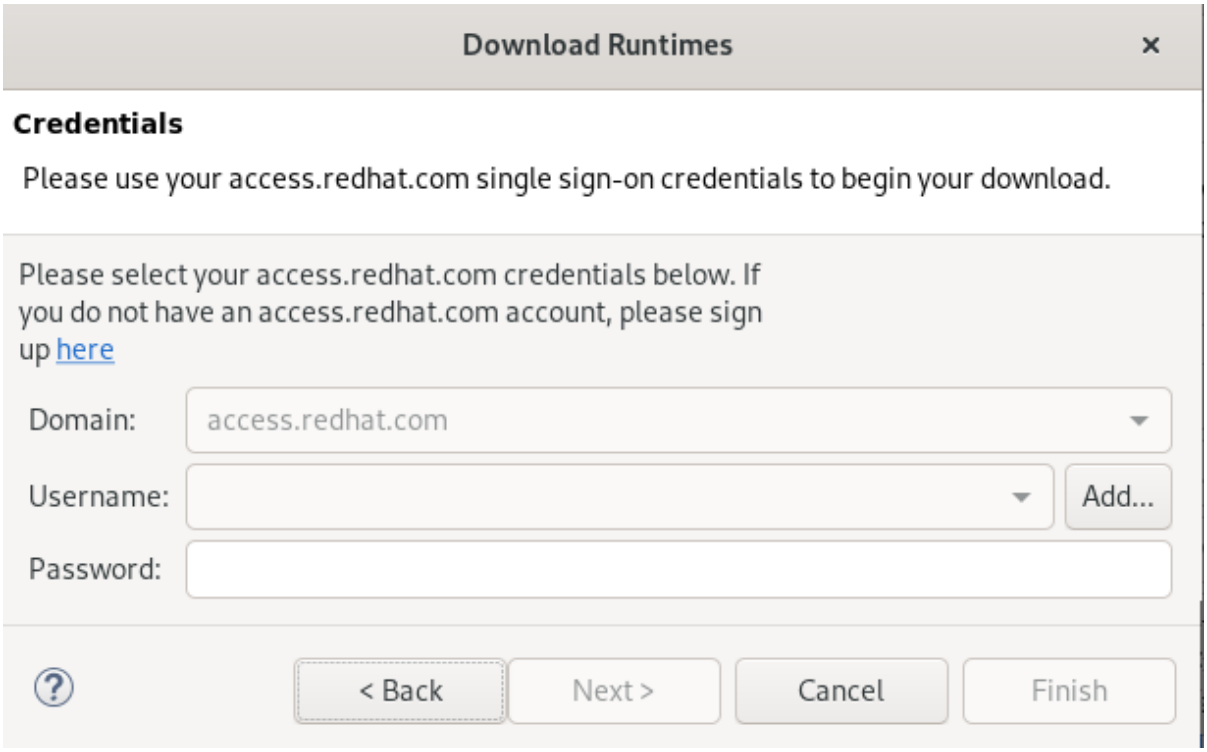


6. Select the JBoss EAP version you need.

NOTE

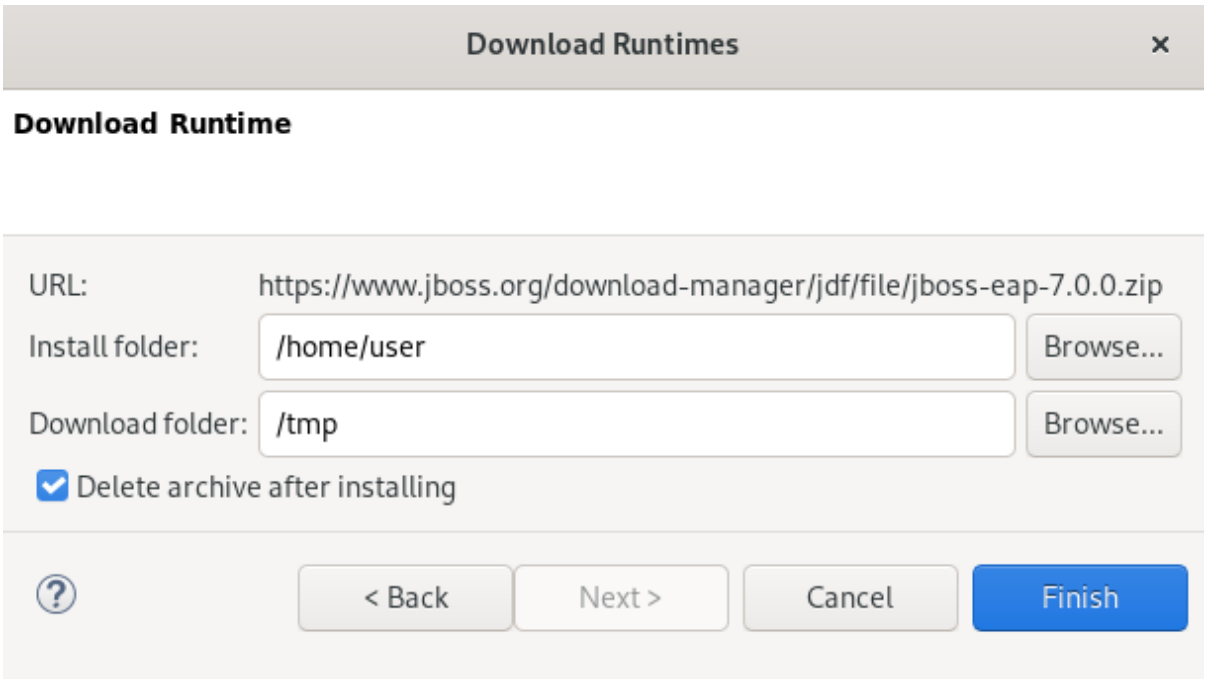
If you select the JBoss EAP version 6.0.x or earlier, follow the on-screen instructions. If you select a later version, follow the instructions below.

7. Click **Next**.
   The **Credentials** window appears.



8. Click **Add**.
9. Enter your **access.redhat.com** username and password.
10. Click **OK**.
11. Click **Next**.
    Review the license agreement, if satisfied, accept the license and click **Next** to continue with the installation.

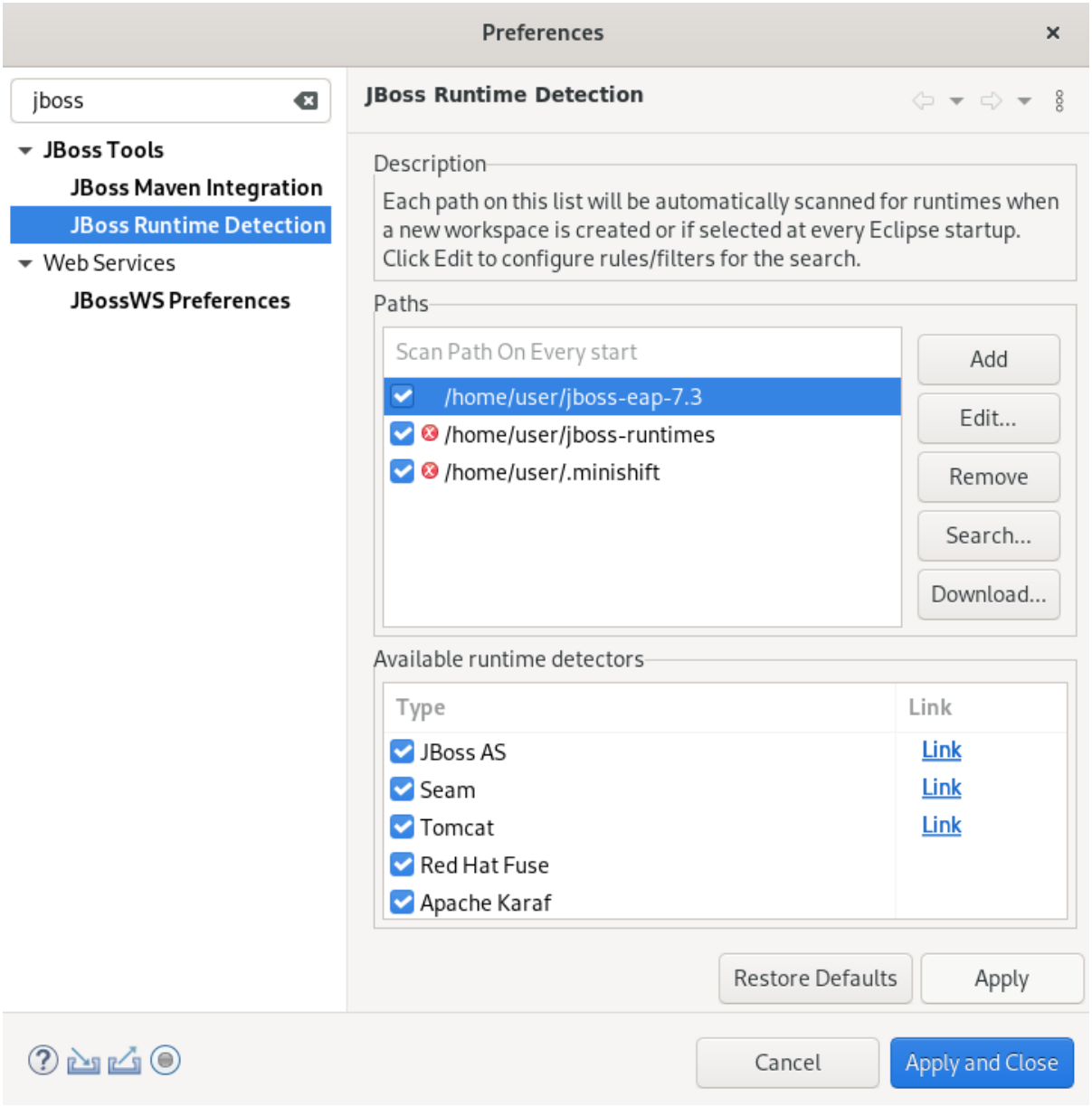
    The **Download Runtimes** window appears.



12. Click **Browse** to select the **Install folder**.
13. Click **Browse** to select the **Download folder**.

14. Click **Finish**.
    Note that downloading and installing the Runtime might take a while.

    The **JBoss Runtime Detection** window appears.

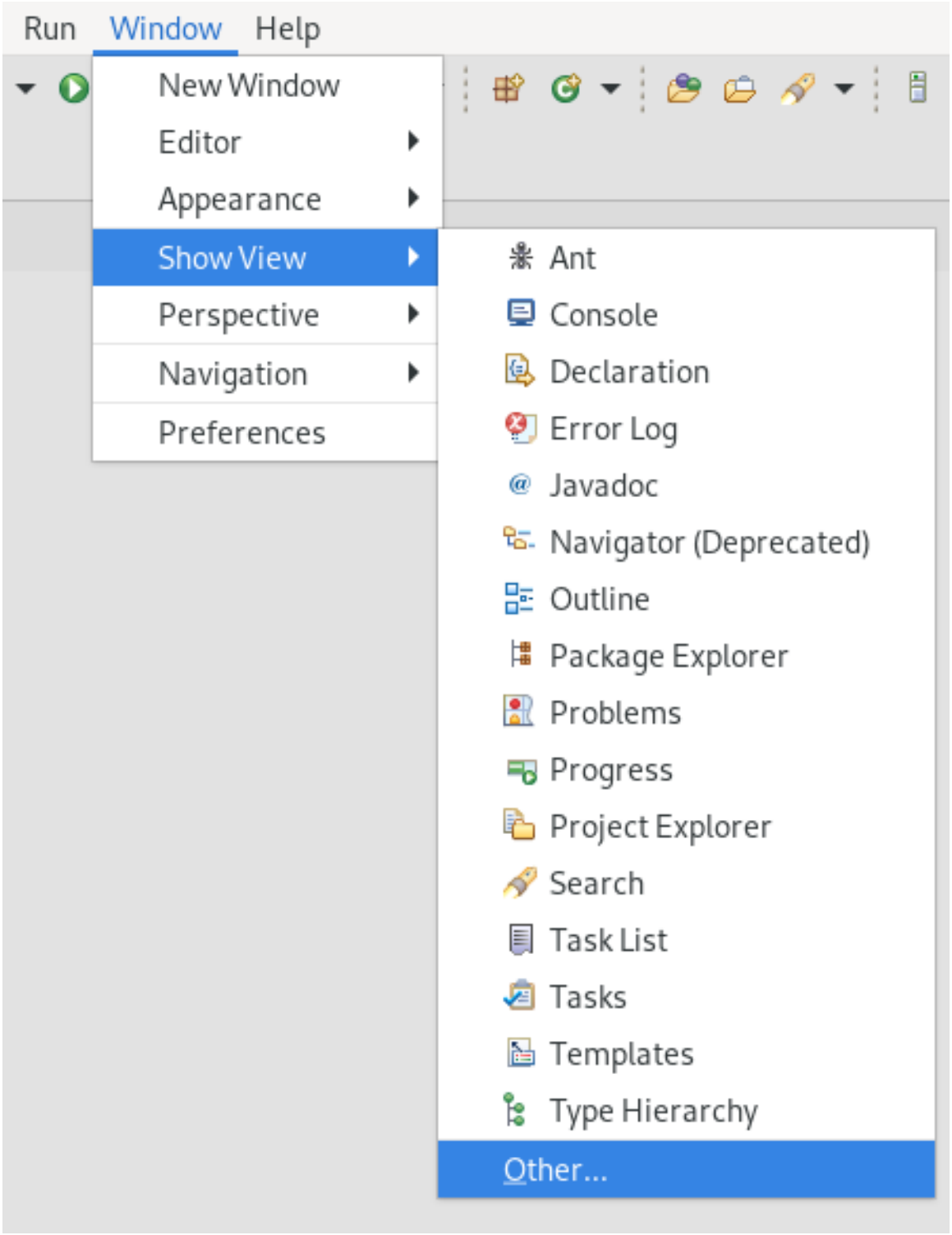


15. Select the path to the JBoss EAP installation file check box.

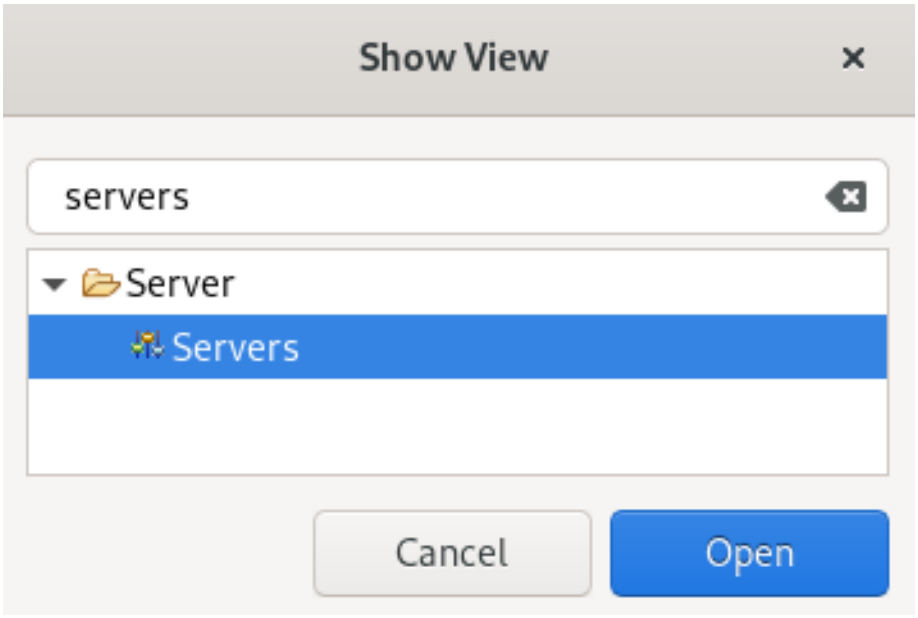
16. Click **Apply and Close**.

Verification steps

1. Click **Window → Show View → Other**.

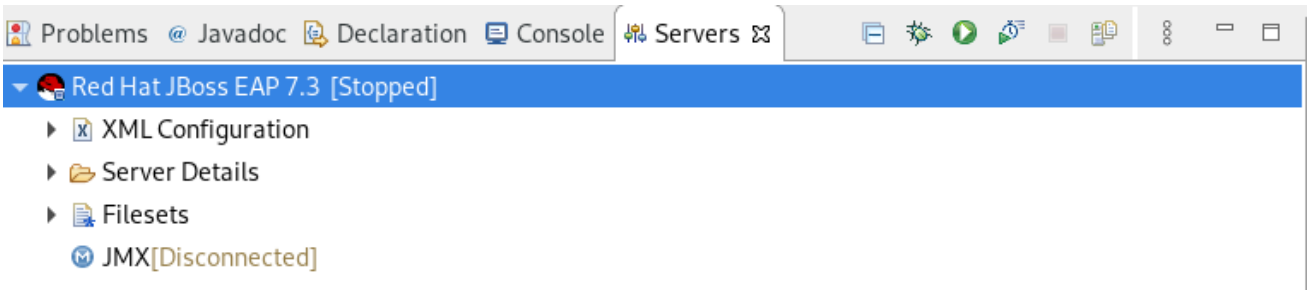


The **Show View** window appears.



2. Type **Servers** in the search field.
3. Select **Servers**.
4. Click **Open**.
   The **Servers** view appears.

Your newly added JBoss EAP is now listed in the **Servers** view.



CHAPTER 5. OPENSHIFT BASICS IN CODEREADY STUDIO

CodeReady Studio includes the OpenShift Application Explorer view, which provides a simplified user experience allowing easy and rapid feedback through the inner loop as well as debugging.

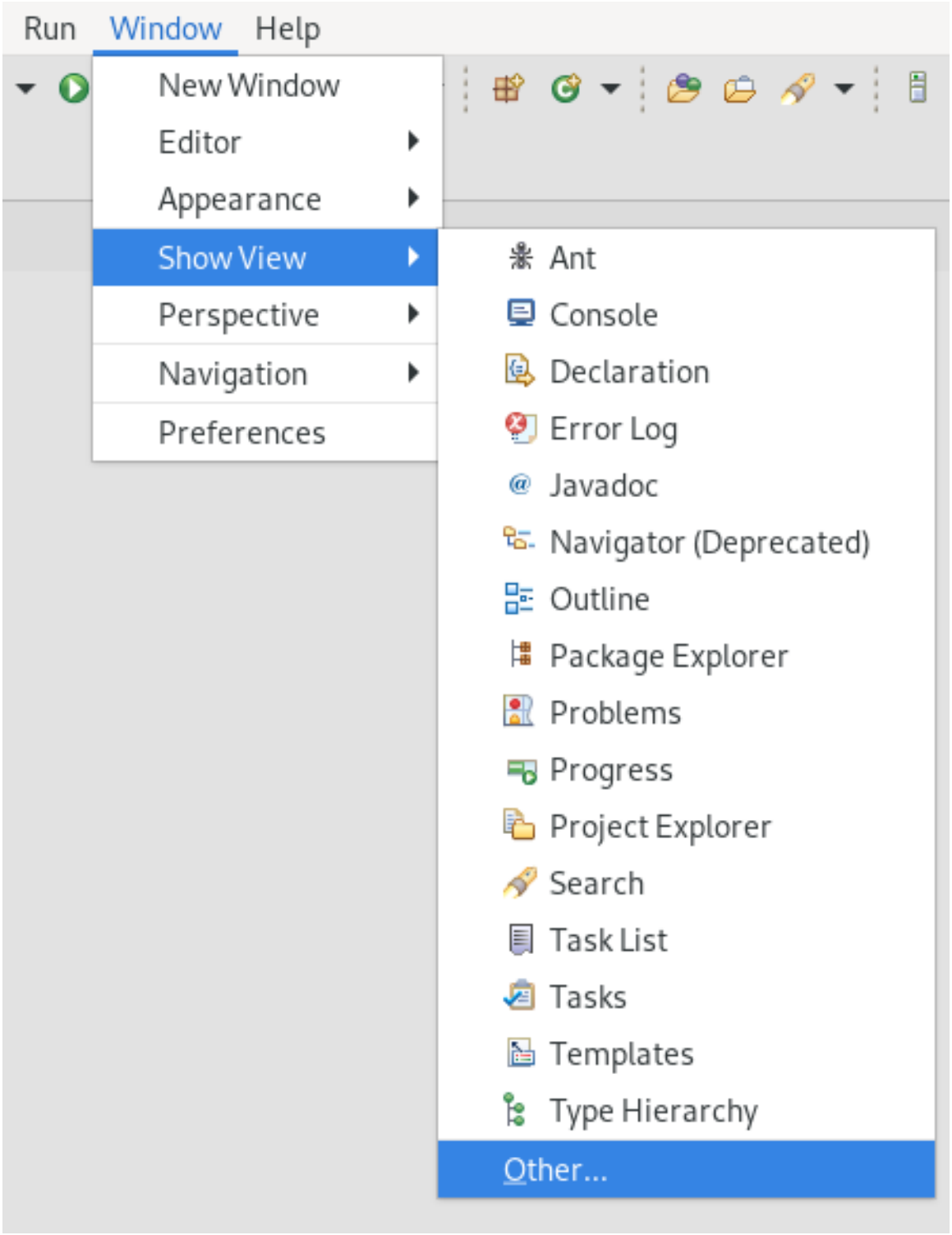
The OpenShift Application Explorer is set in CodeReady Studio as the default view. In case you need to open it manually, follow the instructions in Setting Up Openshift App Explorer View.

5.1. SETTING UP THE OPENSHIFT APPLICATION EXPLORER VIEW

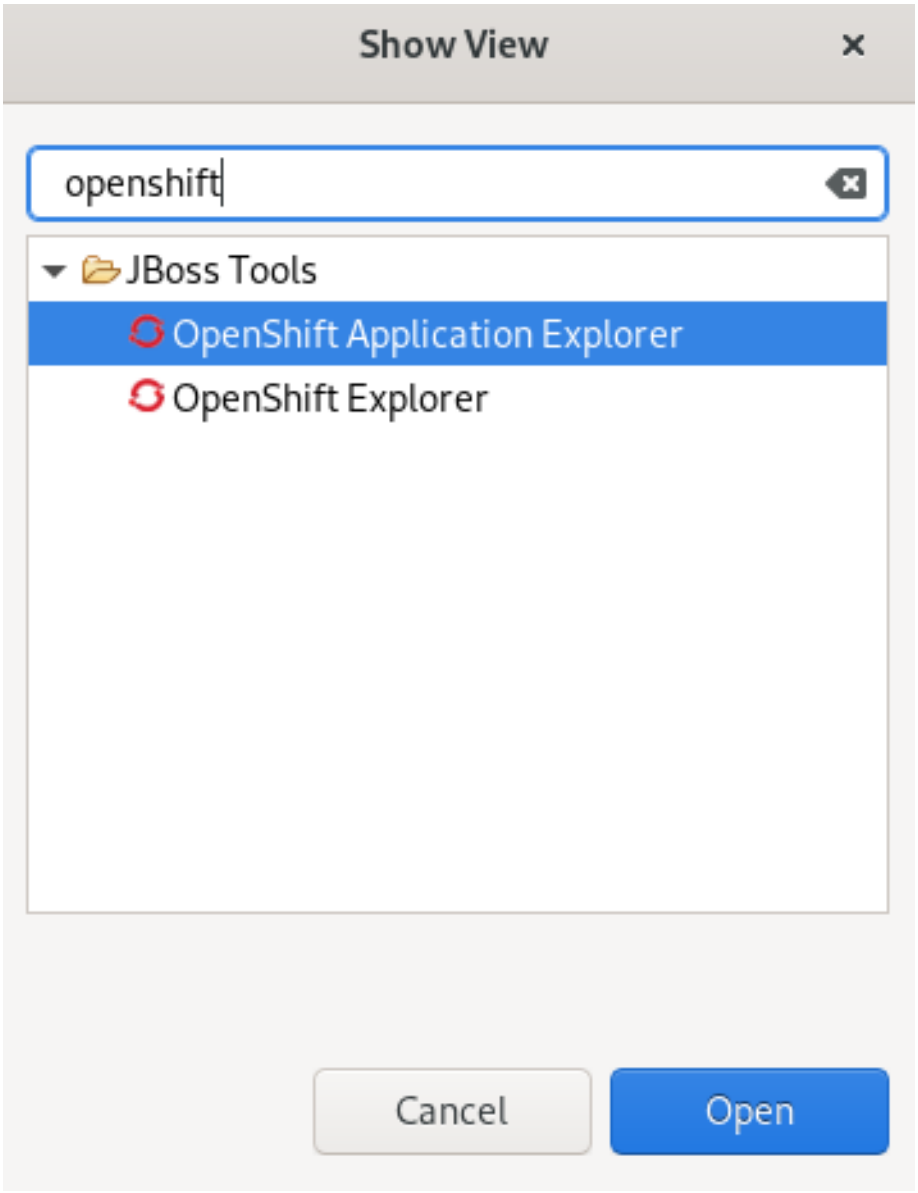
The following section describes how to open OpenShift Application Explorer in CodeReady Studio.

Procedure

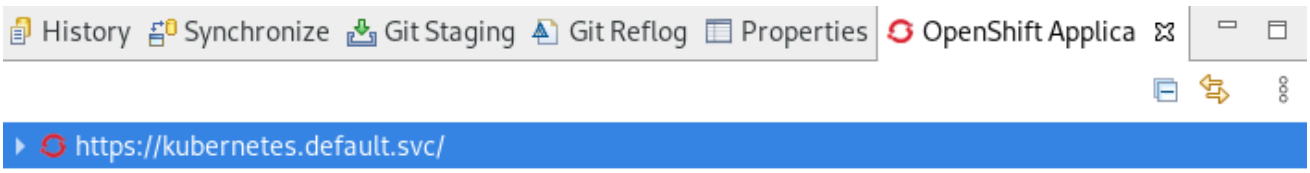
1. Start CodeReady Studio.
2. Click **Window → Show View → Other**.



The **Show View** window appears.



3. Enter **OpenShift** in the search field.
4. Select **OpenShift Application Explorer**.
5. Click **Open**.
   The **OpenShift Application Explorer** view appears.

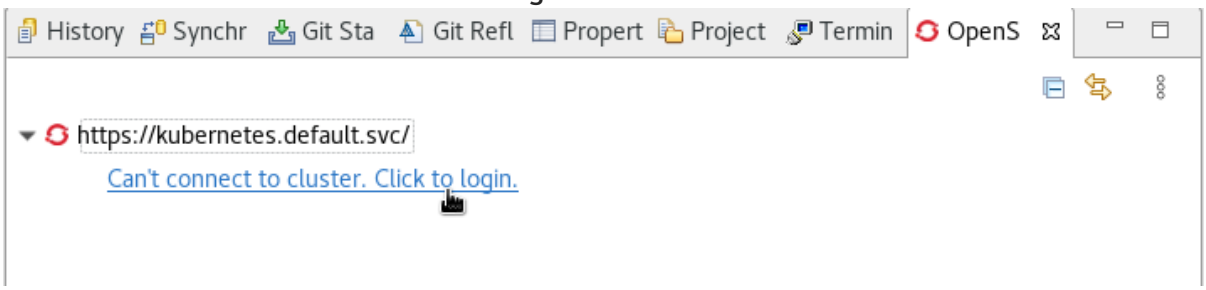


5.2. CONNECTING TO THE OPENSHIFT CLUSTER USING OPENSHIFT APPLICATION EXPLORER

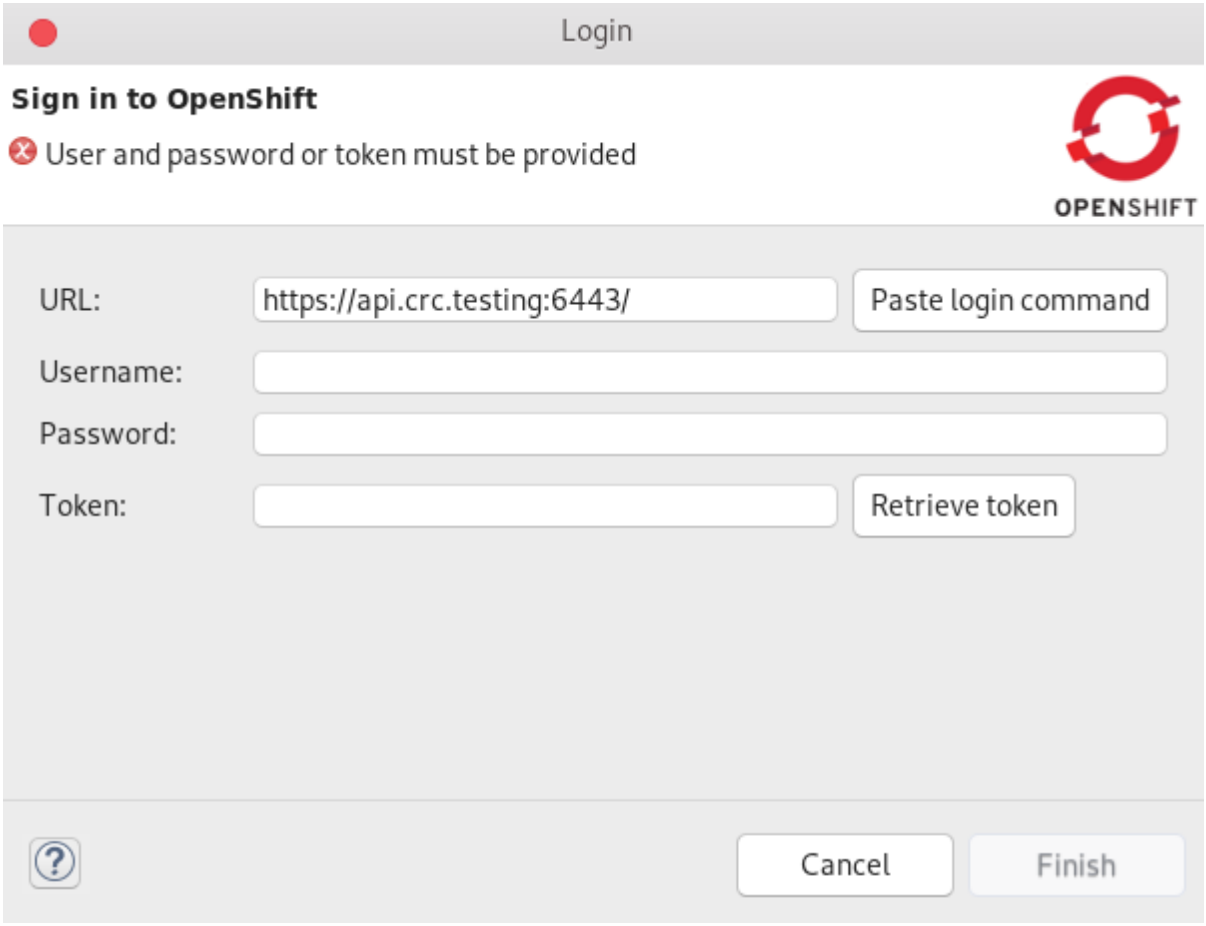
The following section describes how to login to the OpenShift cluster in CodeReady Studio using OpenShift Application Explorer.

Procedure

1. Start CodeReady Studio.
2. Open **OpenShift Application Explorer**.
3. Click **Can't connect to cluster. Click to login**



The **Login** window appears.



4. Paste your OpenShift API URL into the **URL** field.
   For more information on accessing your cluster through OpenShift API URL, visit Red Hat OpenShift - Accessing your Services.
5. Enter your username and password or token.
6. Click **Finish**.

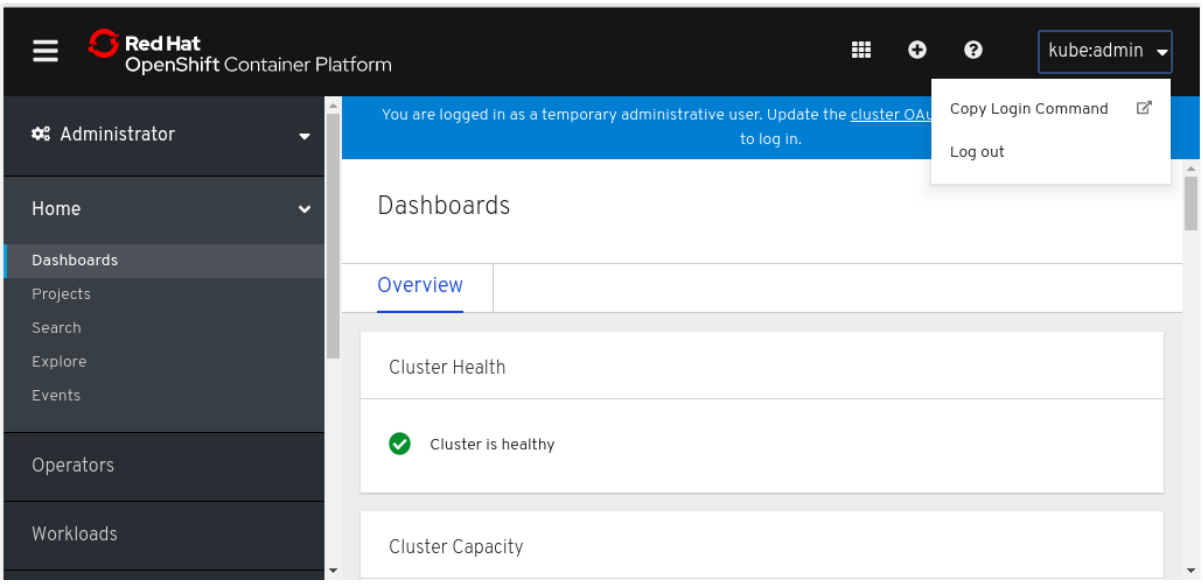
5.2.1. Browser-based token retrieval

Alternatively to providing your username and password or token, you can use browser based token retrieval to log in to your OpenShift cluster. There are two login options, "Paste Login Command" and "Retrieve Token".

Use "Paste Login Command"

1. Paste your OpenShift API URL into the **URL** field.
   For more information on accessing your cluster through OpenShift API URL, visit Red Hat OpenShift - Accessing your Services.

2. Visit the OpenShift Container Platform web UI.



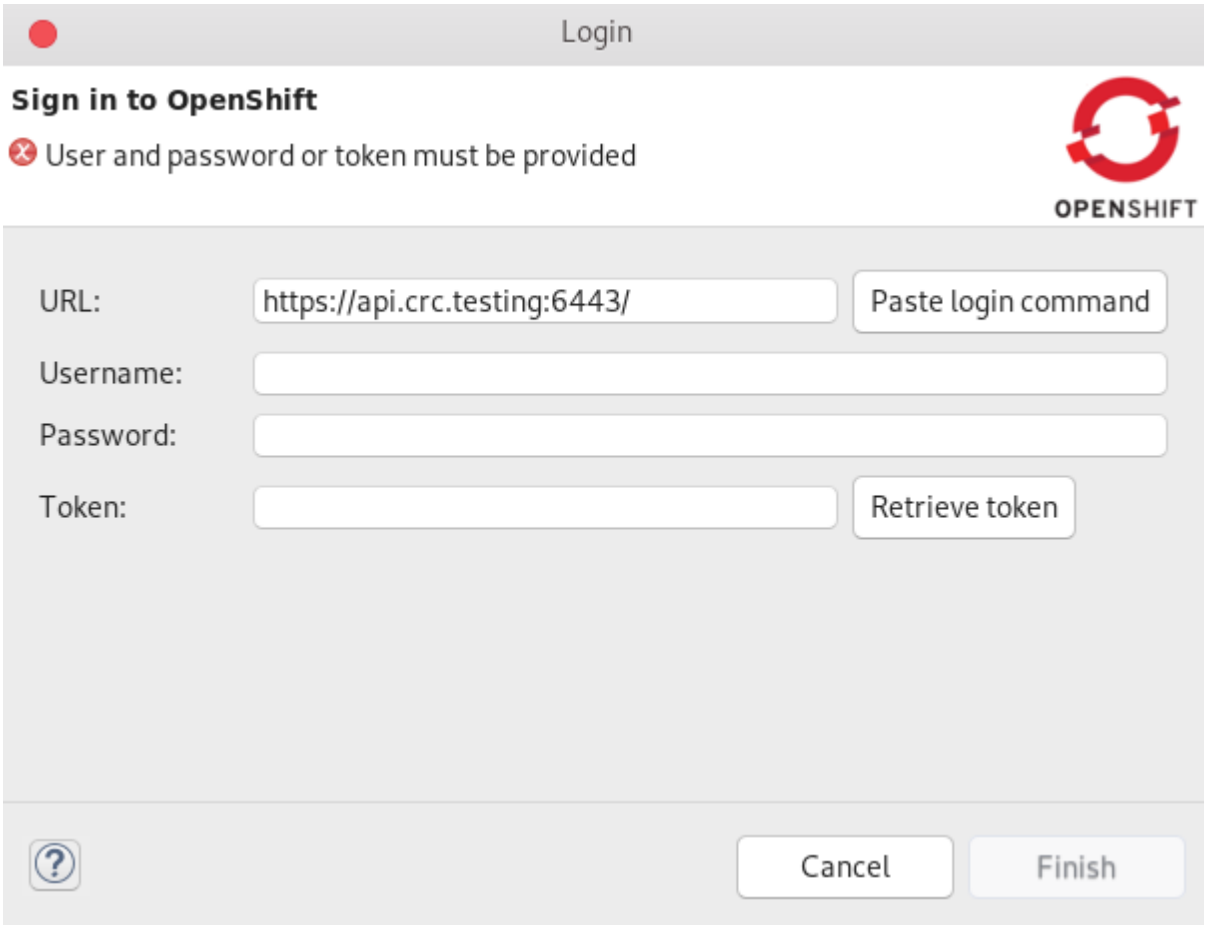
3. Click the drop-down menu in the top right corner.

4. Click **Copy Login Command**.

5. Click **Display Token**.

6. Copy the login command.

7. In the **Sign in to OpenShift** window, click **Paste login command**.



8. Click **Finish**.

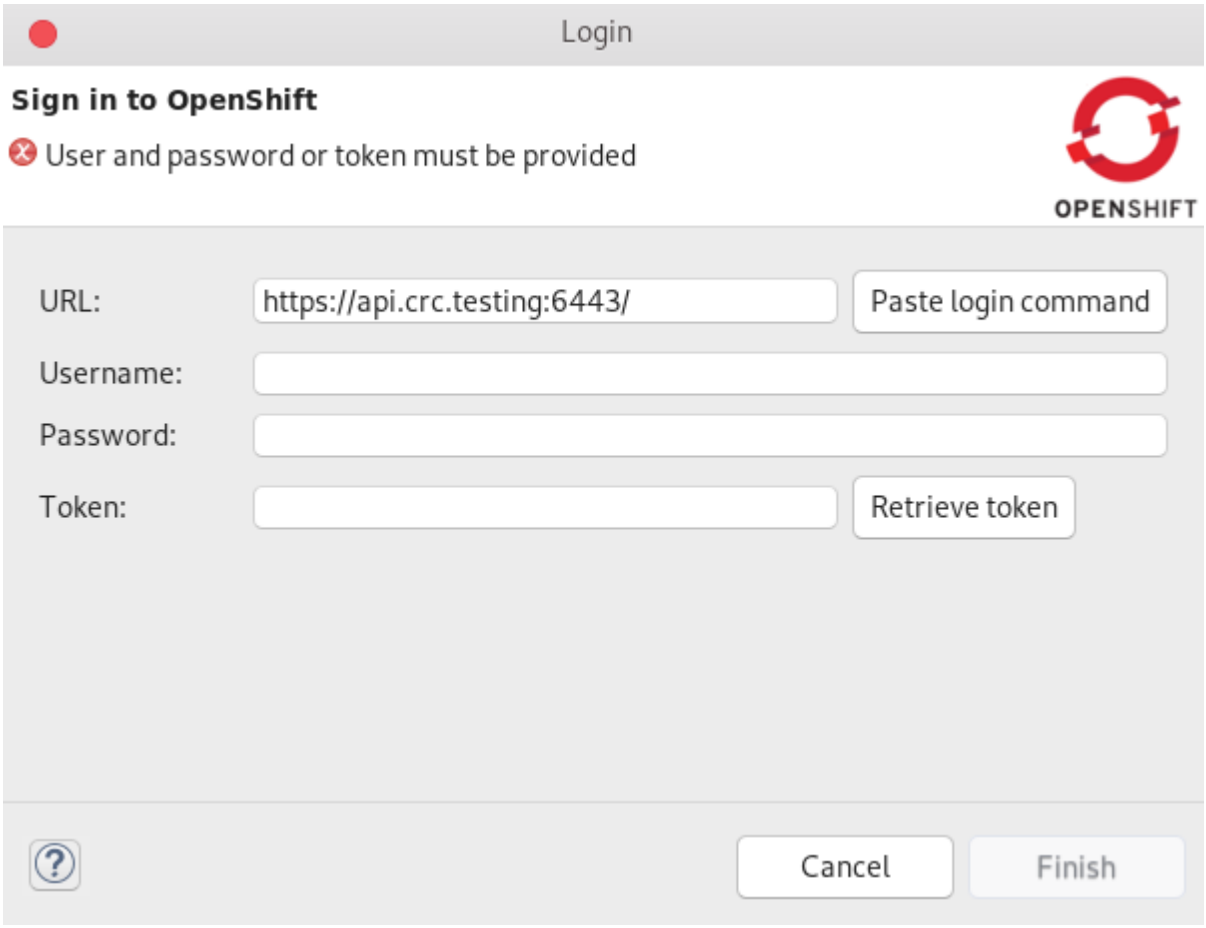
NOTE

For OpenShift 3, the login command is copied into your clipboard automatically.

Use "Retrieve Token"

1. Paste your OpenShift API URL into the **URL** field.
   For more information on accessing your cluster through OpenShift API URL, visit Red Hat OpenShift - Accessing your Services.

2. Click **Retrieve token**.



3. Enter your username and password.
4. Click **Log in**.
5. Click **Display Token**.
6. Click **Finish**.

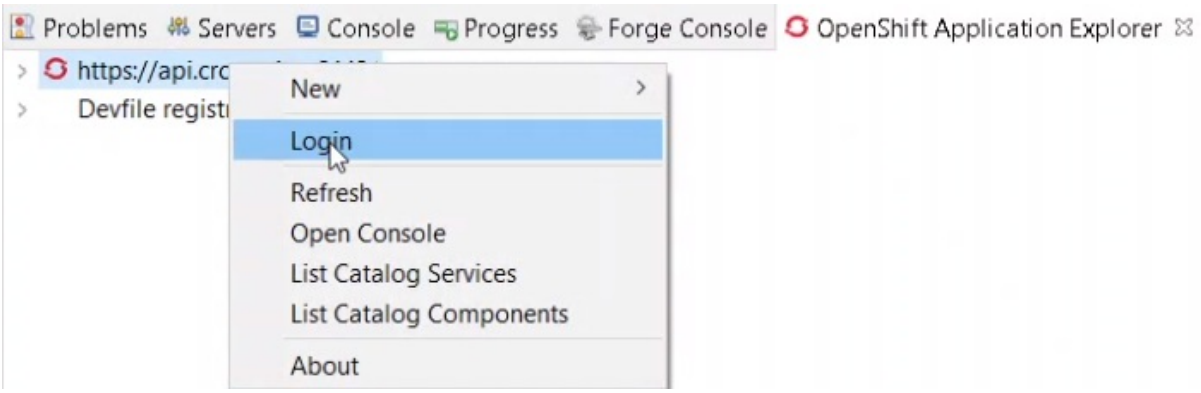
Your projects now appear in the **OpenShift Application Explorer** view.

5.3. SETTING UP A DEVELOPER SANDBOX USING OPENSHIFT TOOLS

The following section describes how to bootstrap and login to a Developer Sandbox in CodeReady Studio.

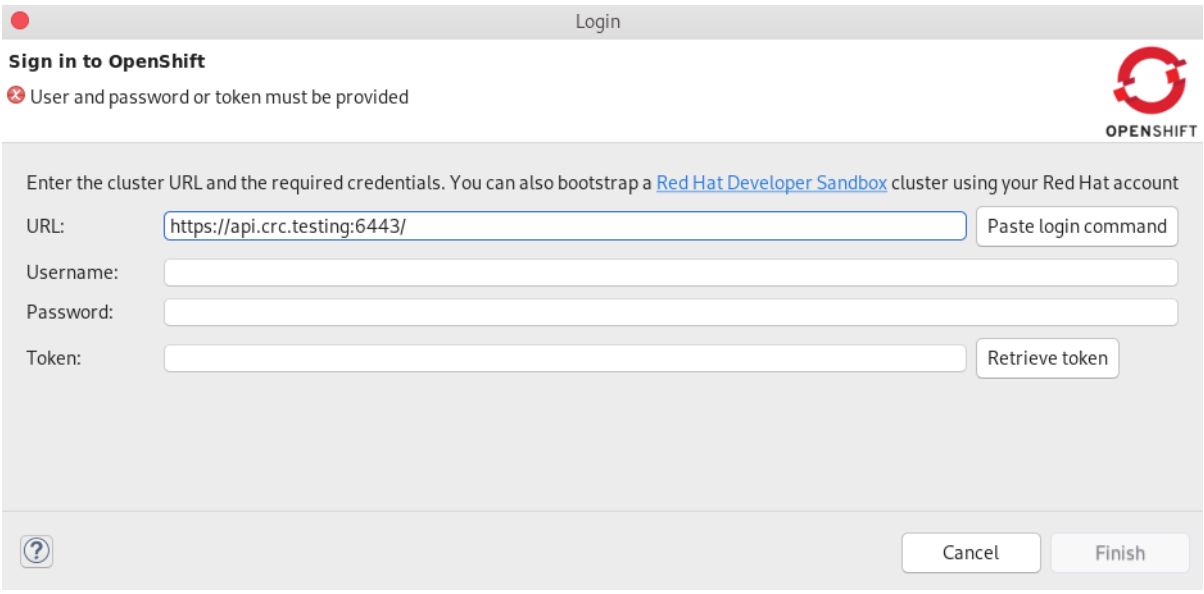
Procedure

1. Start CodeReady Studio.
2. Open **OpenShift Application Explorer**.



3. Right-click your OpenShift connection.

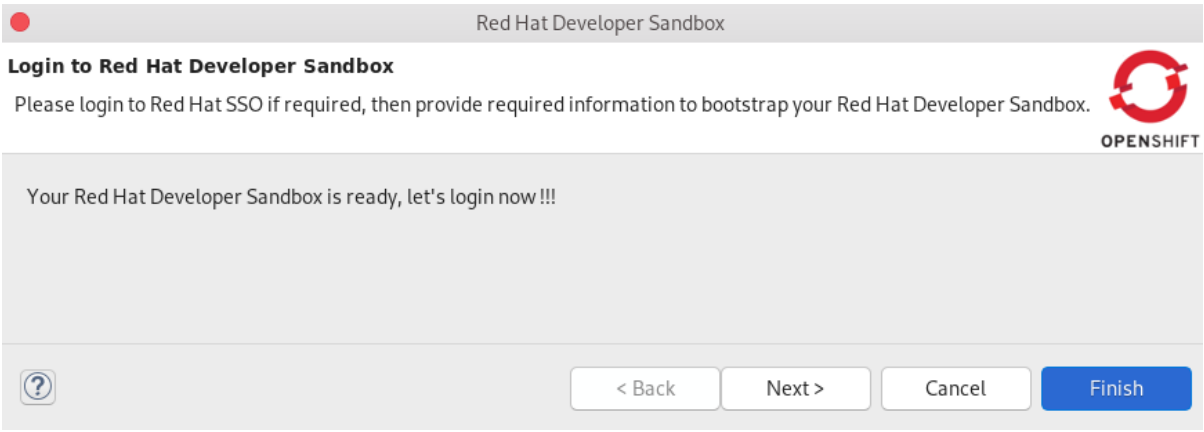
4. Click **Login**.
   The **Sign in to OpenShift** window appears.



5. Click **Red Hat Developer Sandbox**

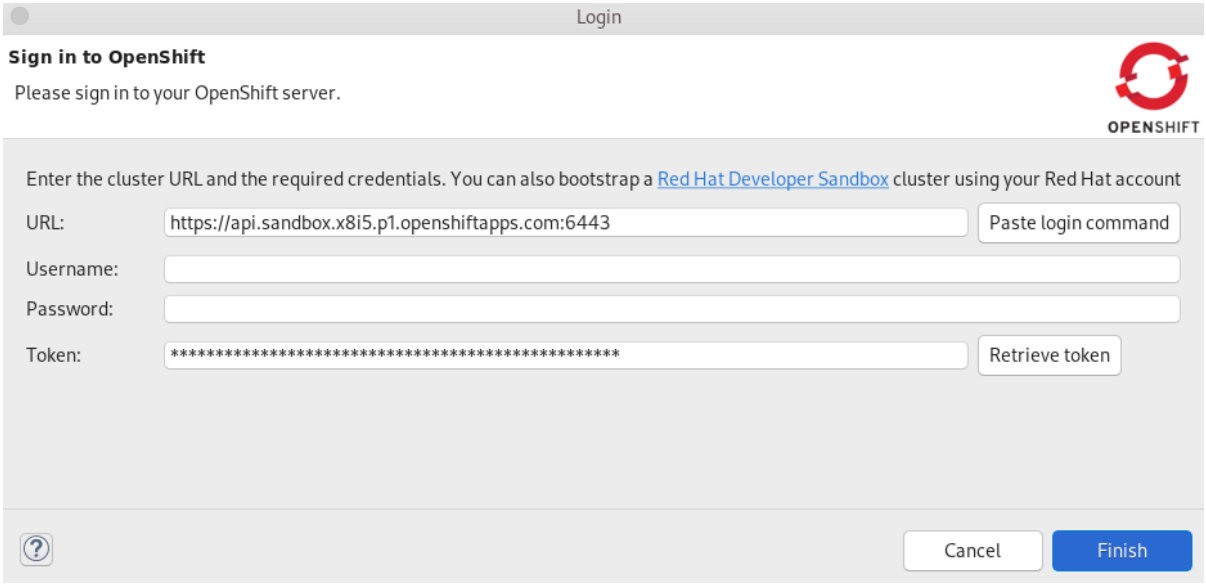
6. Provide the credentials of your Red Hat account and click **Log in**.
   Your Developer Sandbox has been bootstrapped.

   The **Login to Red Hat Developer Sandbox**window appears.



7. Click **Next**.

8. Click **DevSandbox**.
9. Provide the credentials of your Red Hat account again and click **Log in**.
10. Click **Display Token**.
11. Click **Finish**.
    Your Token is displayed in the **Sign in to OpenShift** window.



12. Click **Finish**.
    You are now logged in to your Developer Sandbox.

Your Developer Sandbox shows in the OpenShift Application Explorer view.

5.4. BUILDING AN APPLICATION BASED ON DEVFILES

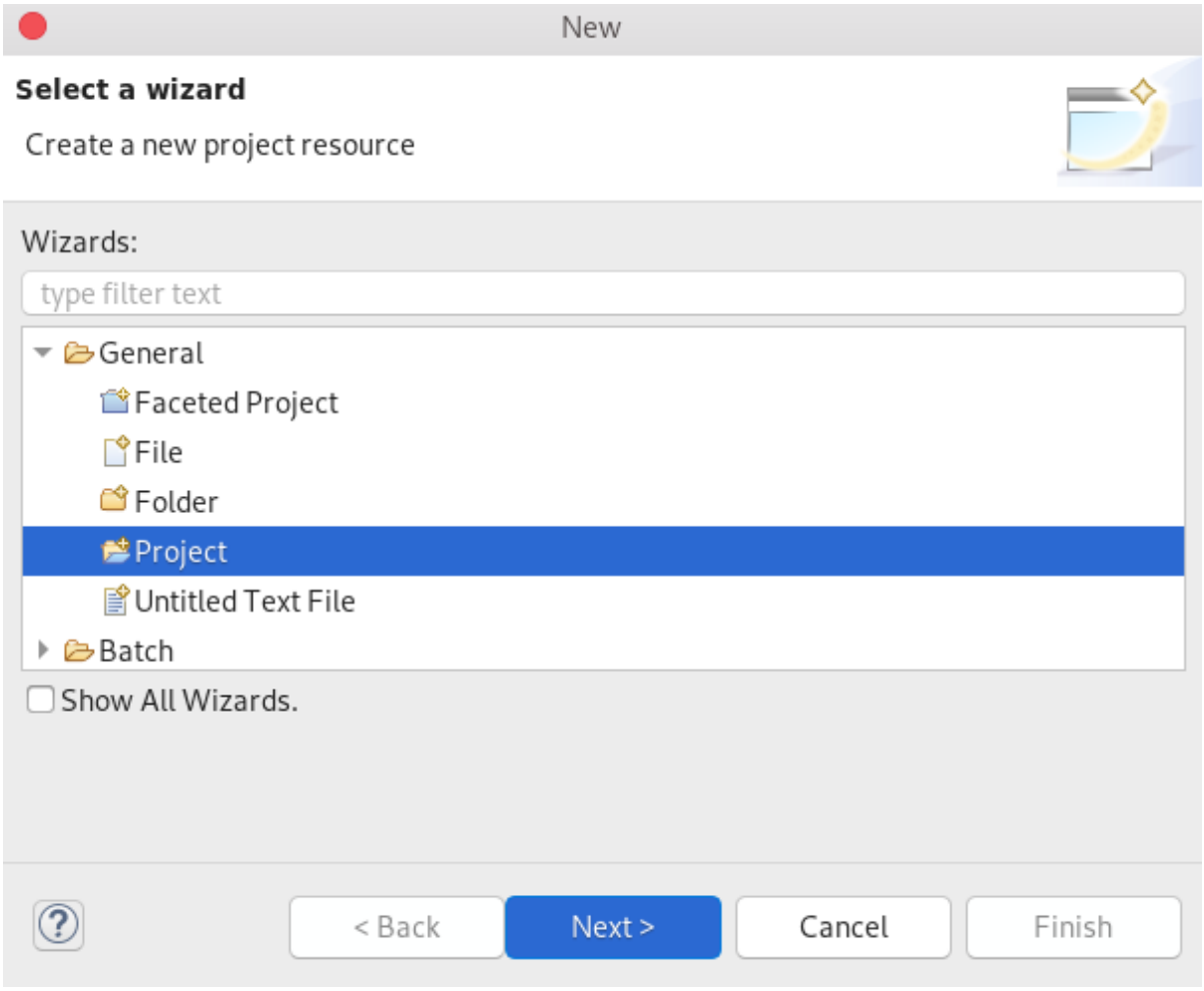
To deploy applications based on devfiles, you need an empty project in your local workspace as well as an empty project in OpenShift, for which you need to create a devfile component. After the component is established, your project will be updated and local and remote artifacts created in OpenShift.

5.4.1. Creating an empty project

The following section describes how to create an empty project in CodeReady Studio.

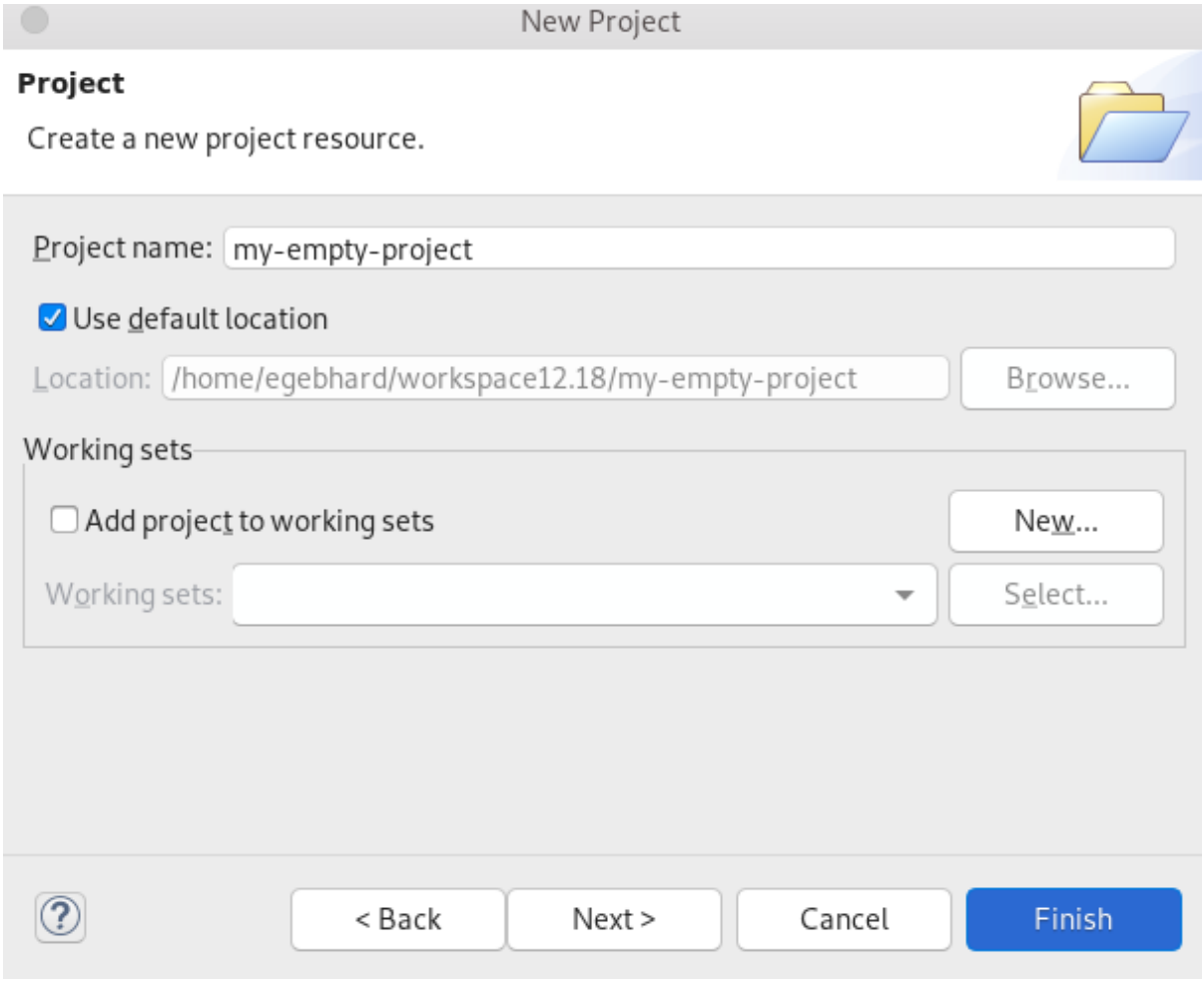
Procedure

1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



3. Select **General → Project**.

4. Click **Next**.
   The **New Project** window appears.



5. Name your project.
6. Select the location for your project.
7. Click **Finish**.

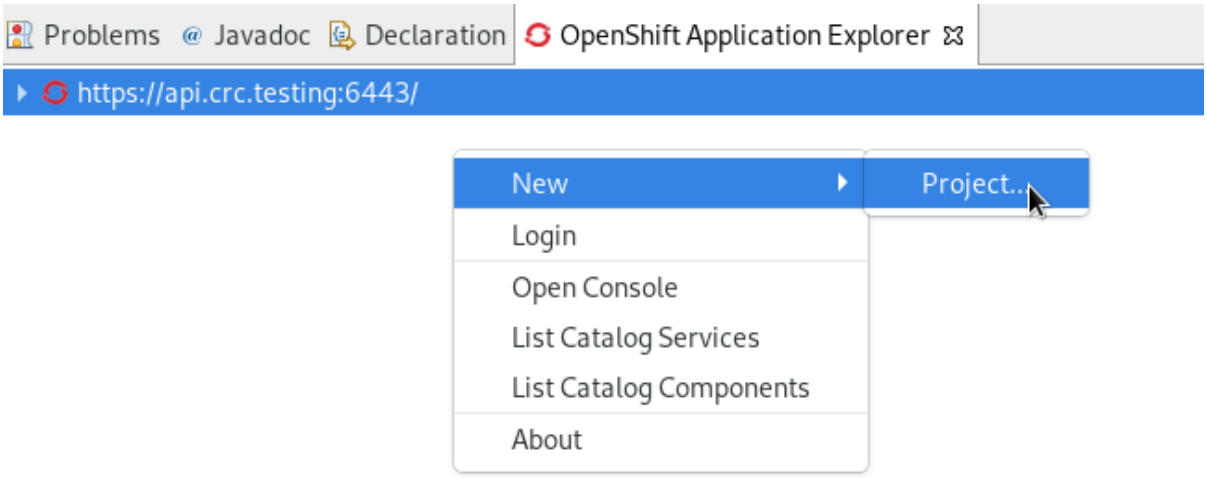
Your newly created empty project is now listed in the **Project Explorer** view.

5.4.2. Creating an empty OpenShift project using OpenShift Application Explorer

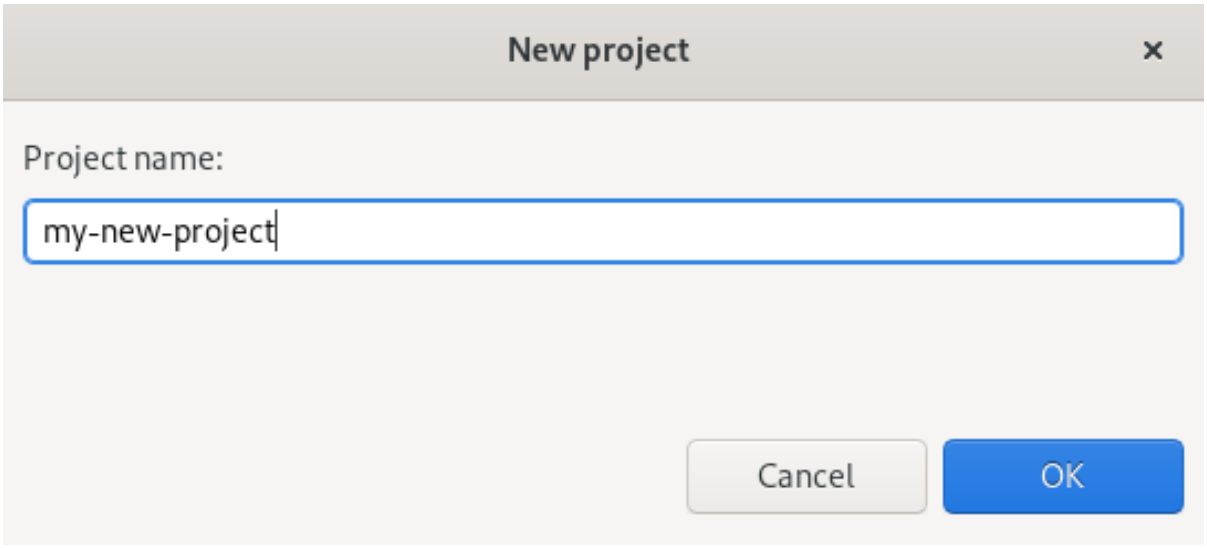
The following section describes how to create an empty project using OpenShift Application Explorer in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Start **OpenShift Application Explorer**.
3. Right-click any place in **OpenShift Application Explorer → New → Project**.



The **New project** window appears.



4. Name your project.
5. Click **OK**.

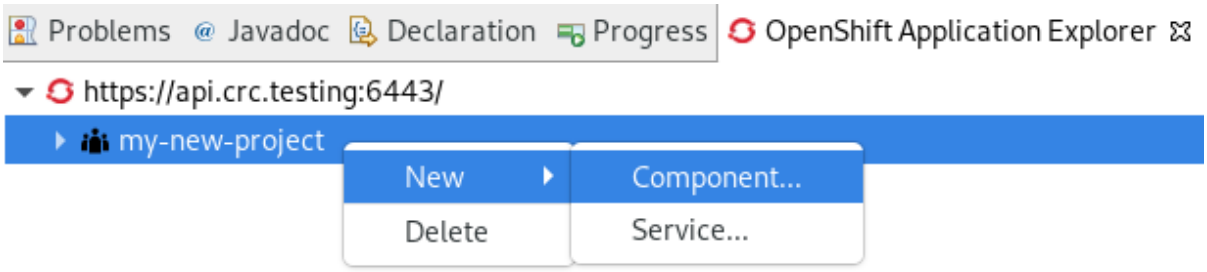
Your newly created project is now listed in the **OpenShift Application Explorer** view.

5.4.3. Creating a devfile component using OpenShift Application Explorer

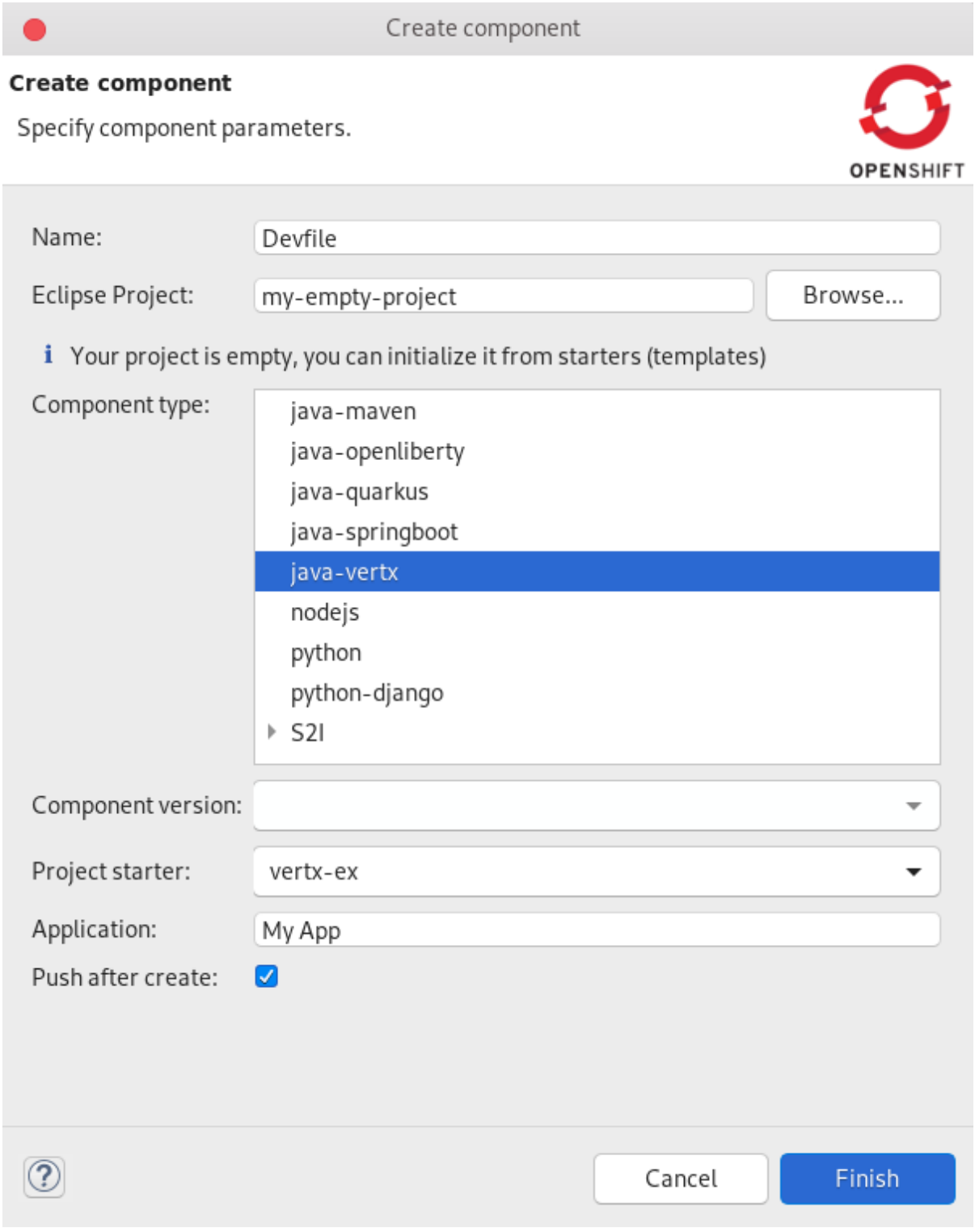
The following section describes how to create a devfile component using OpenShift Application Explorer in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Start **OpenShift Application Explorer**.
3. Right-click the target **Project → New → Component**.



The **Create component** window appears.



4. Name your project.

5. Click **Browse** to select your **Eclipse Project**.
6. Set your **Component type** to **java-vertx**.
7. Set the **Project starter** to **java-vertx**.
8. Name your application.
9. Clear the **Push after create** check box.
10. Click **Finish**.

The **Console** view appears, displaying the validation process.

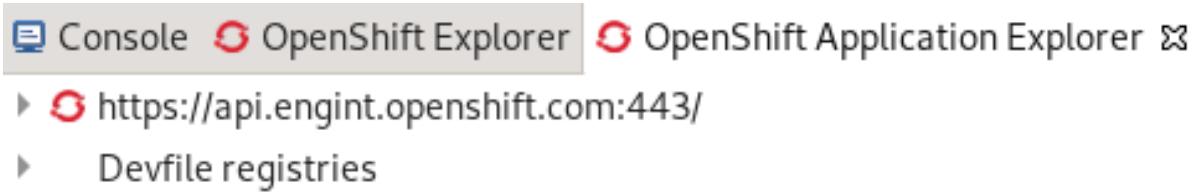
Your newly created component is now listed in the **OpenShift Application Explorer** view under your project.

5.4.4. Devfile registry management using OpenShift Application Explorer

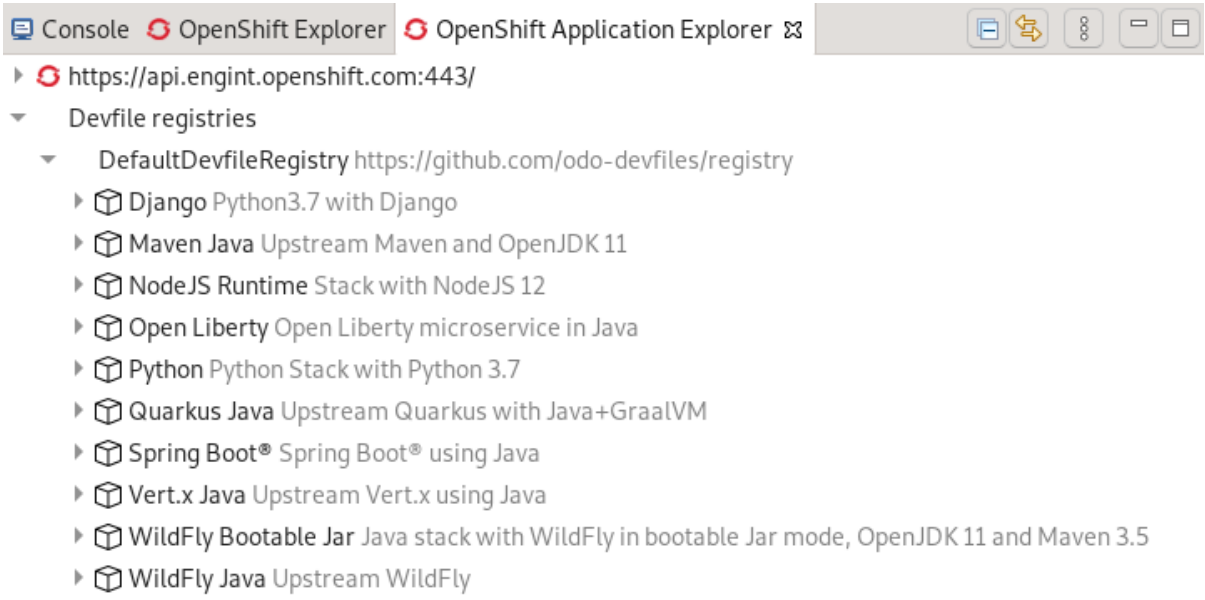
The following section describes how to create, delete, and edit devfile registries using OpenShift Application Explorer in CodeReady Studio.

Adding a devfile registry

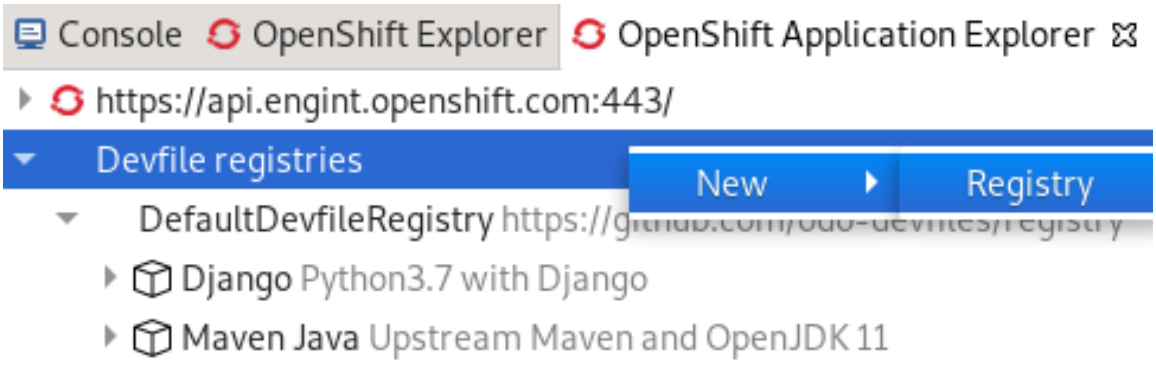
1. Start CodeReady Studio.
2. Start **OpenShift Application Explorer**.
3. Devfile registries are displayed under the **Devfile registries** node.



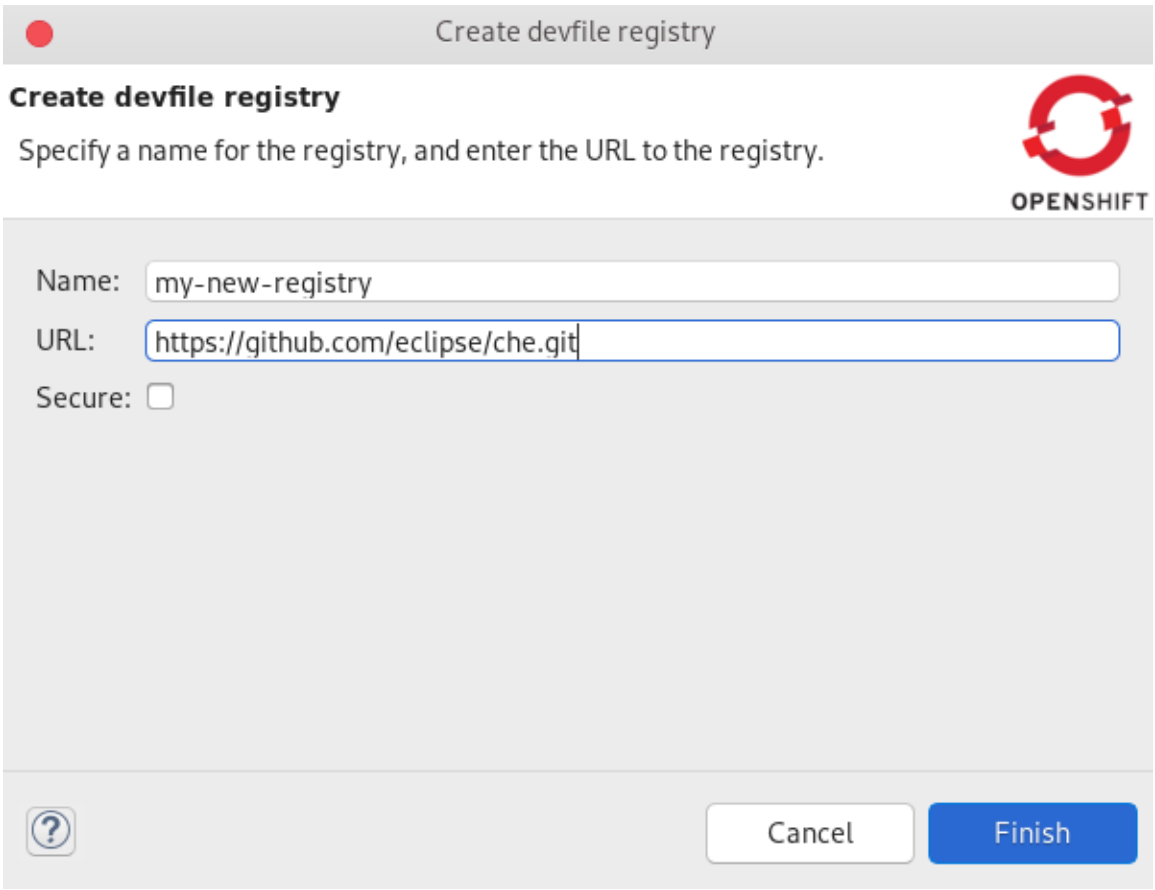
4. If you expand the devfile registry node, all devfiles of that registry are shown.



- To add a new devfile registry, right-click **Devfile registries** and click **new**.



The **Create devfile registry** window appears.

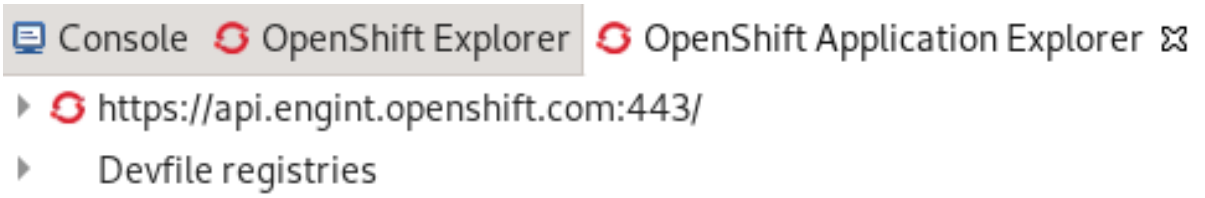


5. Name your devfile registry.
6. Paste your devfile URL.
7. Click **Finish**.

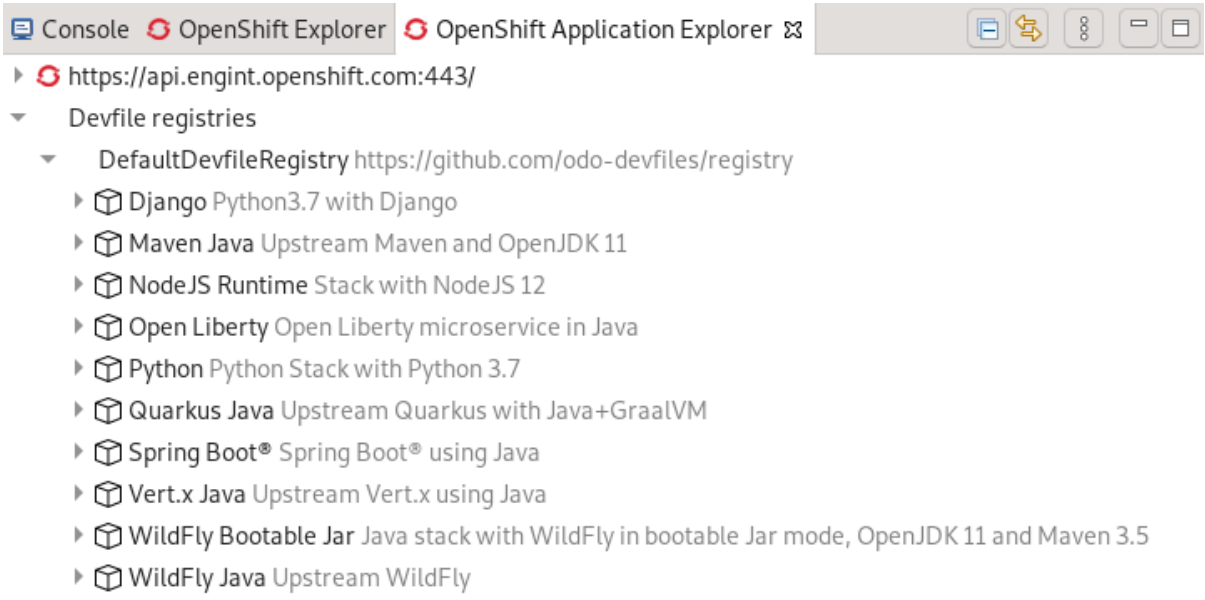
Your newly created devfile registry is now listed in the **OpenShift Application Explorer** view under **Devfile registries**.

Deleting a devfile registry

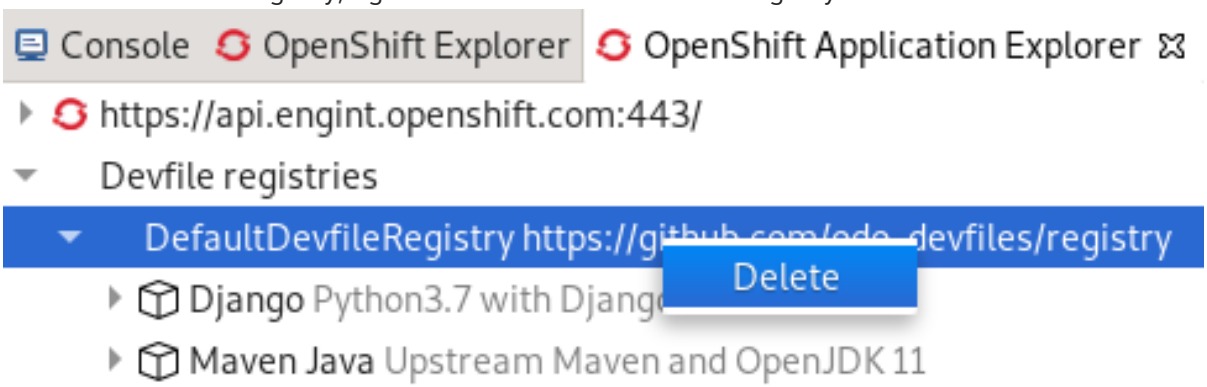
1. Start CodeReady Studio.
2. Start **OpenShift Application Explorer**.
3. Devfile registries are displayed under the **Devfile registries** node.



4. An expanded devfile registry node shows all devfiles of that registry.



5. To delete a devfile registry, right click the node of a devfile registry and click **delete**.



Your devfile registry is now deleted.

Editing a devfile registry

- To edit a devfile registry, use the YAML editor. The YAML editor provides syntax validation and content assist.

Additional resources

For further information on devfiles, visit Introduction to Devfile.

5.5. BUILDING AN APPLICATION BASED ON S2I FILES

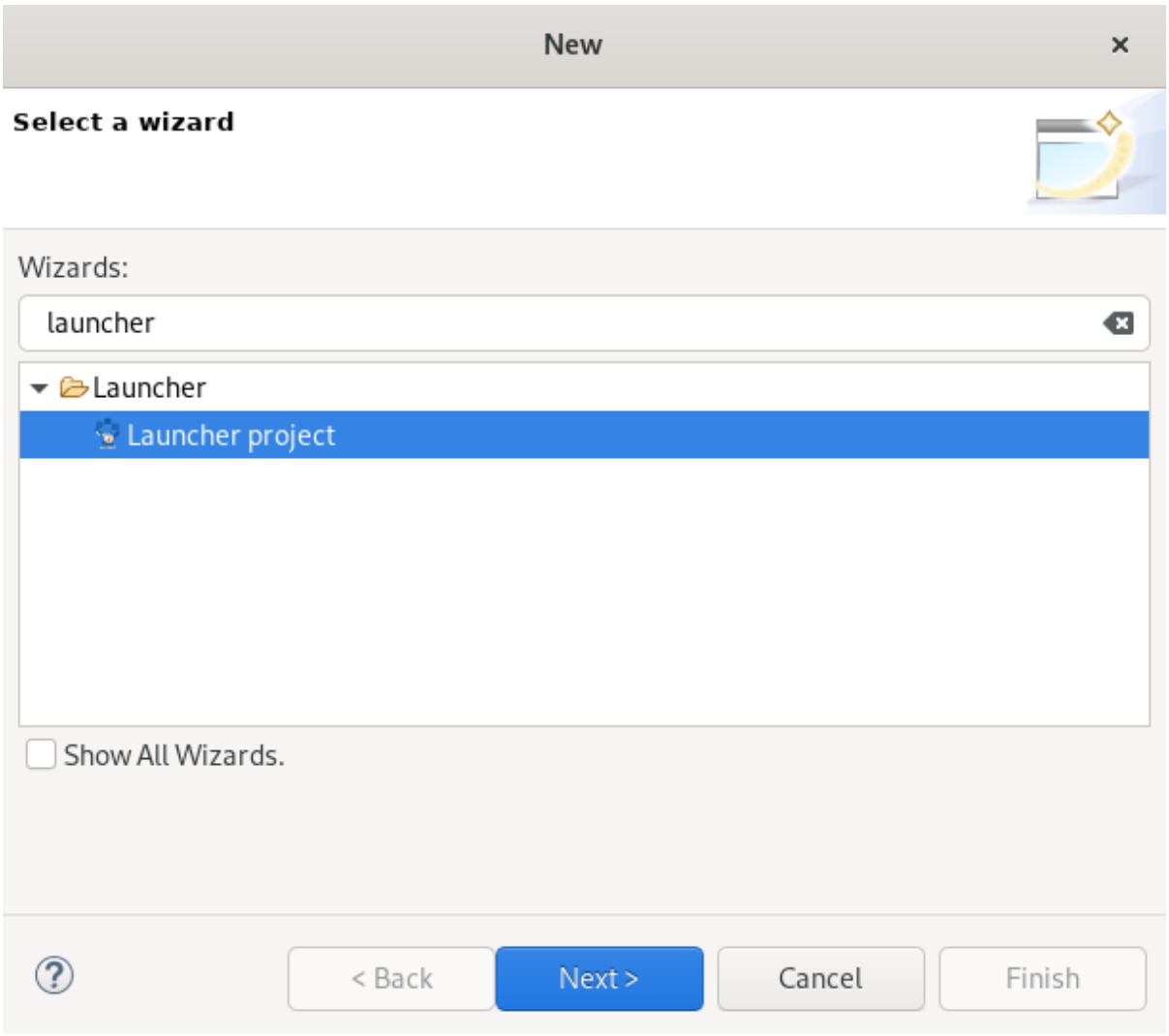
To deploy applications based on S2I files, you need a launcher project in your local workspace as well as an empty project in OpenShift, for which you need to create a component. After the component is established, your project will be updated and local and remote artifacts created in OpenShift.

5.5.1. Creating a launcher project

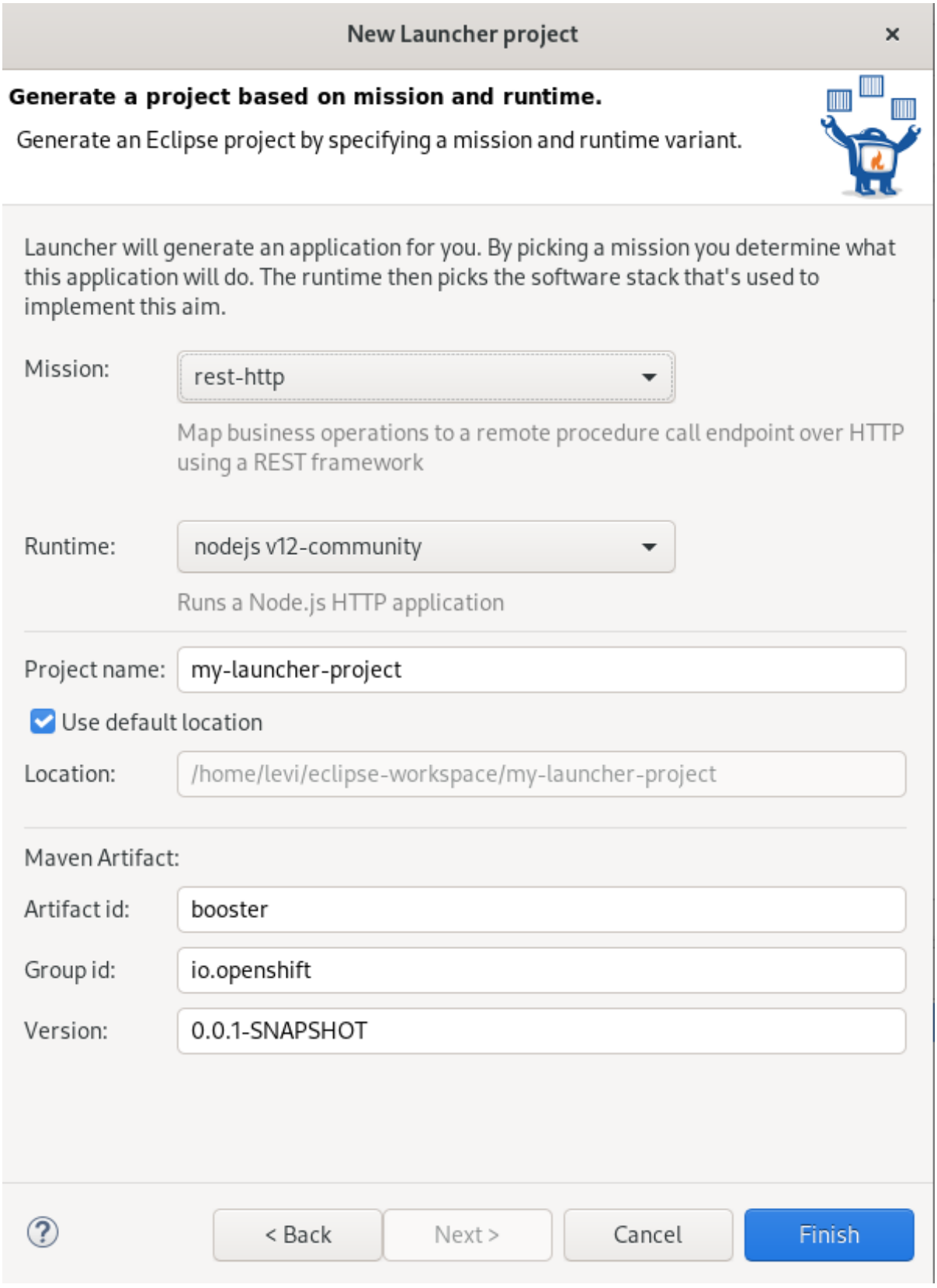
The following section describes how to create a launcher project in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



3. Enter **Launcher** in the search field.
4. Select **Launcher project**.
5. Click **Next**.
   The **New Launcher project** window appears.



6. Set **Mission** to **rest-http**.
7. Set **Runtime** to **vert.x community**.
8. Name your project.
9. Select the location for your project.
10. Click **Finish**.

Note that the process of resolving dependencies might take some time to complete.

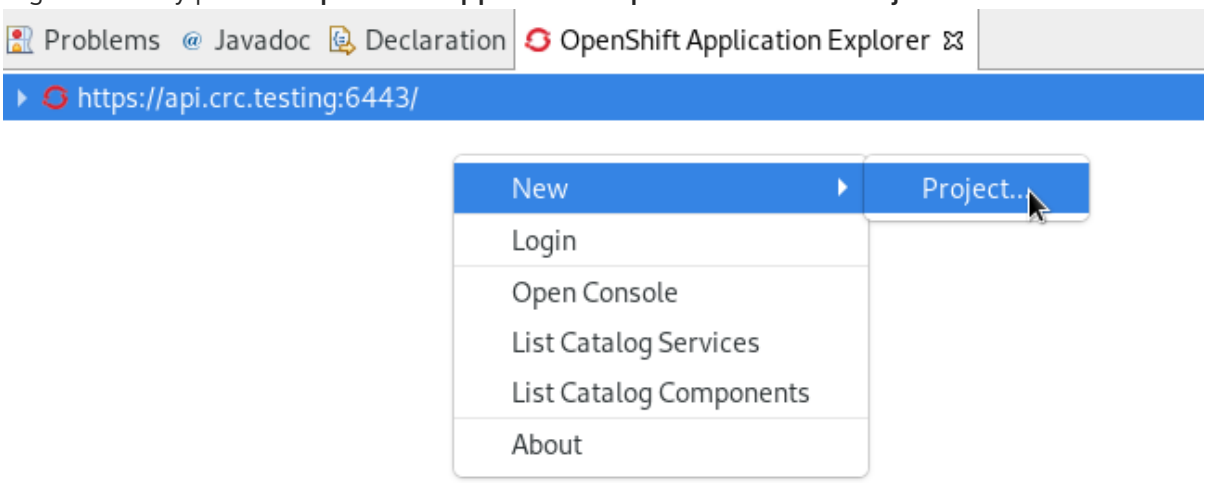
Your newly created launcher project is now listed in the **Project Explorer** view.

5.5.2. Creating an empty OpenShift project in OpenShift Application Explorer

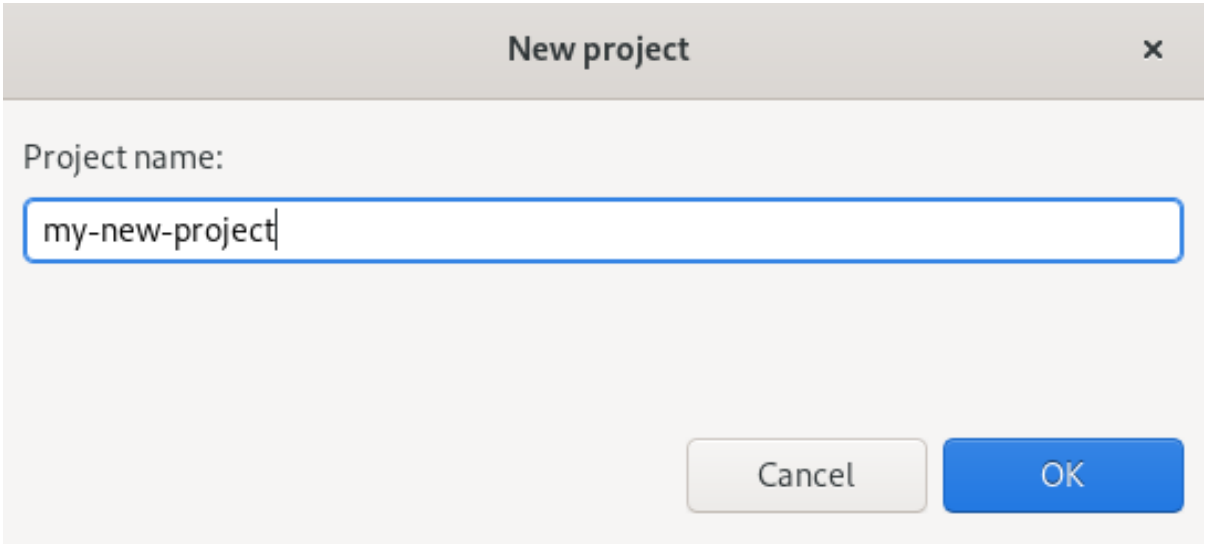
The following section describes how to create an empty project using OpenShift Application Explorer in CodeReady Studio.

Procedure

1. Right-click any place in **OpenShift Application Explorer → New → Project**.



The **New project** window appears.



2. Name your project.
3. Click **OK**.

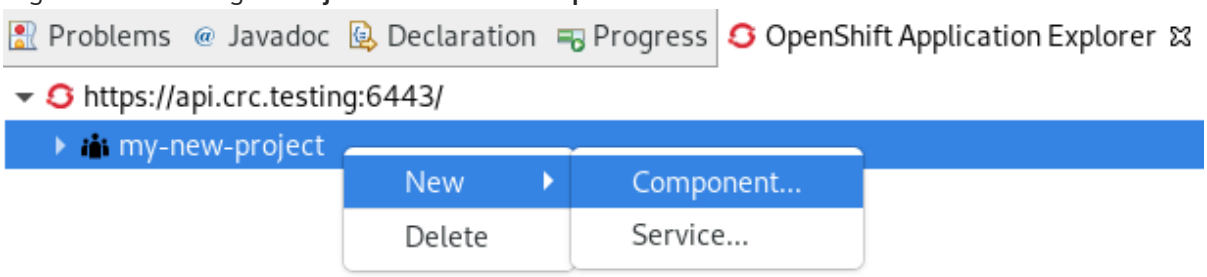
Your newly created project is now listed in the **OpenShift Application Explorer** view.

5.5.3. Creating an S2I component using OpenShift Application Explorer

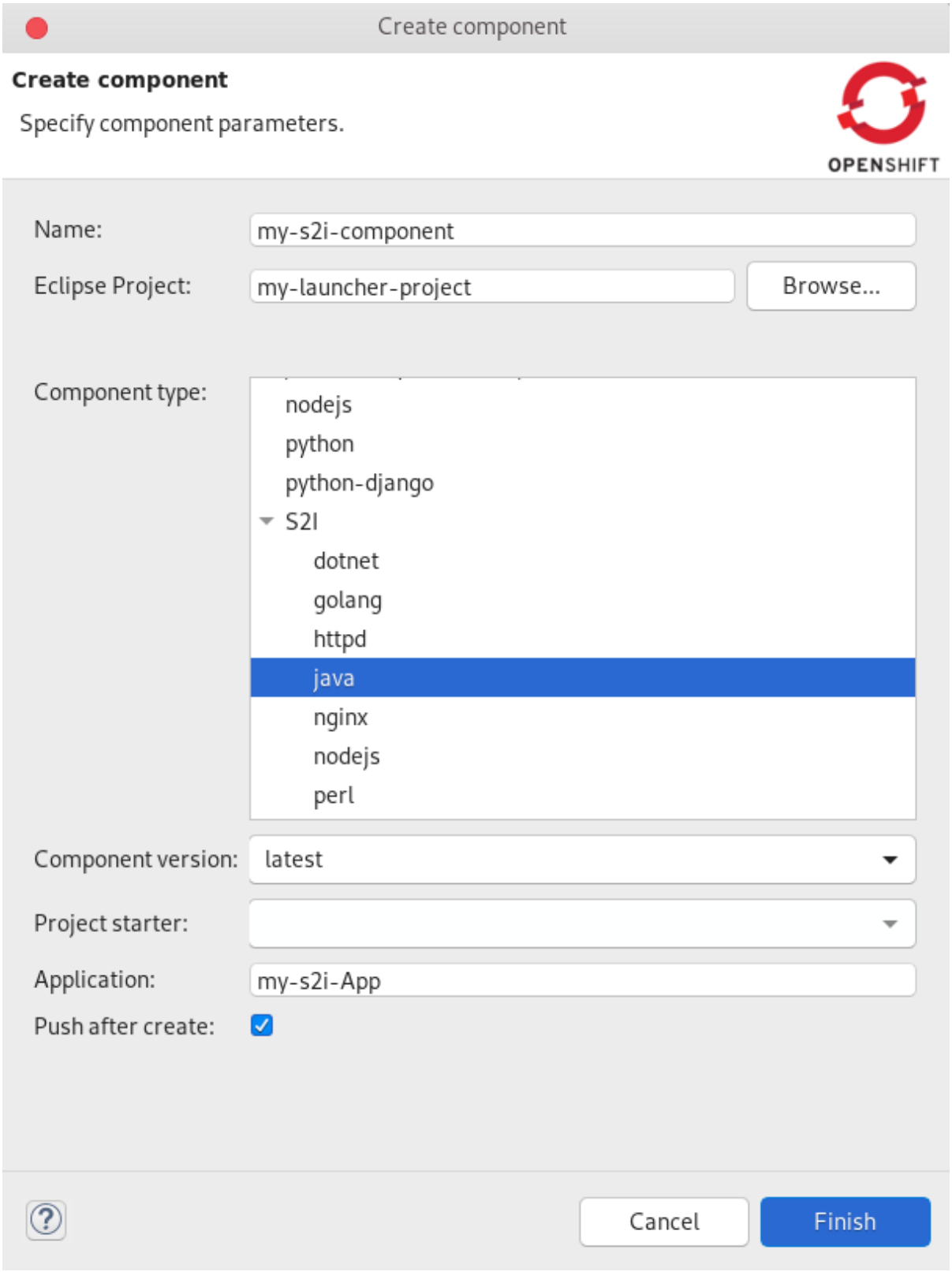
The following section describes how to create a component using OpenShift Application Explorer in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Start **OpenShift Application Explorer**.
3. Right-click the target **Project → New → Component**.



The **Create component** window appears.



4. Name your project.
5. Click **Browse** to select your **Eclipse Project**.
6. Click on the arrow next to **S2I** and set your **Component type** to **java**.
7. Set the **Component version** to **latest**.
8. Name your application.
9. Clear the **Push after create** check box.

10. Click **Finish**.

The **Console** view appears, displaying the validation process.

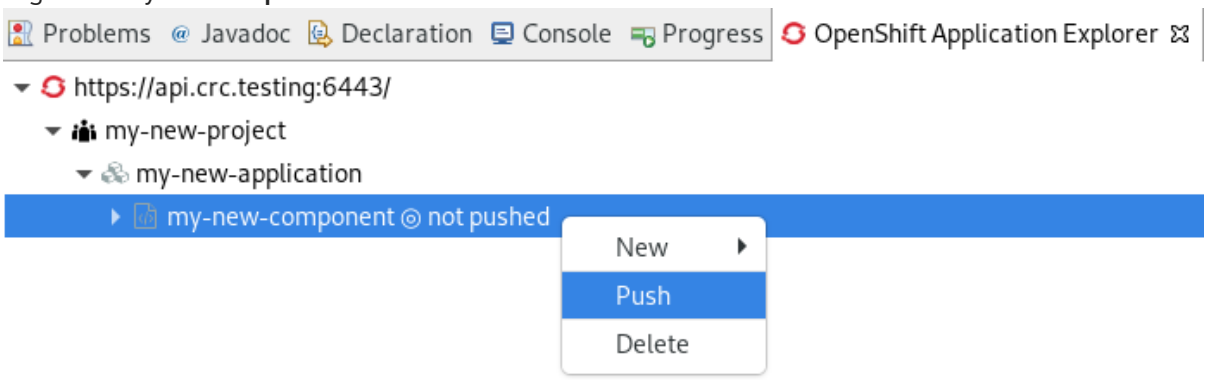
Your newly created component is now listed in the **OpenShift Application Explorer** view under your project.

5.6. DEPLOYING A COMPONENT ON A CLUSTER USING OPENSHIFT APPLICATION EXPLORER

The following section describes how to deploy a component on a cluster using OpenShift Application Explorer in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Start **OpenShift Application Explorer**.
3. Expand your project.
4. Expand your application.
5. Right-click your **component → Push**.



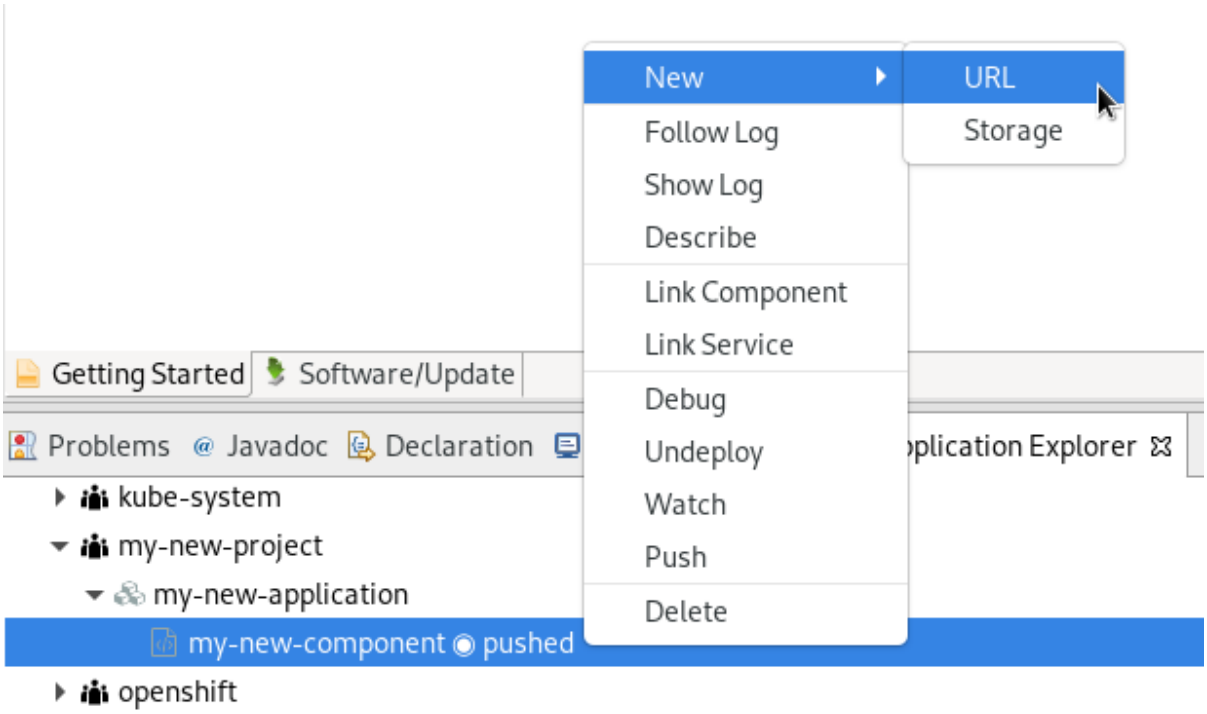
The **Console** view appears, displaying the process of file synchronization.

5.7. DEFINING AN EXTERNAL ACCESS URL USING OPENSHIFT APPLICATION EXPLORER

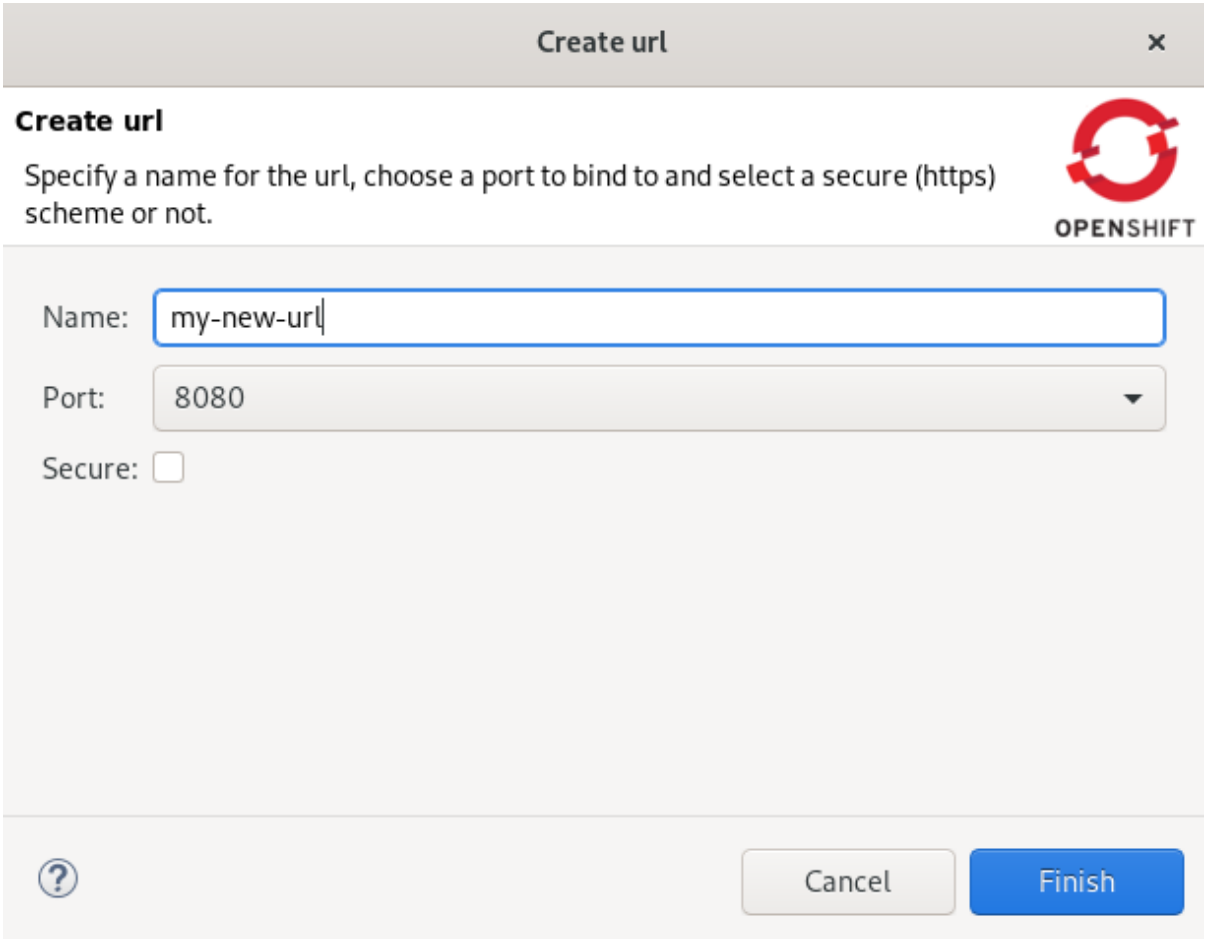
The following section describes how to define an external access URL using OpenShift Application Explorer in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Start **OpenShift Application Explorer**.
3. Expand your project.
4. Expand your application.
5. Right-click your **component → New → URL**.

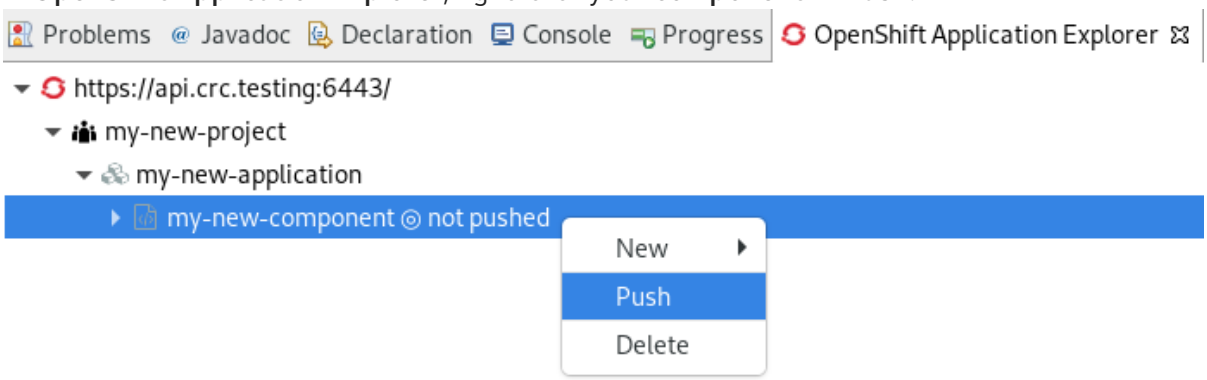


The **Create URL** window appears.



6. Name your URL.
7. Set the **Port** value to **8080**.
8. Click **Finish**.
   The **Console** view appears, displaying the process of URL creation.

9. In **OpenShift Application Explorer**, right-click your **component → Push**.



The **Console** view appears, displaying the process of file synchronization.

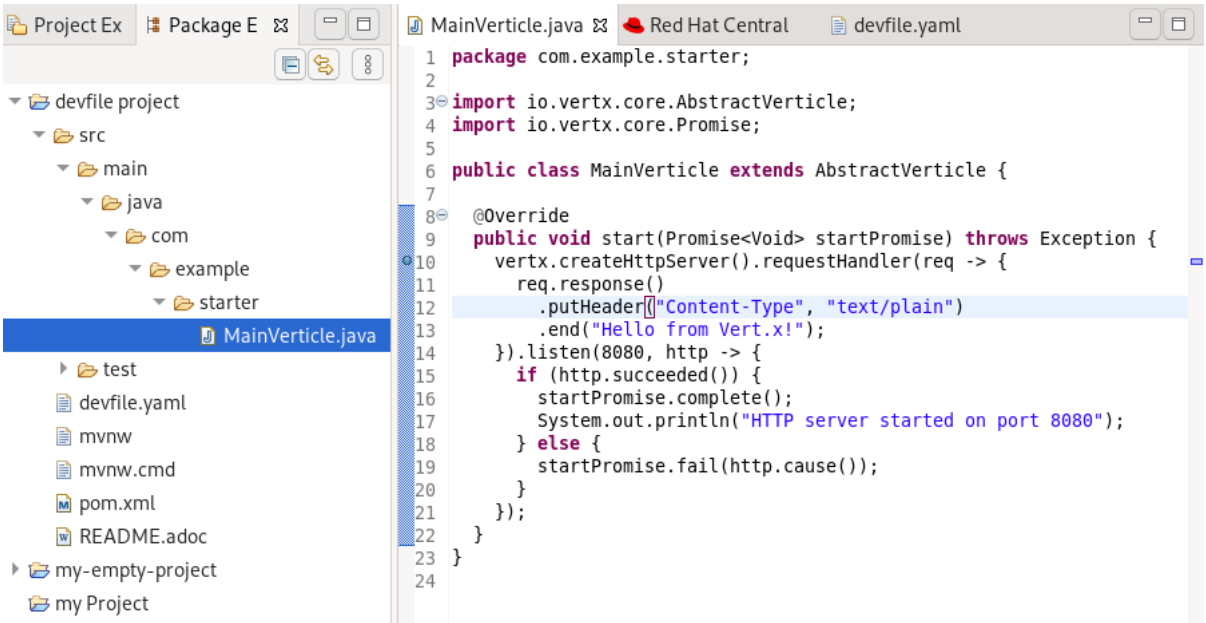
Your newly created URL is now listed in the **OpenShift Application Explorer** view under your component.

5.8. DEBUGGING AN APPLICATION ON A CLUSTER USING OPENSHIFT APPLICATION EXPLORER

The following section describes how to debug an application on a cluster using OpenShift Application Explorer in CodeReady Studio.

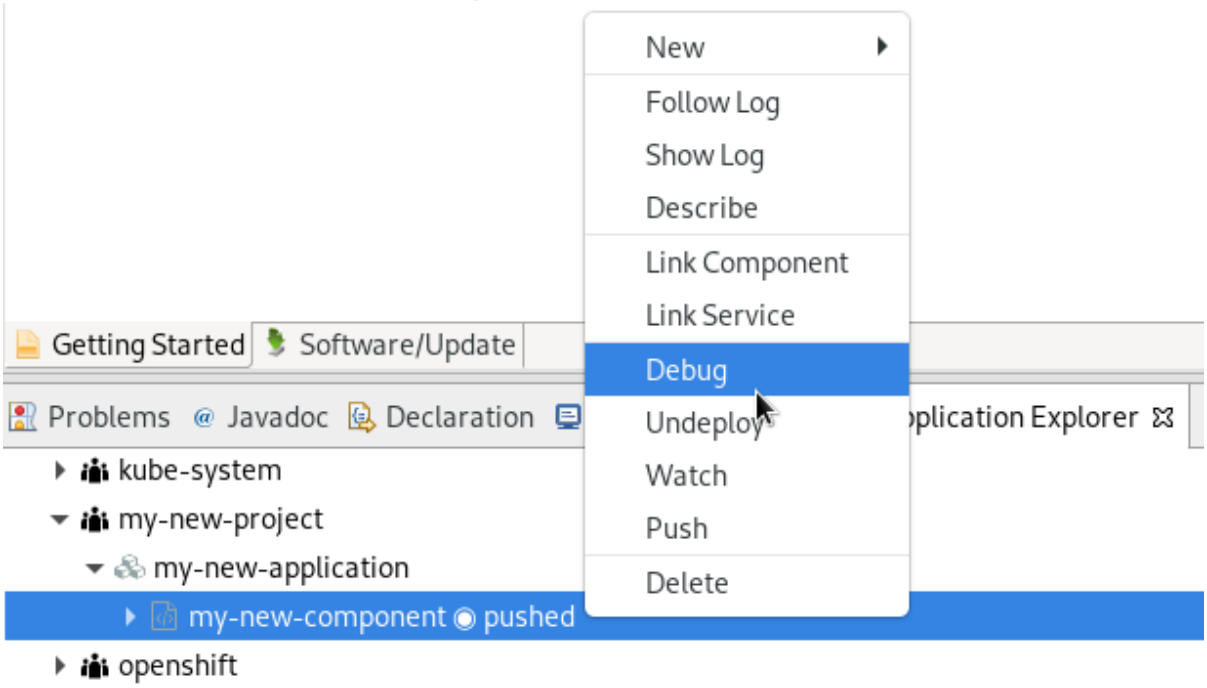
Procedure

1. Start CodeReady Studio.
2. In the Project Explorer view, locate the **MainVerticle.java**(devfiles) or **HttpApplication.java**(S2I) file and double-click to open it.
3. Double-click on the left ruler column to set a breakpoint.



4. Open **OpenShift Application Explorer**.
5. Expand your project.
6. Expand your application.

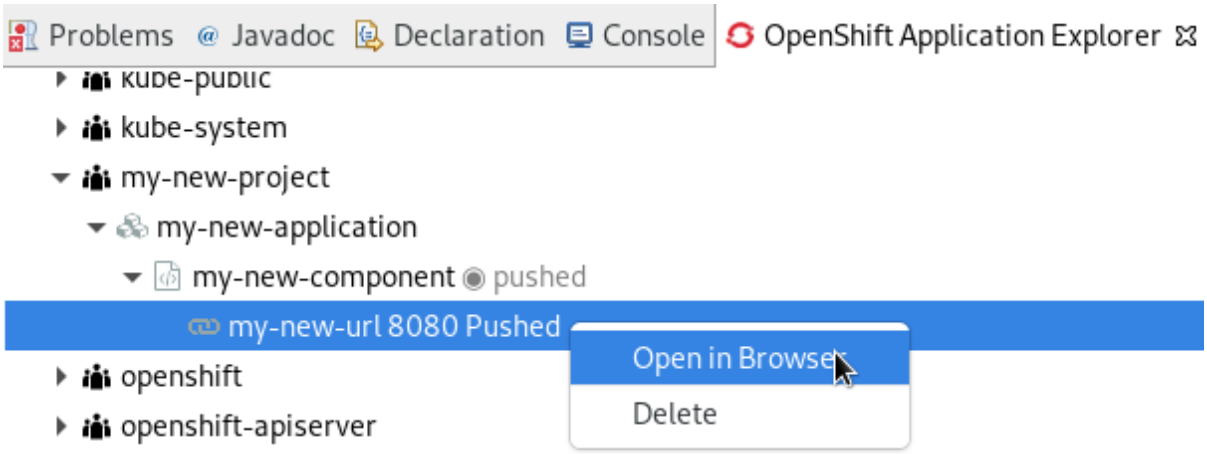
7. Right-click your **component → Debug**.



The **Console** view appears.

8. In **OpenShift Application Explorer**, expand your component.

9. Right-click your **url → Open in Browser**.



The **Confirm Perspective Switch** window appears.

10. Click **Switch**.
The **Debug Perspective** window appears displaying the debugging process.

CHAPTER 6. QUARKUS TOOLS BASICS IN CODEREADY STUDIO

Quarkus is a Kubernetes-Native full-stack Java framework aimed to optimize work with Java virtual machines. Quarkus provides tools for Quarkus application developers, helping to reduce the size of Java applications and container image footprints, as well as the amount of memory required.

Prerequisites

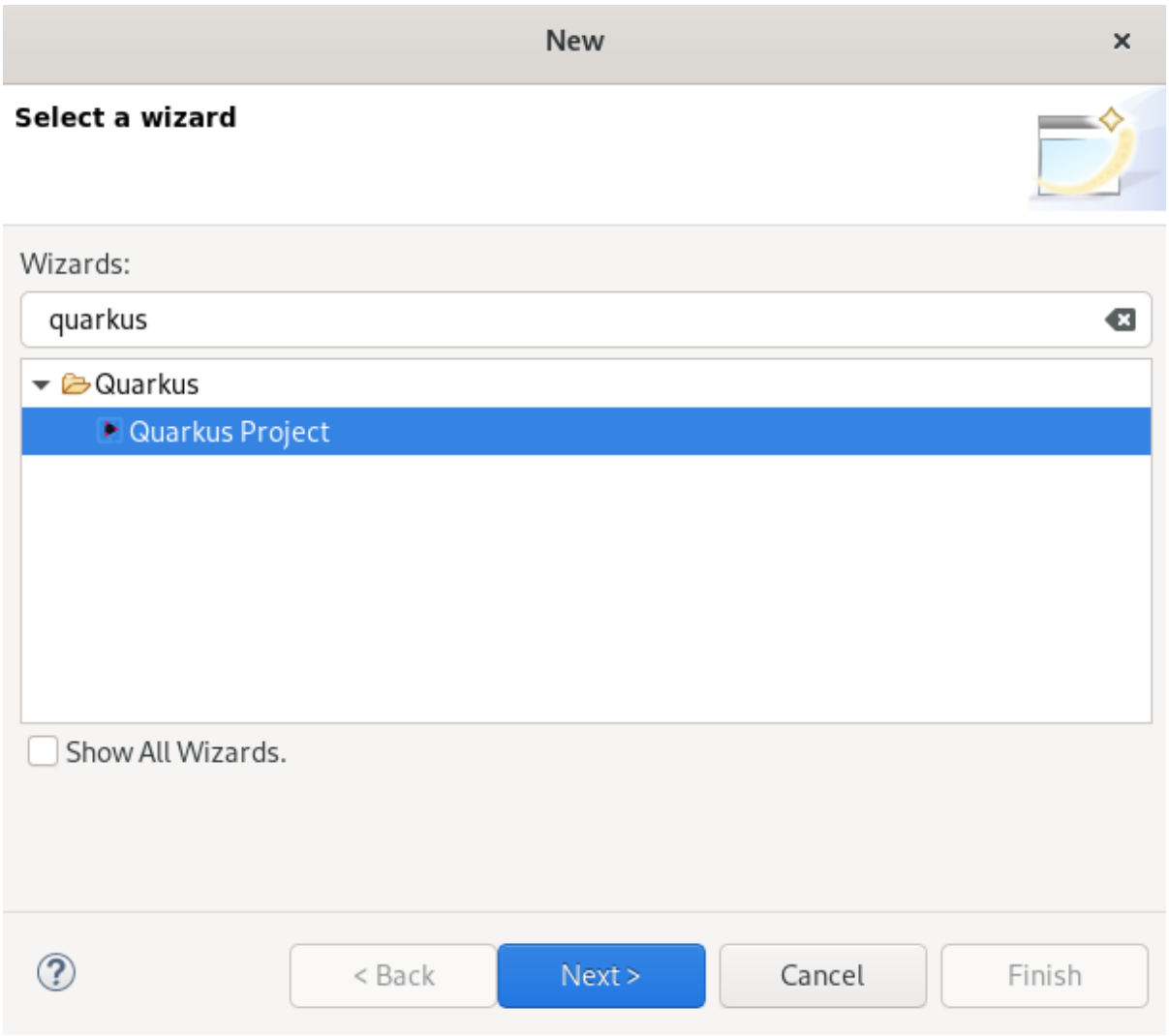
- The latest version of JBoss Tools is installed. For more information, see JBoss Tools Downloads.

6.1. CREATING A NEW QUARKUS PROJECT

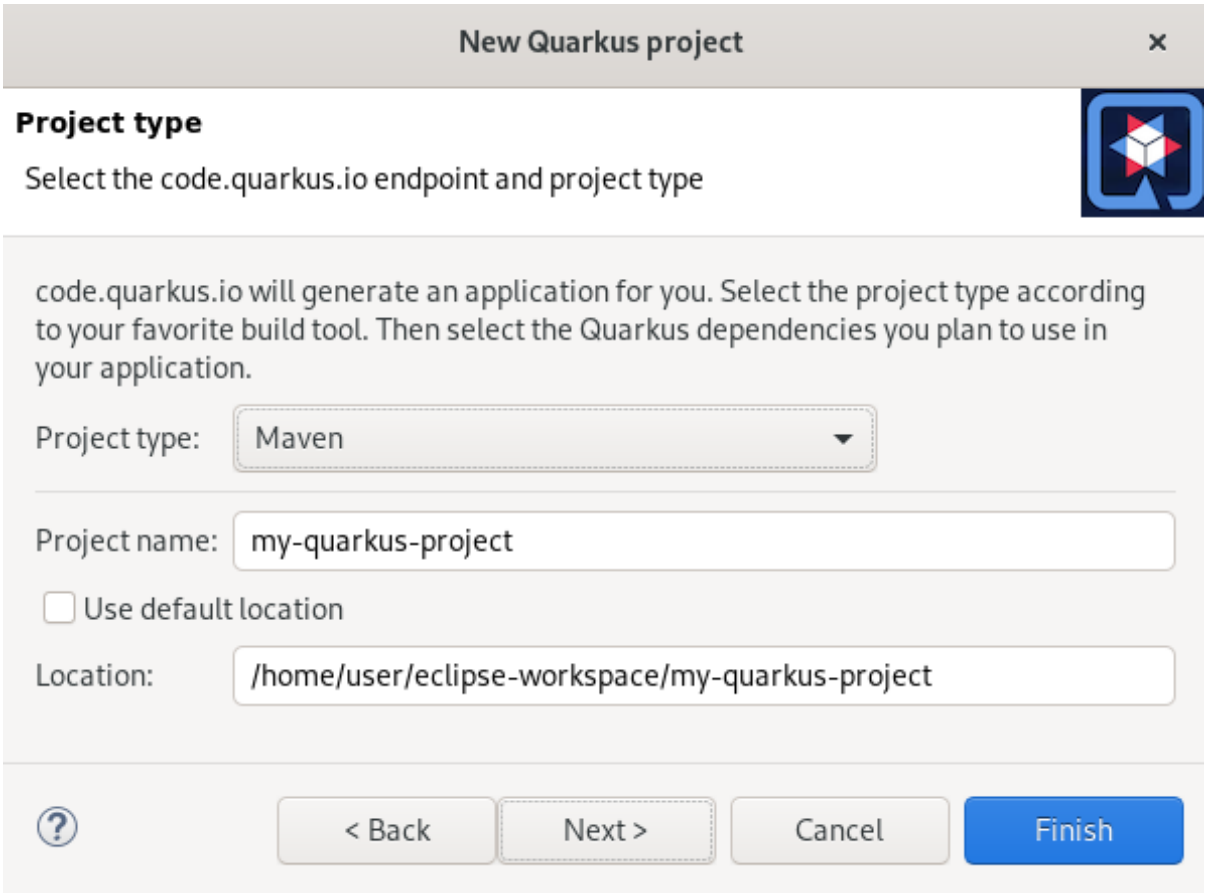
The following section describes how to create a new Quarkus project in CodeReady Studio.

Procedure

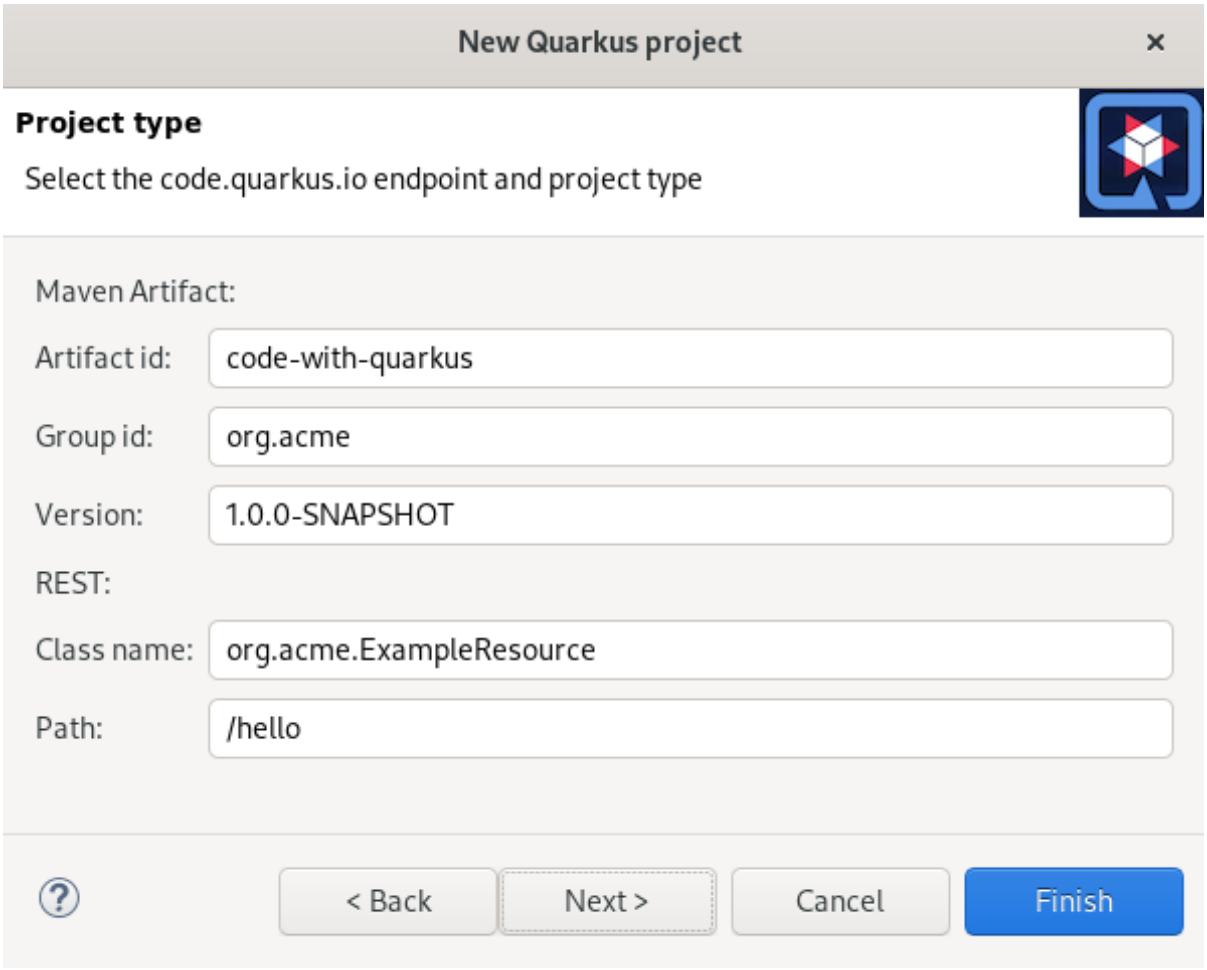
1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



3. Enter **Quarkus** in the search field.
4. Select **Quarkus Project**.
5. Click **Next**.
   The **New Quarkus project** window appears.

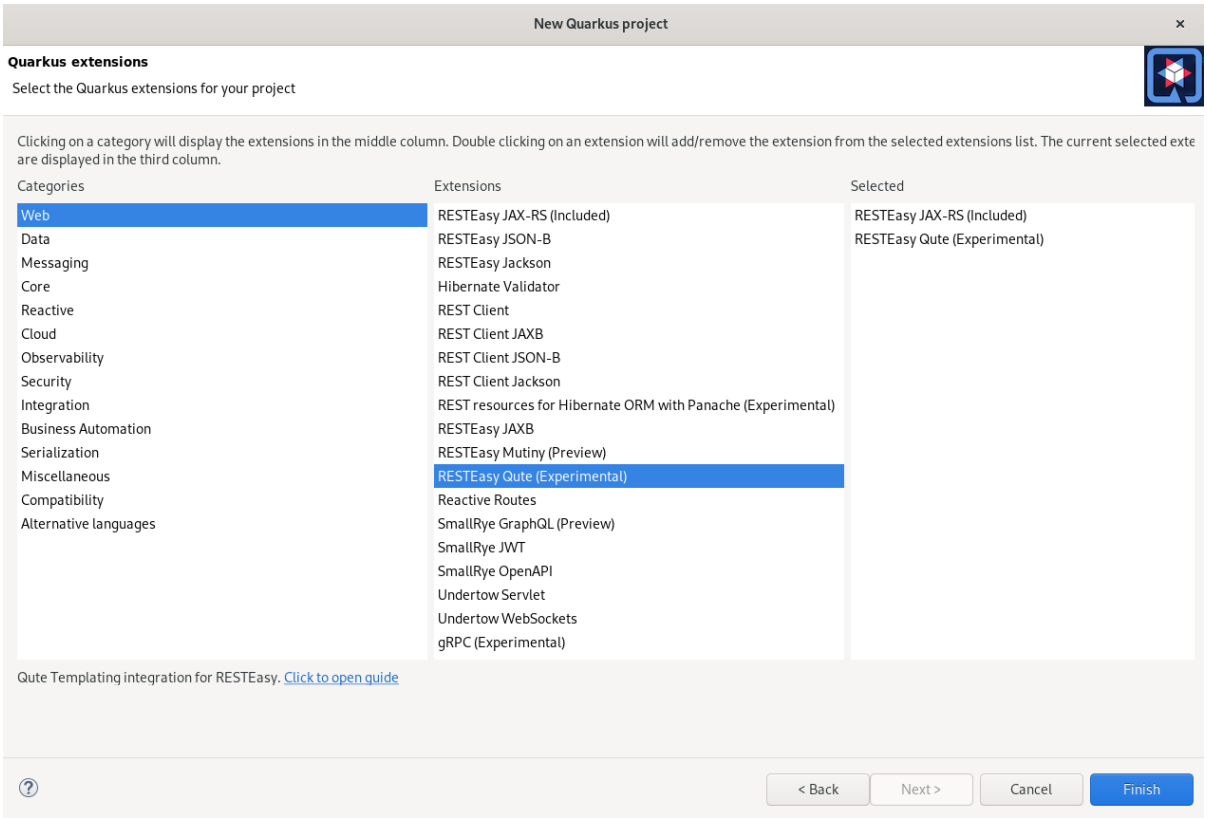


6. Select the needed project type.
7. Name your project.
8. Select the location for your project.
9. Click **Next**.
   The **Project type** window appears.



10. Ensure that the default values are correct.

11. Click **Next**.
The **Quarkus extensions** window appears.



12. Select the needed **Categories** for your projects.
    The available extensions of the selected category are displayed in the **Extensions** column.

13. Select the needed **Extensions** for your projects.
    Double-click on the extension to select or deselect it. The selected extensions appear in the **Selected** column.

14. Click **Finish**.

Your newly created Quarkus project is now listed in the **Project Explorer** view.

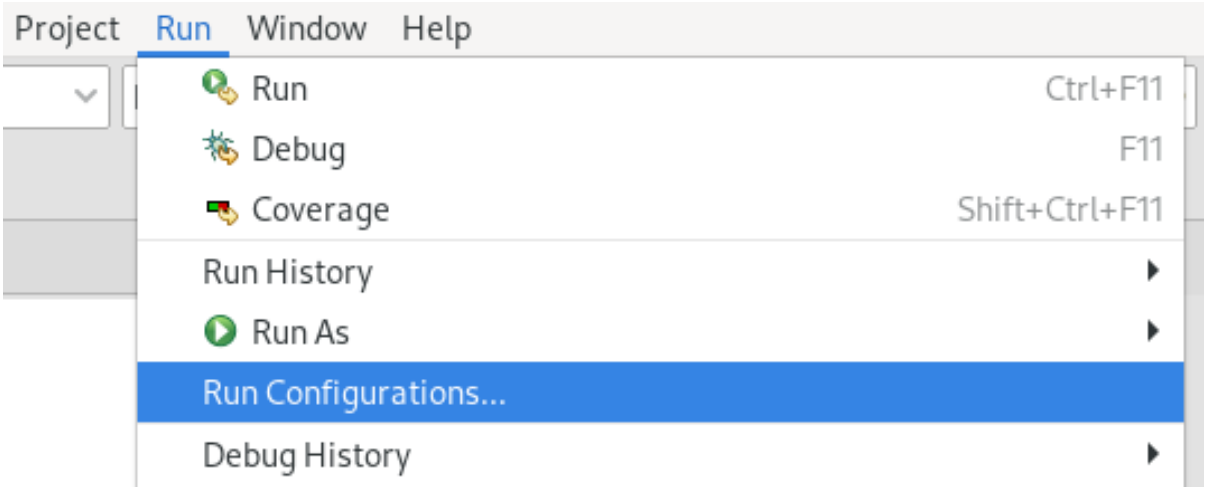
6.2. RUNNING A QUARKUS APPLICATION

The following section describes how to run a Quarkus application in CodeReady Studio.

Procedure

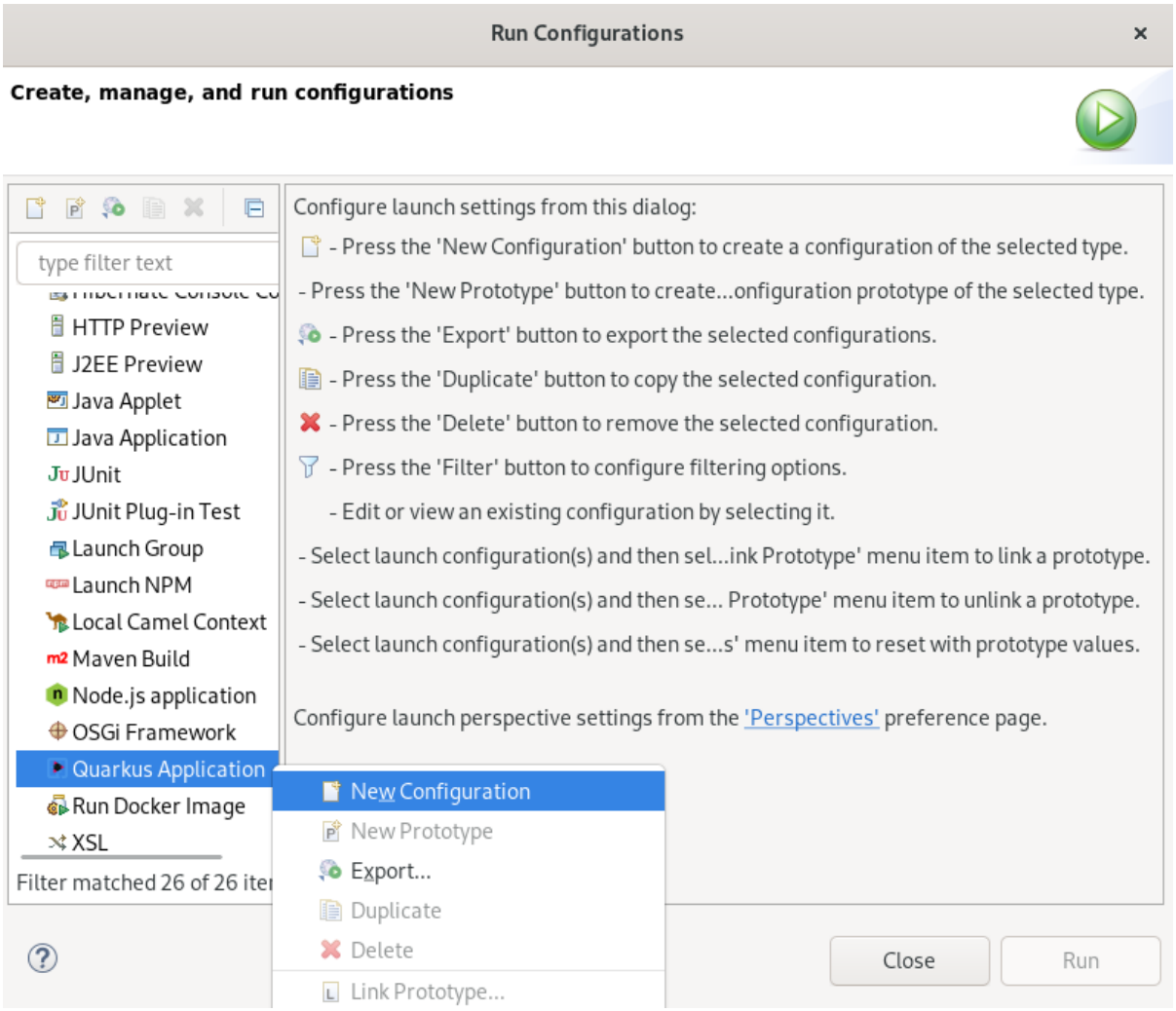
1. Start CodeReady Studio.

2. Click **Run → Run Configurations**.

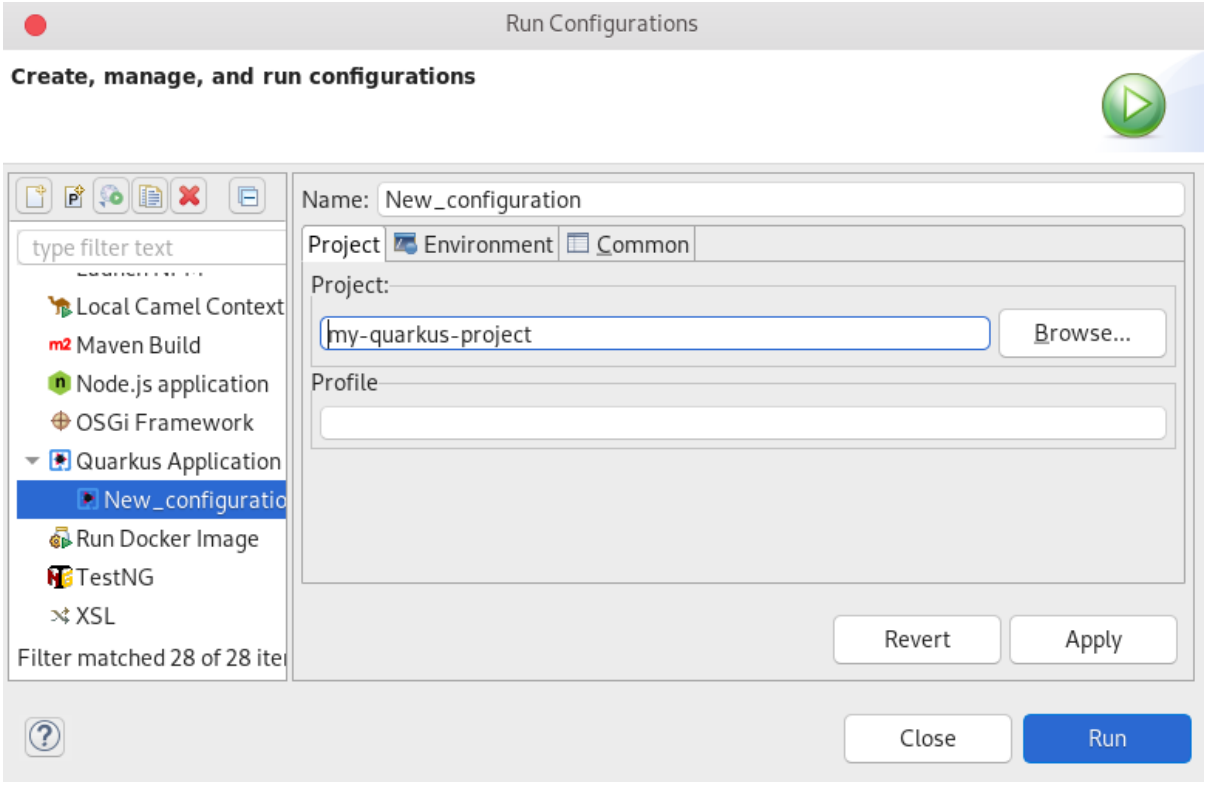


   The **Run Configurations** window appears.

3. Scroll down to **Quarkus Application**.



4. Right-click **Quarkus Application → New Configuration**.

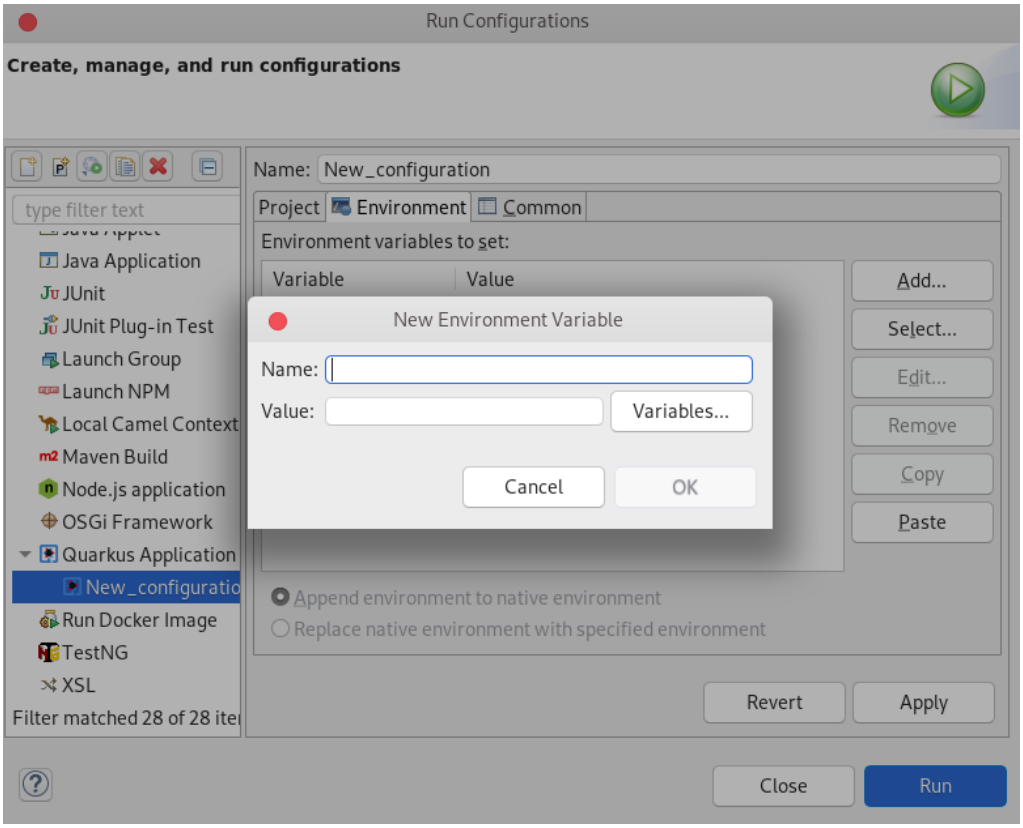


5. Name your configuration.

6. Click **Browse** to locate your project.

NOTE

It is possible to add environment variables to your Quarkus project. To add a new environment variable, click **Environment → add** and select a name and value.



7. Click **Apply**.

8. Click **Run**.
   The **Console** view appears.

Your application will start after the built process.

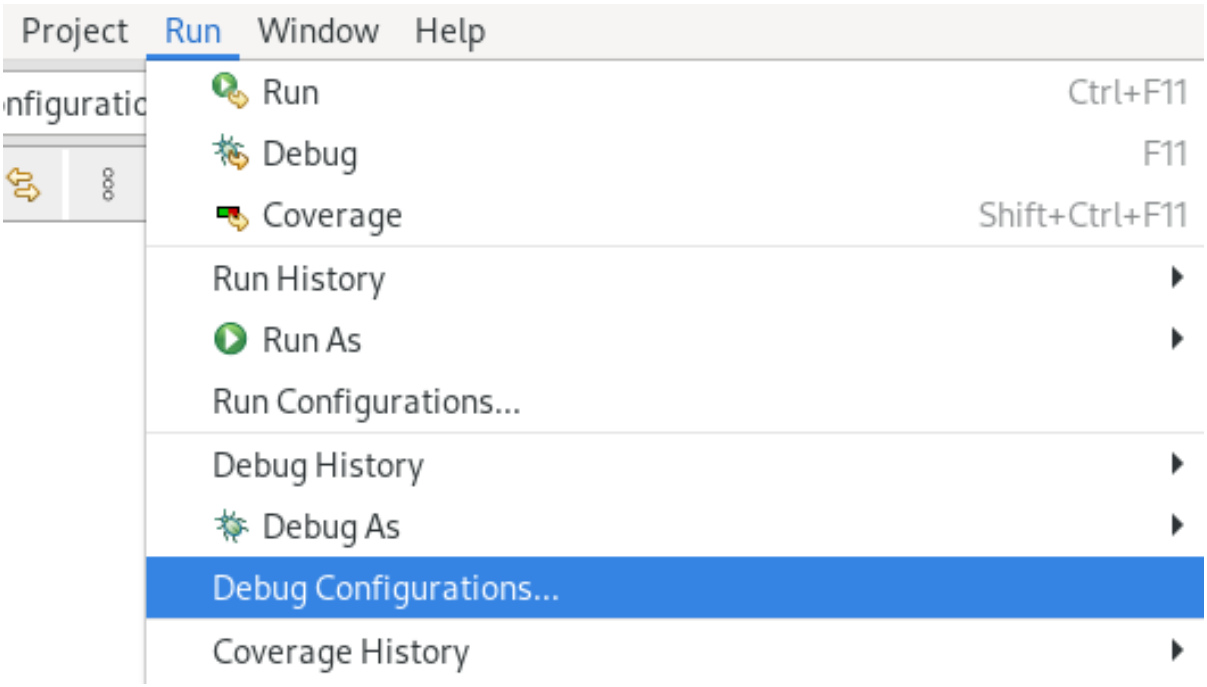
6.3. DEBUGGING A QUARKUS APPLICATION

The following section describes how to debug a Quarkus application in CodeReady Studio.

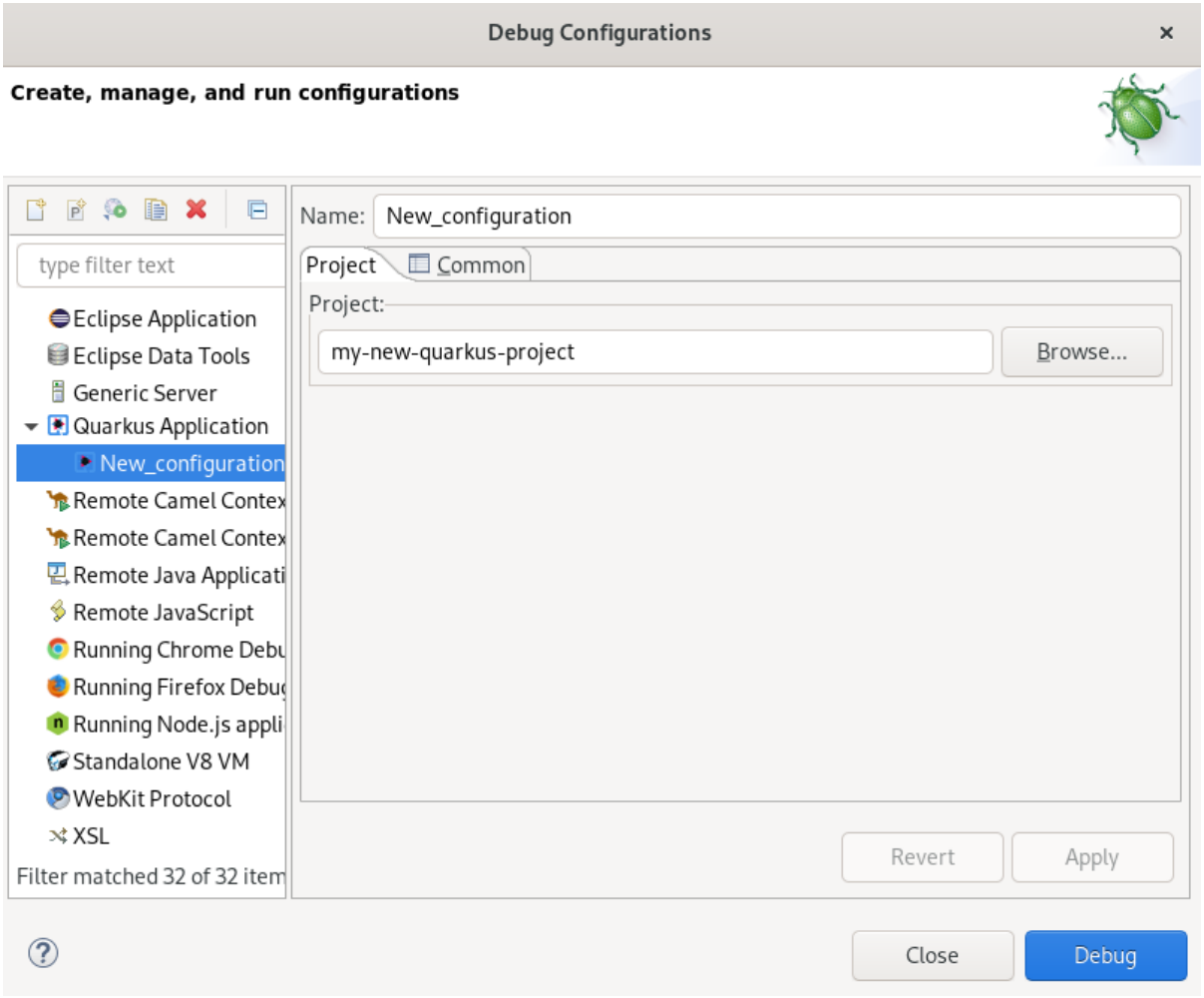
Procedure

1. Start CodeReady Studio.

2. Click **Run → Debug Configurations**.



The **Debug Configurations** window appears.



3. Expand **Quarkus Application**.
4. Select your configuration.
5. Click **Debug**.

The **Console** view appears.

Your Quarkus application starts and connects to a remote JVM debug configuration. If you set breakpoints in your application source files, the execution automatically stops after reaching the breakpoint.

6.4. USING LANGUAGE SUPPORT IN CODEREADY STUDIO

Every Quarkus application is configured through an **application.properties** configuration file. The content of this configuration file is dependent on the set of Quarkus extensions that your application is using.

Quarkus Tools includes content assist, which provides code completion, validation, and documentation. Code completion allows you to quickly complete statements in your code. Multiple choices are available to you via popups. This language support is now available for Kubernetes, OpenShift, S2i, Docker properties, MicroProfile REST Client properties, and MicroProfile Health artifacts.
Note that language support for MicroProfile REST Client properties needs to be enabled separately. For more information, see Section 6.4.2, "Enabling language support for MicroProfile REST Client properties".

6.4.1. Using Quarkus content assist

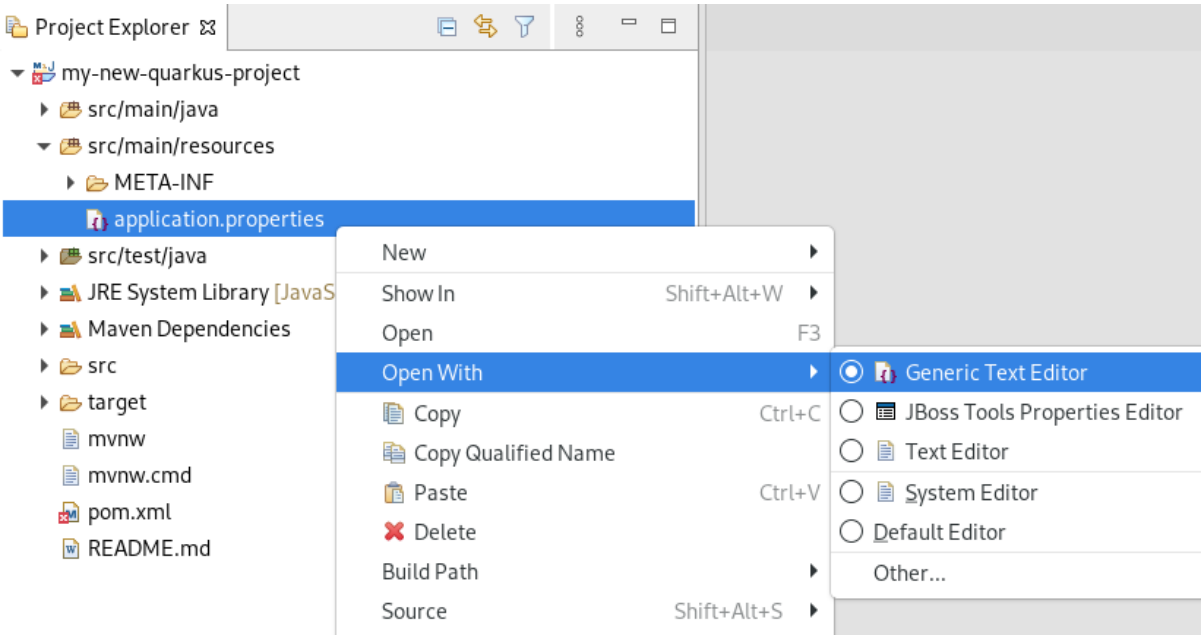
The following section describes how to use Quarkus **application.properties** content assist in CodeReady Studio.

Prerequisites

- An existing Quarkus project.
  For more information on how to create a Quarkus project, see Section 6.1, "Creating a new Quarkus project".

Procedure

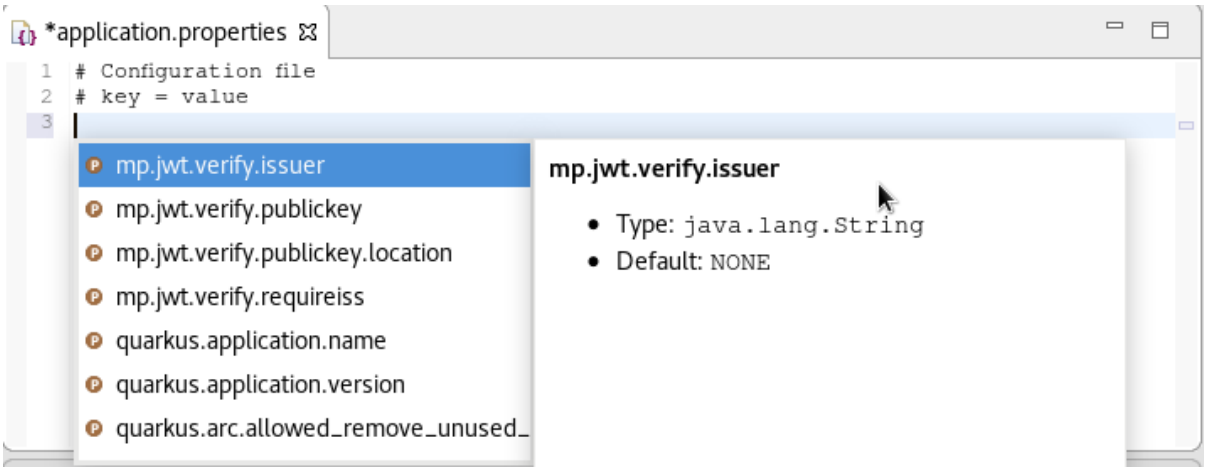
1. Start CodeReady Studio.
2. Start **Project Explorer**.
3. Expand your **Quarkus project → src/main/resources**.
4. Right-click **application.properties → Open With → Generic Text Editor**.



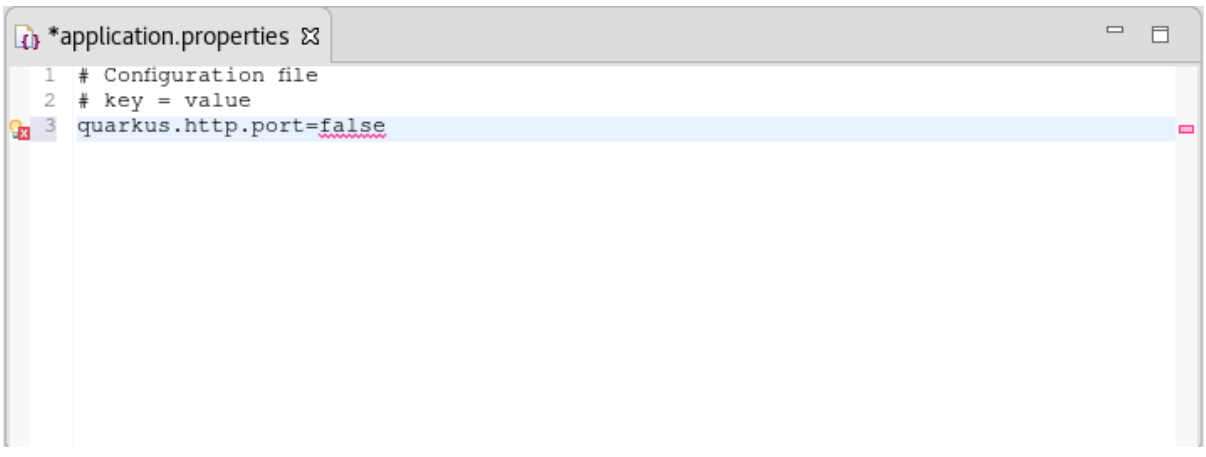
The **Generic Text Editor** window appears.

5. Navigate to an empty line.

6. Press **Ctrl**+**Space** to invoke code completion.
The code completion suggestions appear. Hover the mouse over the suggestions to display documentation.



If you enter a wrong value, the editor underlines the error with a red wavy line.



Additional resources

- Language support for MicroProfile REST Client properties needs to be enabled separately. For more information, see Section 6.4.2, "Enabling language support for MicroProfile REST Client properties".

6.4.2. Enabling language support for MicroProfile REST Client properties

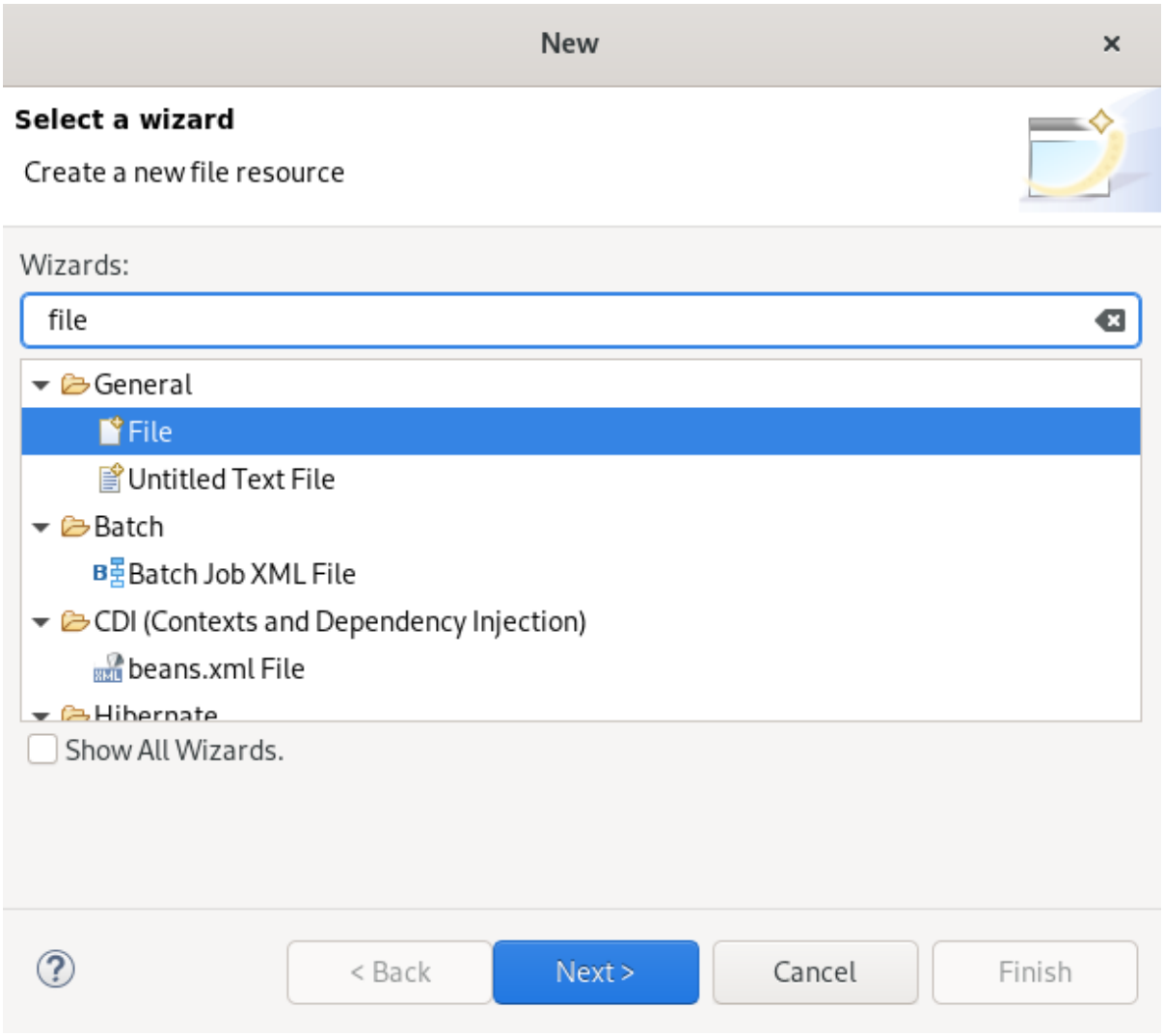
The following section describes how to enable language support for MicroProfile REST Client properties.

Prerequisites

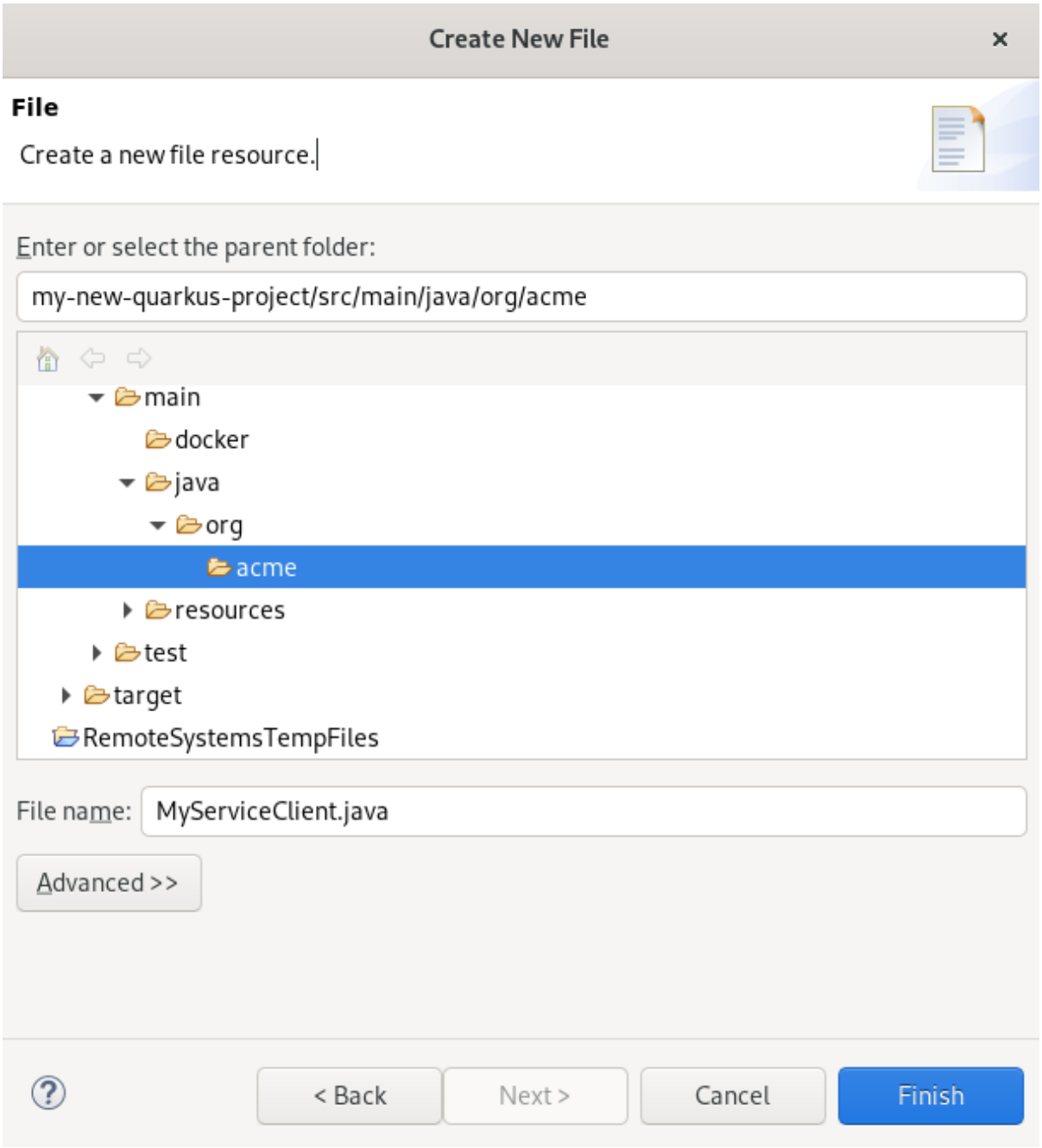
- An existing Quarkus project.
  For more information on how to create a Quarkus project, see Section 6.1, "Creating a new Quarkus project".

Procedure

1. Start CodeReady Studio.
2. Start **Project Explorer**.
3. Expand your **Quarkus project → src/main/java**.
4. Right-click **org.acme → New → Other**.
   The **Select wizard** window appears.



5. Enter **file** in the search field.
6. Select **File**.
7. Click **Next**.
   The **Create a new file resource**window appears.



8. Name your new file.
9. Click **Finish**.
10. Paste the following content into your newly created file:

```
package org.acme;

import javax.ws.rs.GET;
import javax.ws.rs.Path;
import javax.ws.rs.core.Response;

import org.eclipse.microprofile.rest.client.inject.RegisterRestClient;

@RegisterRestClient
public interface MyServiceClient {
 @GET
```

```
    ("/greet")
    Response greet();
}
```

11. Press **Ctrl**+**S** to save the changes.

Additional resources

- For more information on how to use language support, see Section 6.4.1, “Using Quarkus content assist”.
- For information on adjusting language support, see Quarkus - Using the REST client, Create the interface.

CHAPTER 7. HIBERNATE TOOLS BASICS IN CODEREADY STUDIO

Hibernate Tools is a collection of tools for projects related to Hibernate version 5 and earlier. The tools provide Eclipse plugins for reverse engineering, code generation, visualization, and interaction with Hibernate.

7.1. CREATING A NEW JPA PROJECT

The following section describes how to create a new JPA project in CodeReady Studio.

Prerequisites

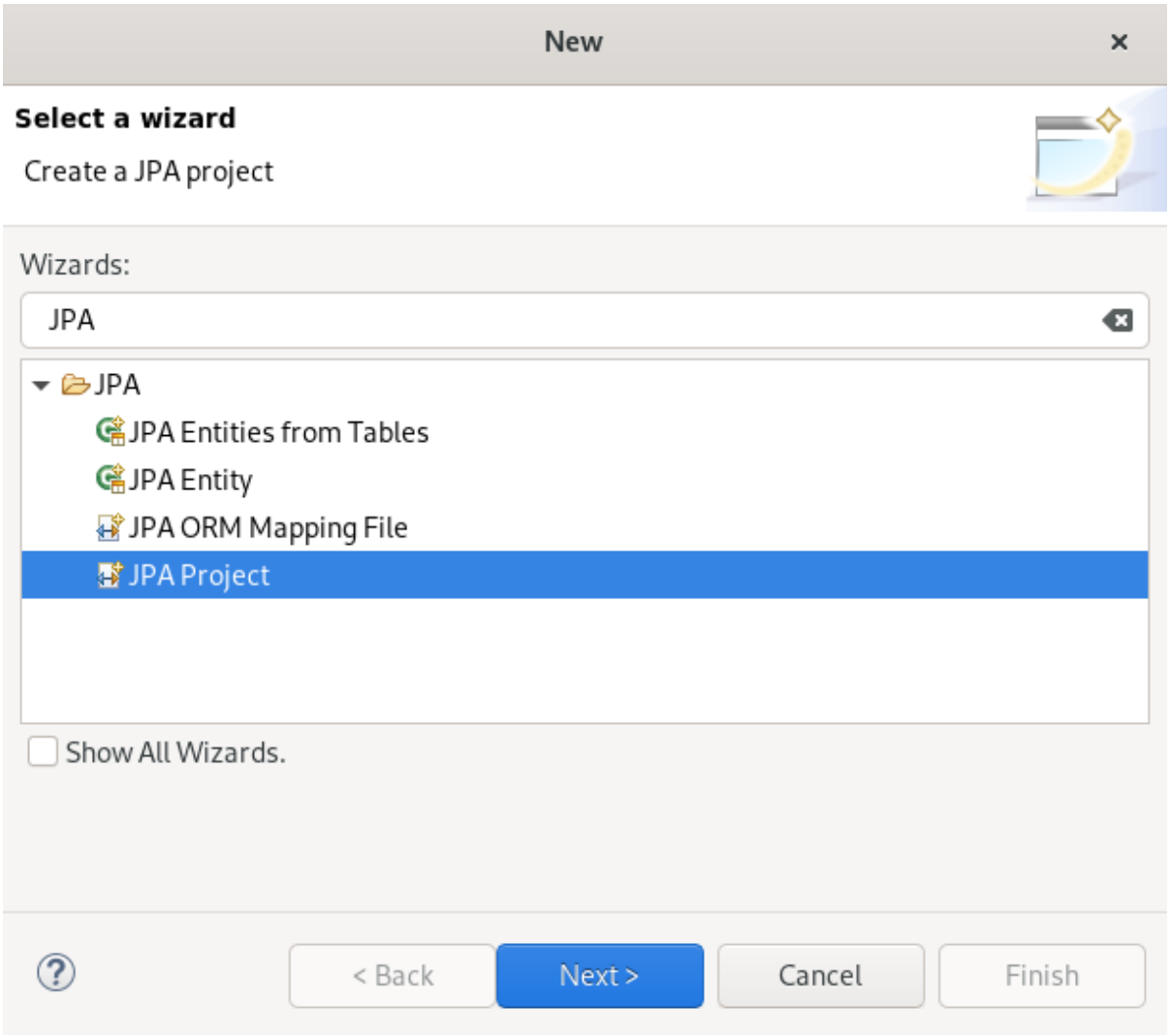
You need to start the Sakila database server before you can create a new JPA project in CodeReady Studio.

1. Download the h2 version of the Sakila database.
2. Navigate to the directory that contains the **runh2.sh** file.
3. Execute the **runh2.sh** file:

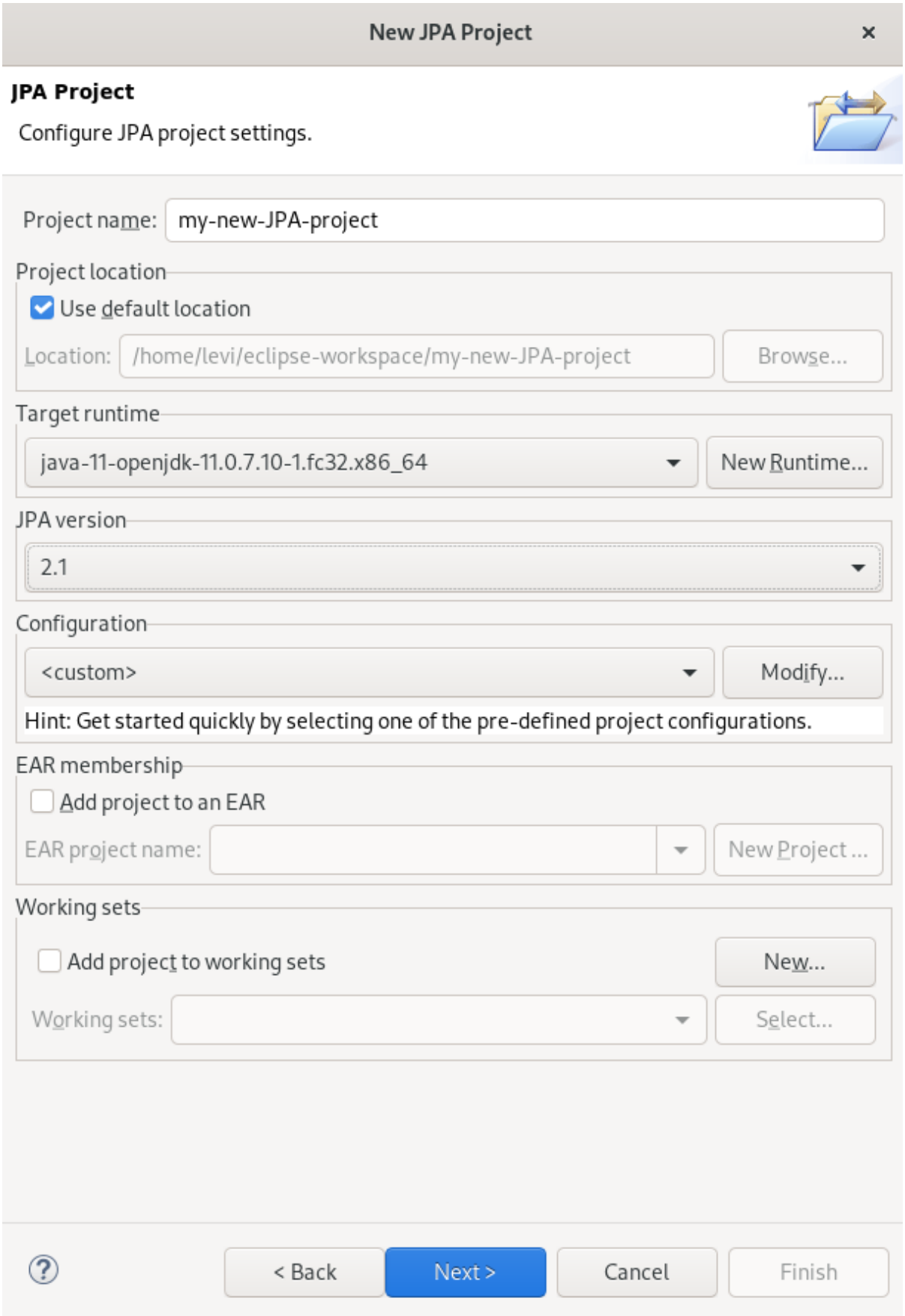
```
$ ./runh2.sh
```

Procedure

1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a Wizard** window appears.

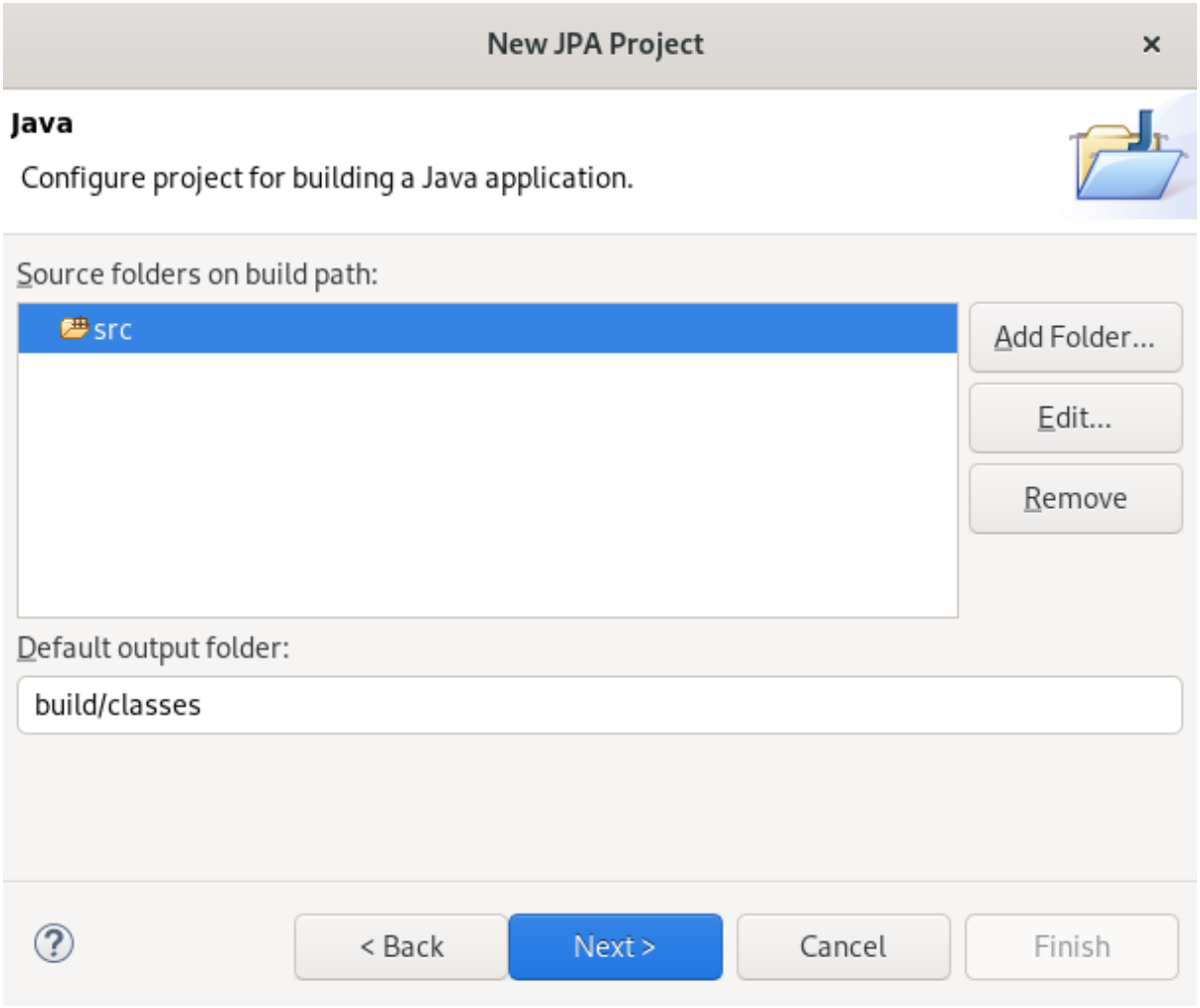


3. Enter **JPA** in the search field.
4. Select **JPA Project**.
5. Click **Next**.
   The **New JPA Project** window appears.

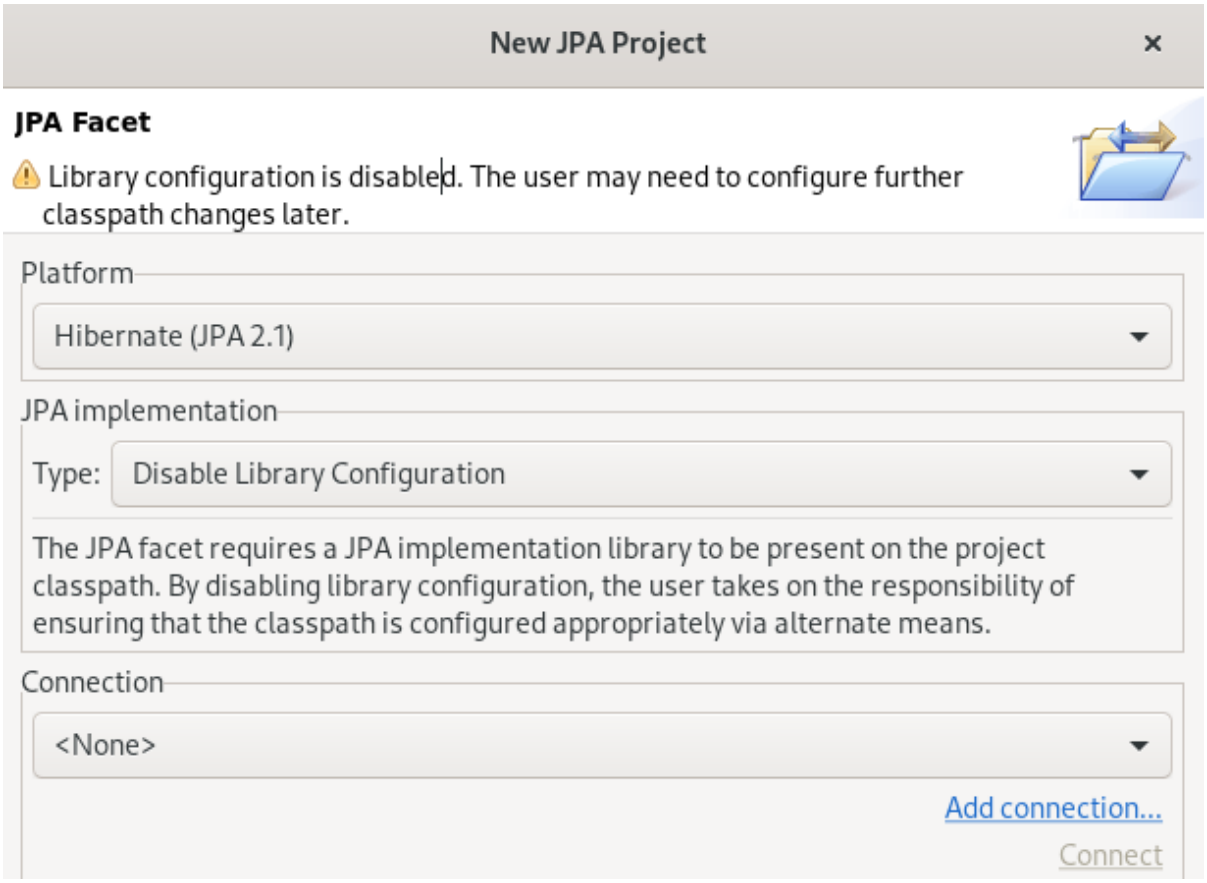


6. Name your project.
7. Select the location for your project.
8. Click the down-arrow in the **Target runtime** field to select the runtime server.

9. Set the **JPA version** to 2.1.
10. Click **Next**.
    The **Java** window appears.



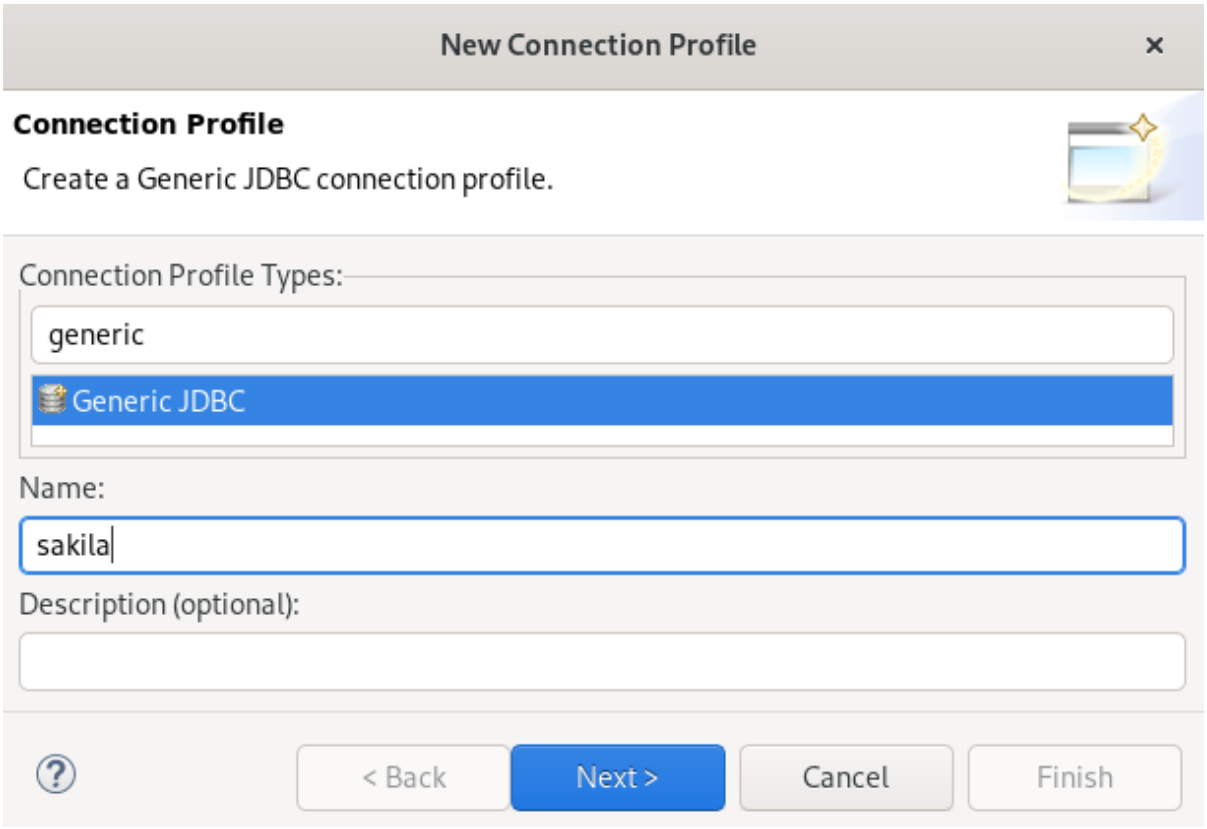
11. Select the source folder.
12. Click **Next**.
    The **JPA Facet** window appears.



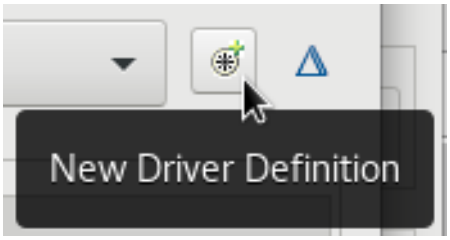
13. Click the down-arrow in the **Platform** field and select **Hibernate (JPA 2.1)**.

14. Add user libraries or set the **JPA Implementation Type** to **Disable Library Configuration**. For more information on how to set up user libraries, see Section 7.2, "Adding libraries".

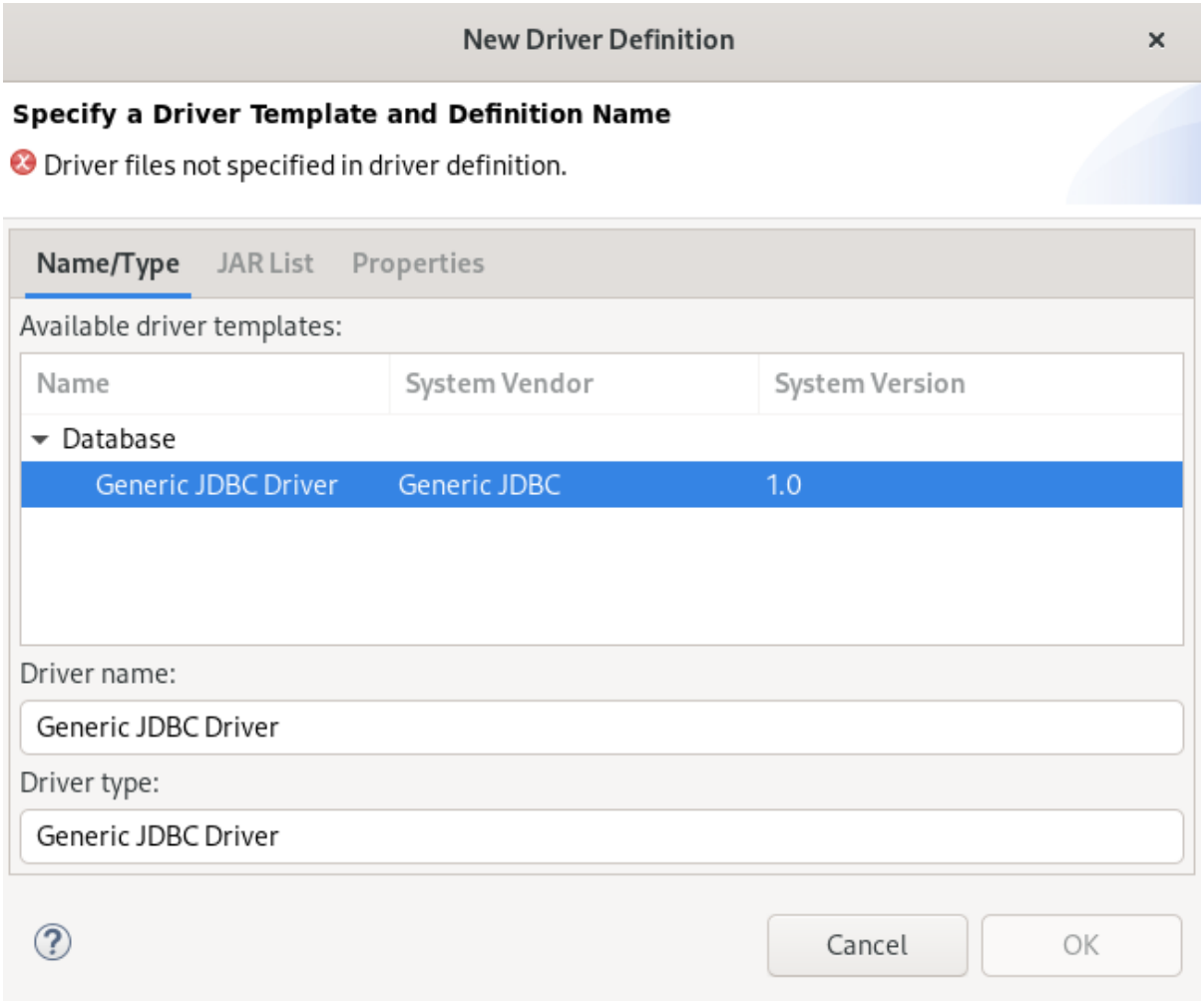
15. Click **Add connection**.
The **Connection Profile** window appears.



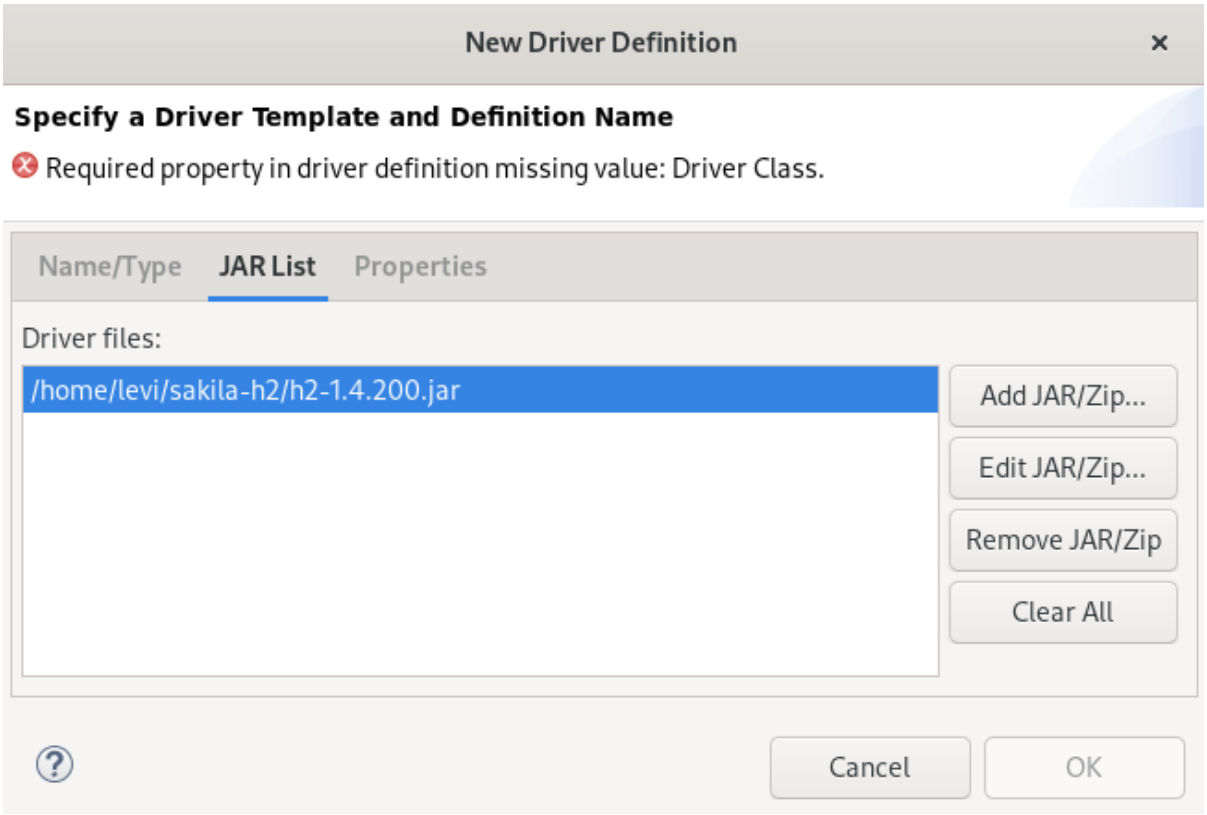
16. Enter **Generic** in the search field.
17. Select **Generic JDBC**.
18. Enter **Sakila** in the **Name** field.
19. Click **Next**.
    The **Specify a Driver and Connection Details** window appears.
20. Click the **New Driver Definition** icon.



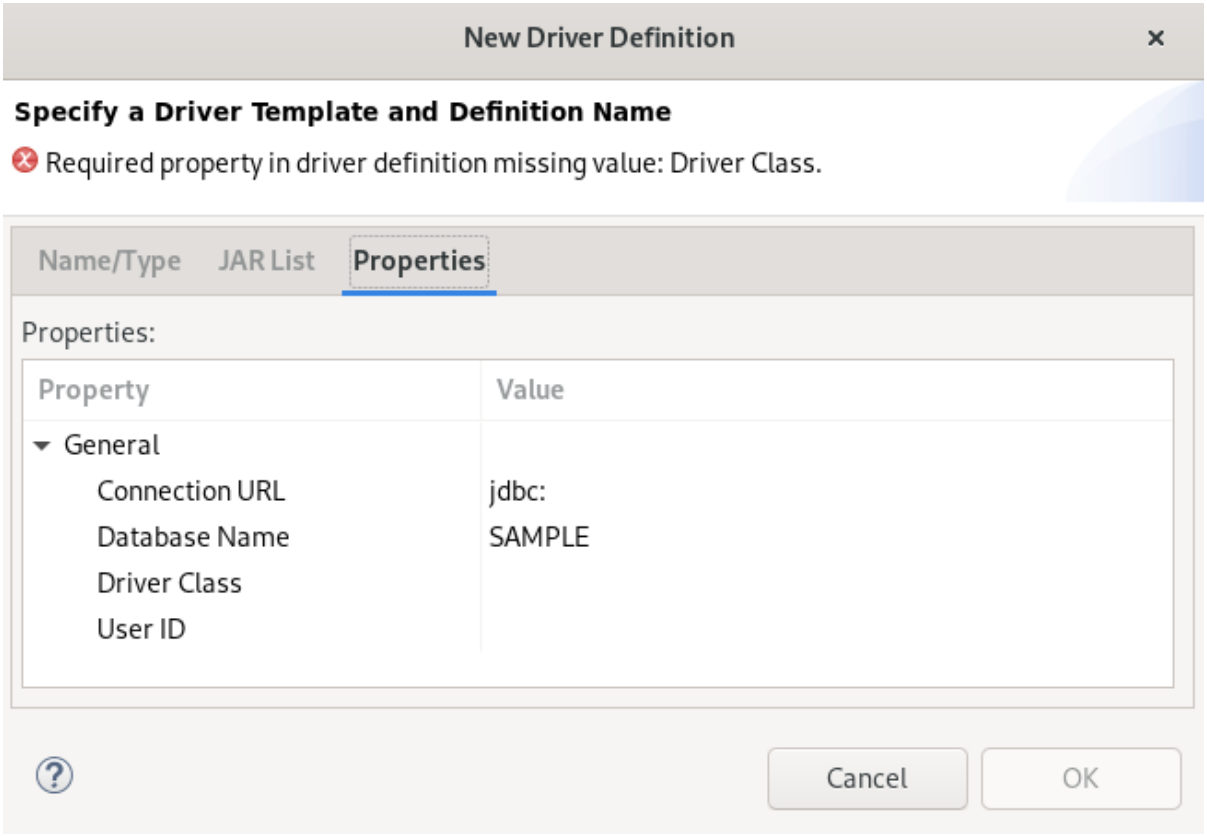
The **New Driver Definition** window appears.



21. Select the **Generic JDBC Driver**.
22. Click the **JAR List** tab.

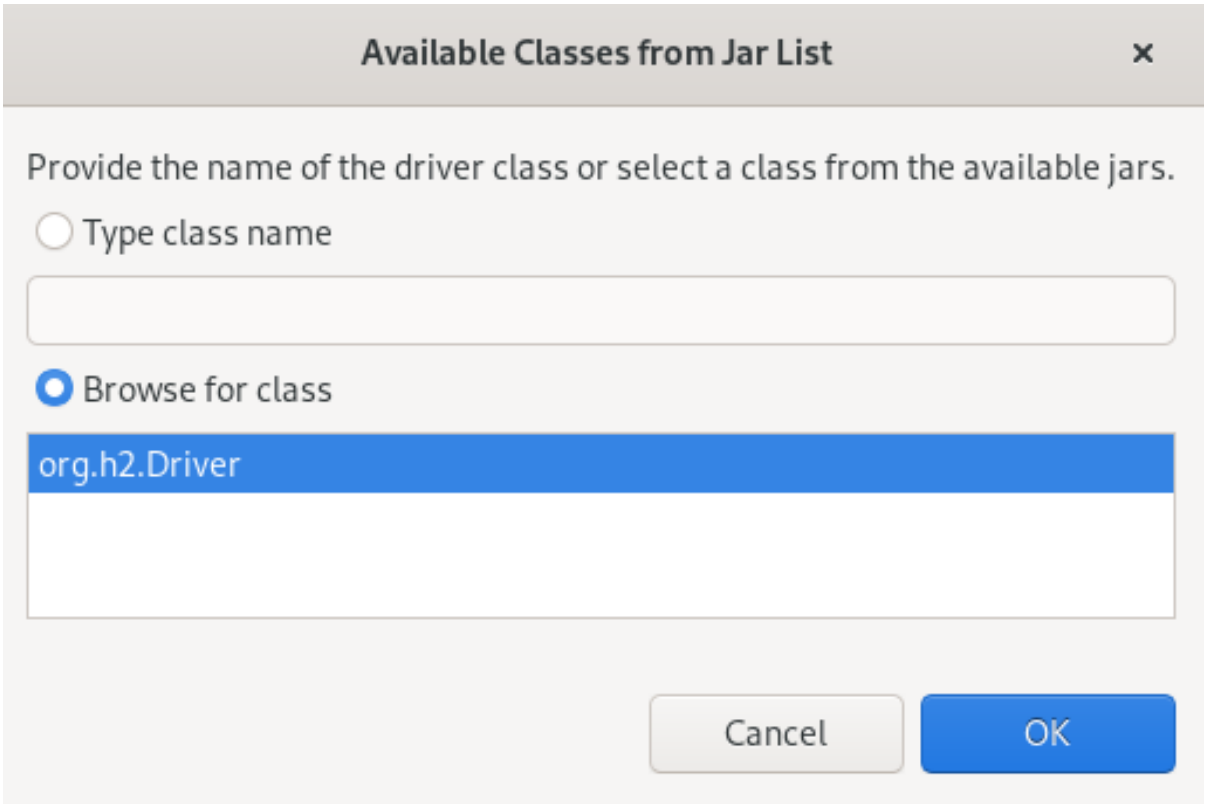


23. Click the **Add JAR/Zip** button.
24. Select the **.jar** file for the Sakila database.
25. Click the **Properties** tab.

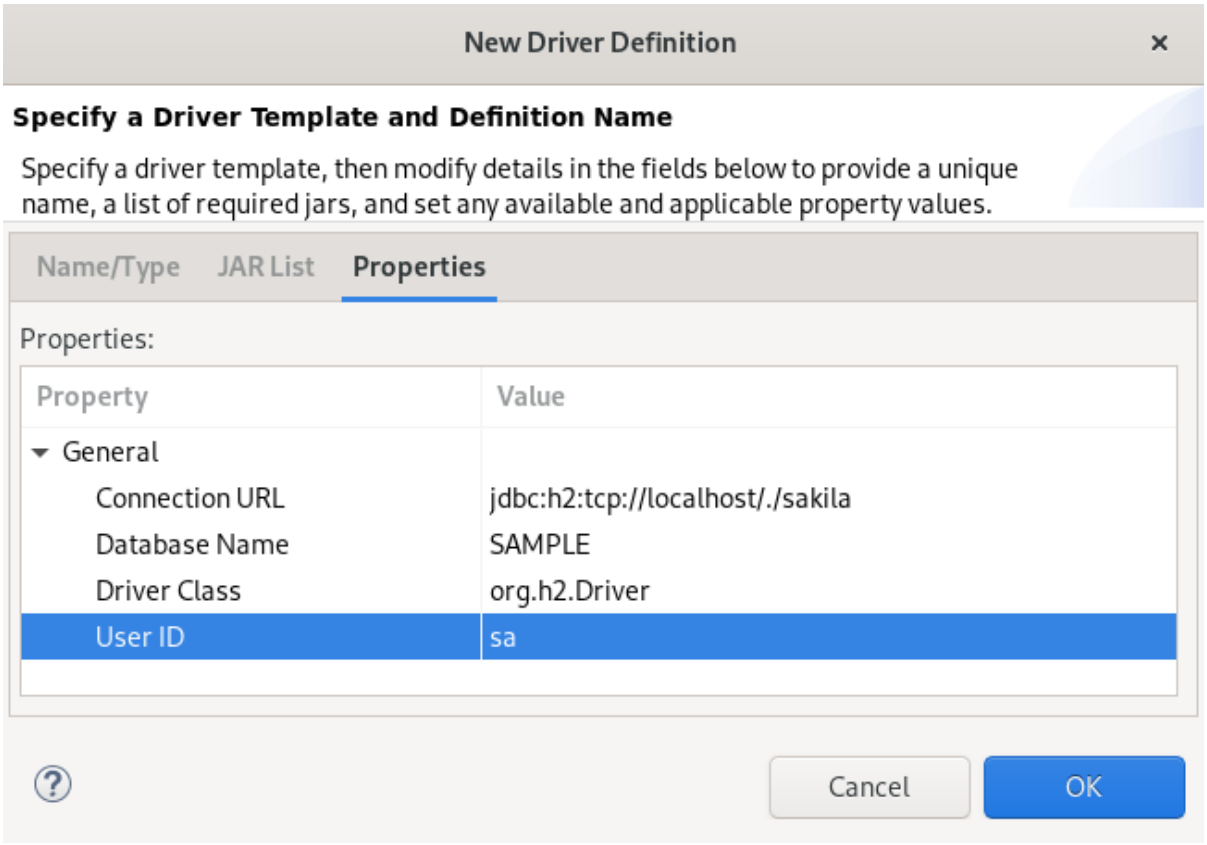


26. Add **jdbc:h2:tcp://localhost/./sakila** to the **Connection URL** field.
27. Click the **Driver Class** field.

28. Click the three dots icon at the end of the **Driver Class** field.
The **Available Classes from Jar List**window appears.



29. Select the **Browse for Class**option.
30. Select **org.h2.Driver**.
31. Click **OK**.
32. Enter **sa** in the **User ID** field.



33. Click **OK → Finish → Finish**.

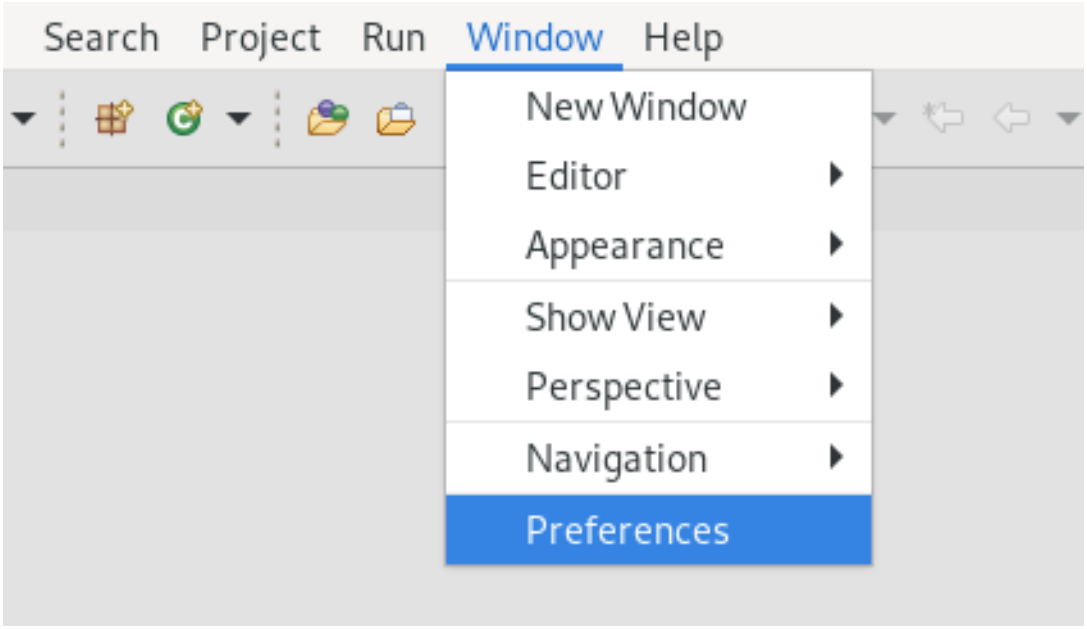
Your newly created JPA project is now listed in the **Project Explorer** view.

7.2. ADDING LIBRARIES

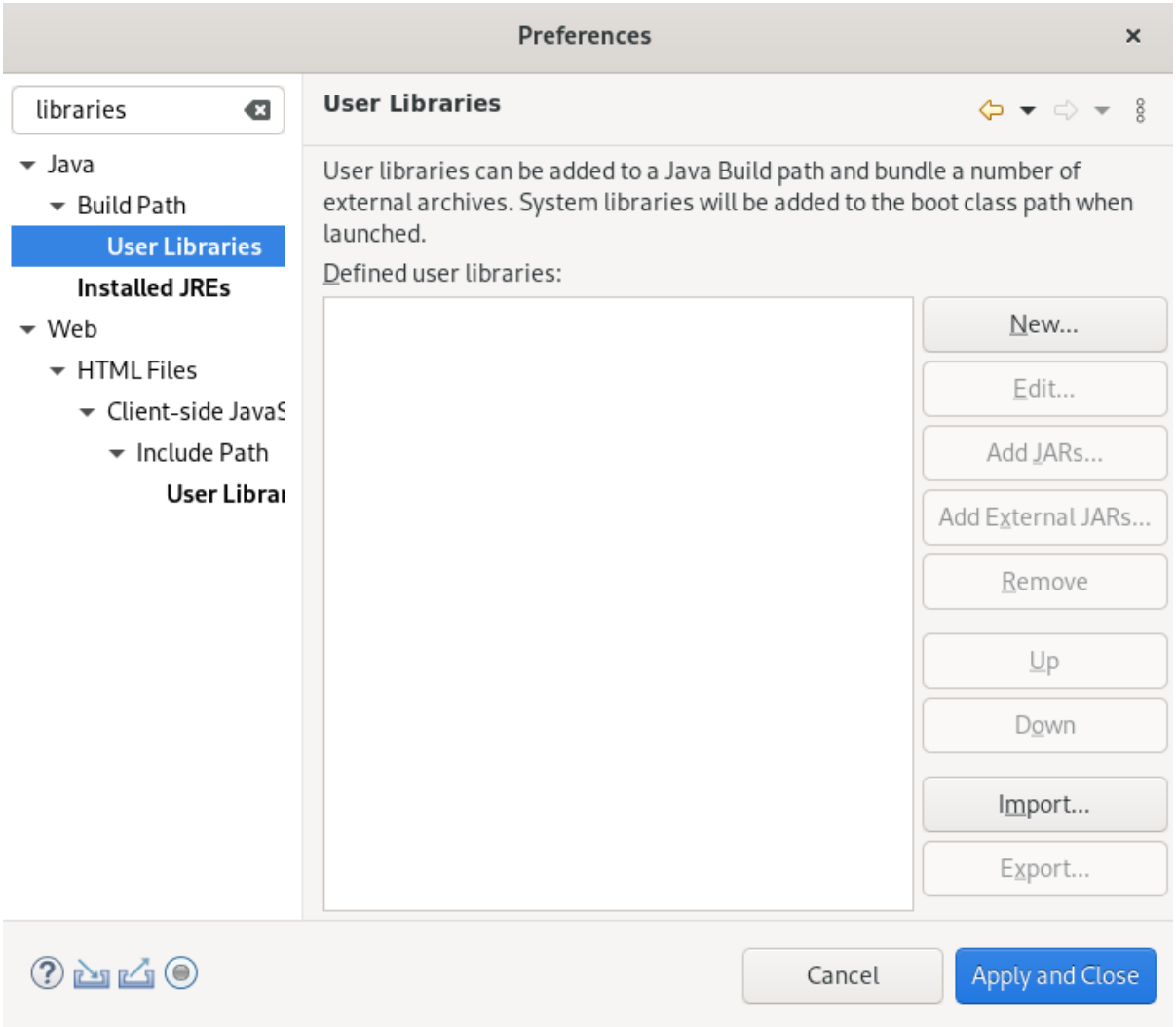
The following section describes how to add libraries to your Hibernate project in CodeReady Studio.

Procedure

1. Download Hibernate ORM.
2. Extract the files.
3. Start CodeReady Studio.
4. Click **Window → Preferences**.



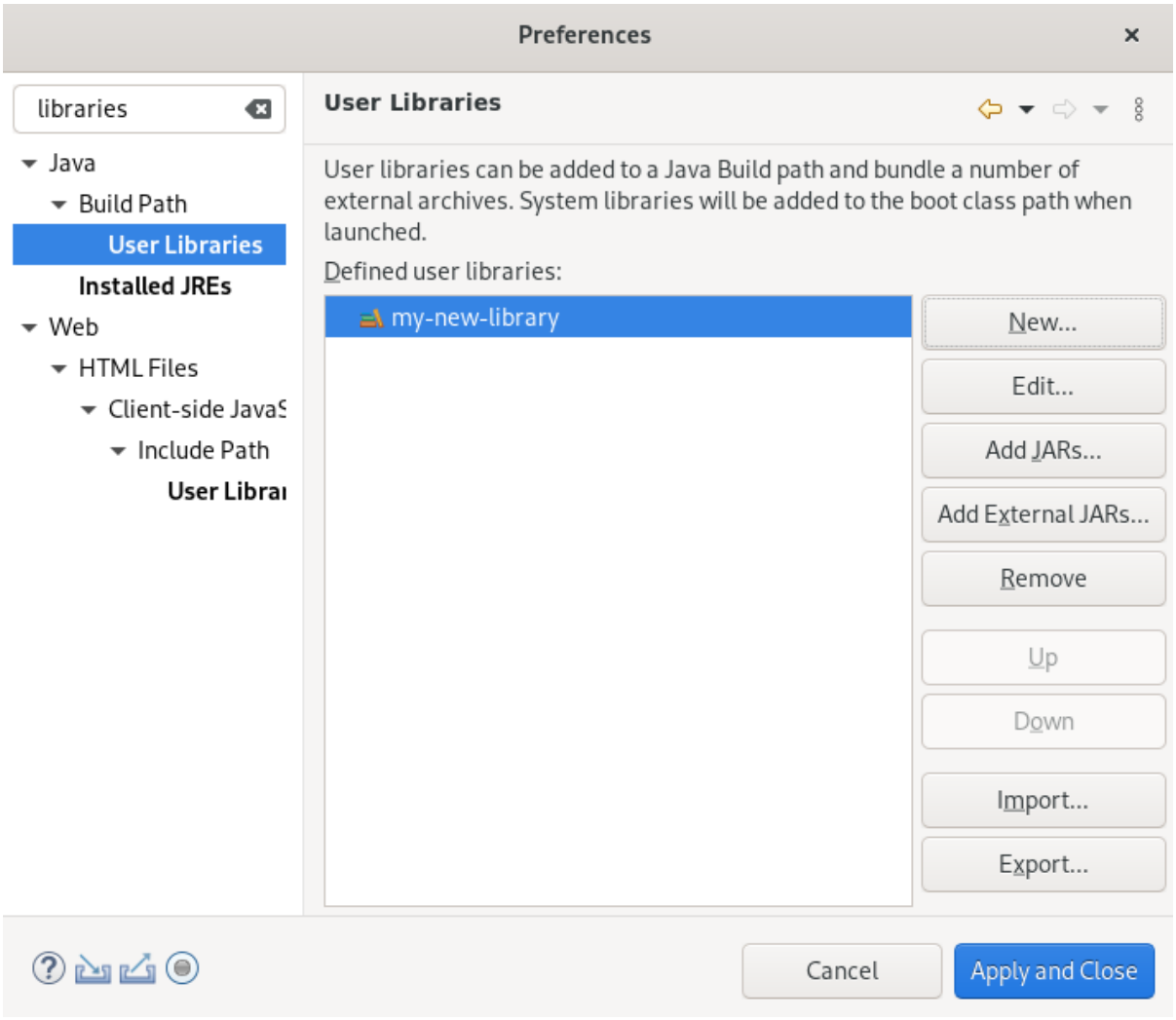
The **Preferences** window appears.



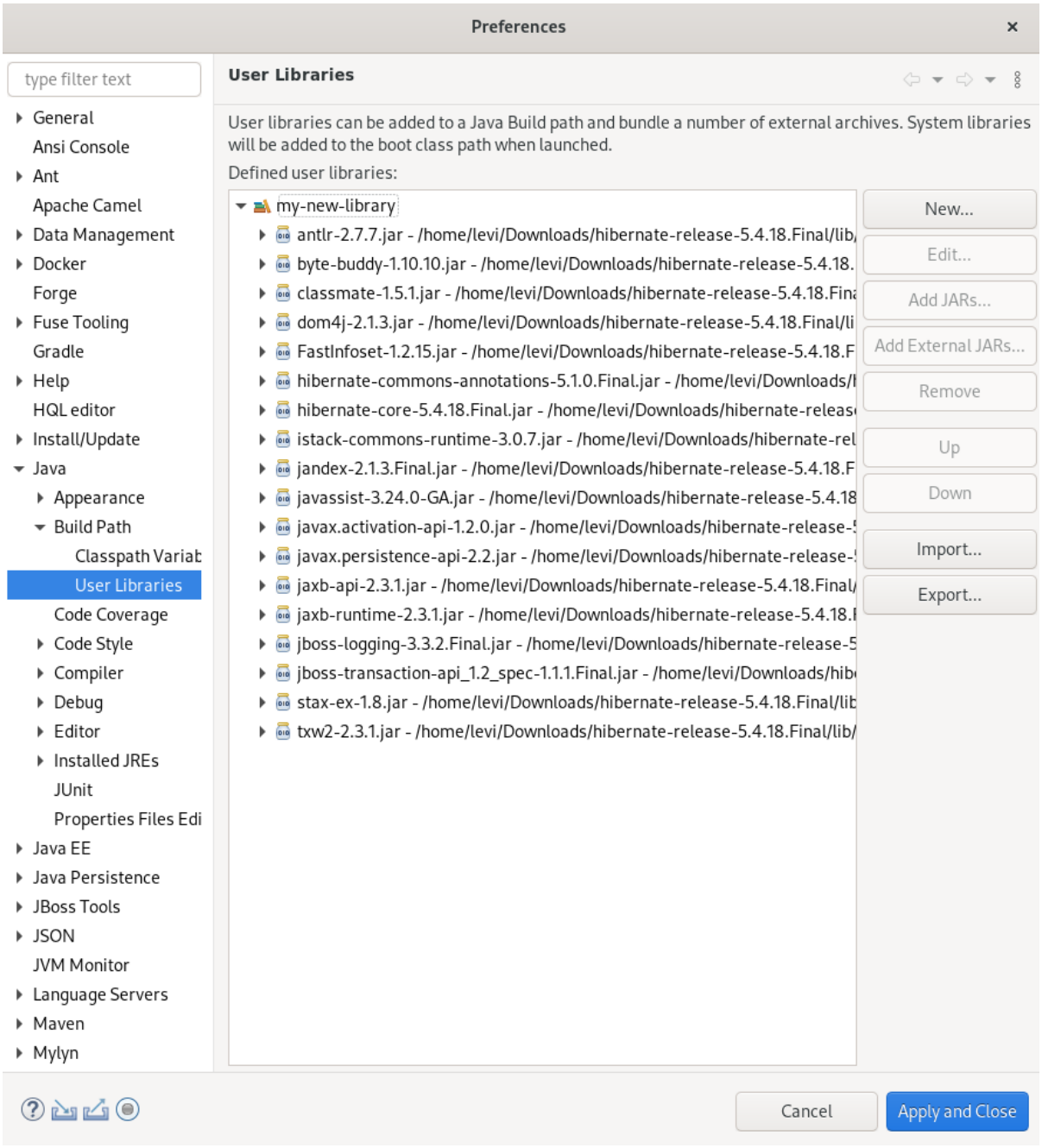
5. Enter **Libraries** in the search field.
6. Select **User Libraries** under **Java**.
7. Click the **New** button.

The **New User Library** window appears.

8. Name your user library.
9. Click **OK**.
10. Select your new user library.



11. Click the **Add External JARs** button.
12. Select the directory you extracted the **Hibernate ORM** files into.
13. Navigate to the /**lib**/**required**/ directory.
14. Select a **.jar** file.
15. Click **Open**.
Your selected **.jar** file appears under your user library.



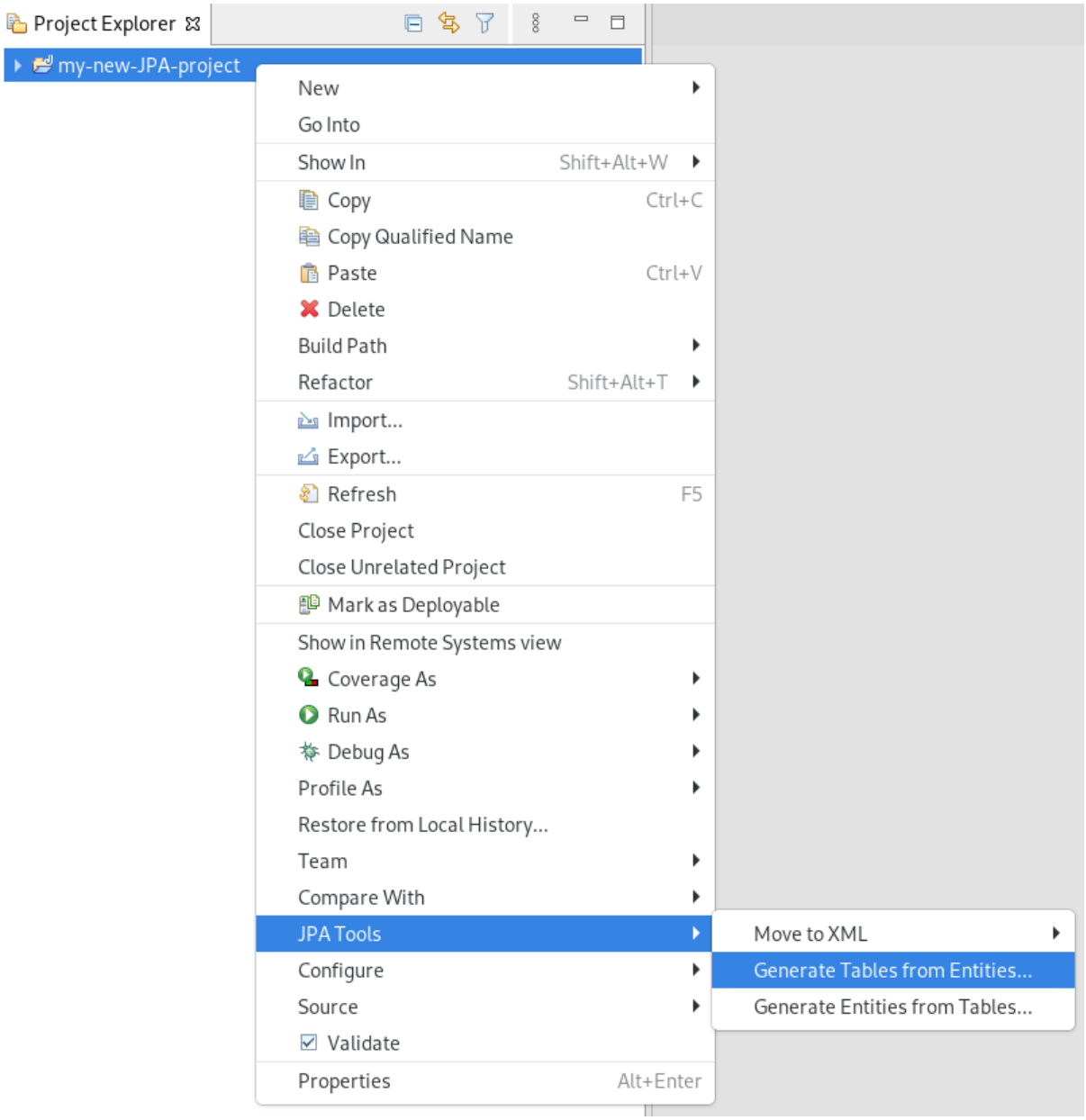
16. Click **Apply and Close**.

7.3. GENERATING TABLES FROM ENTITIES

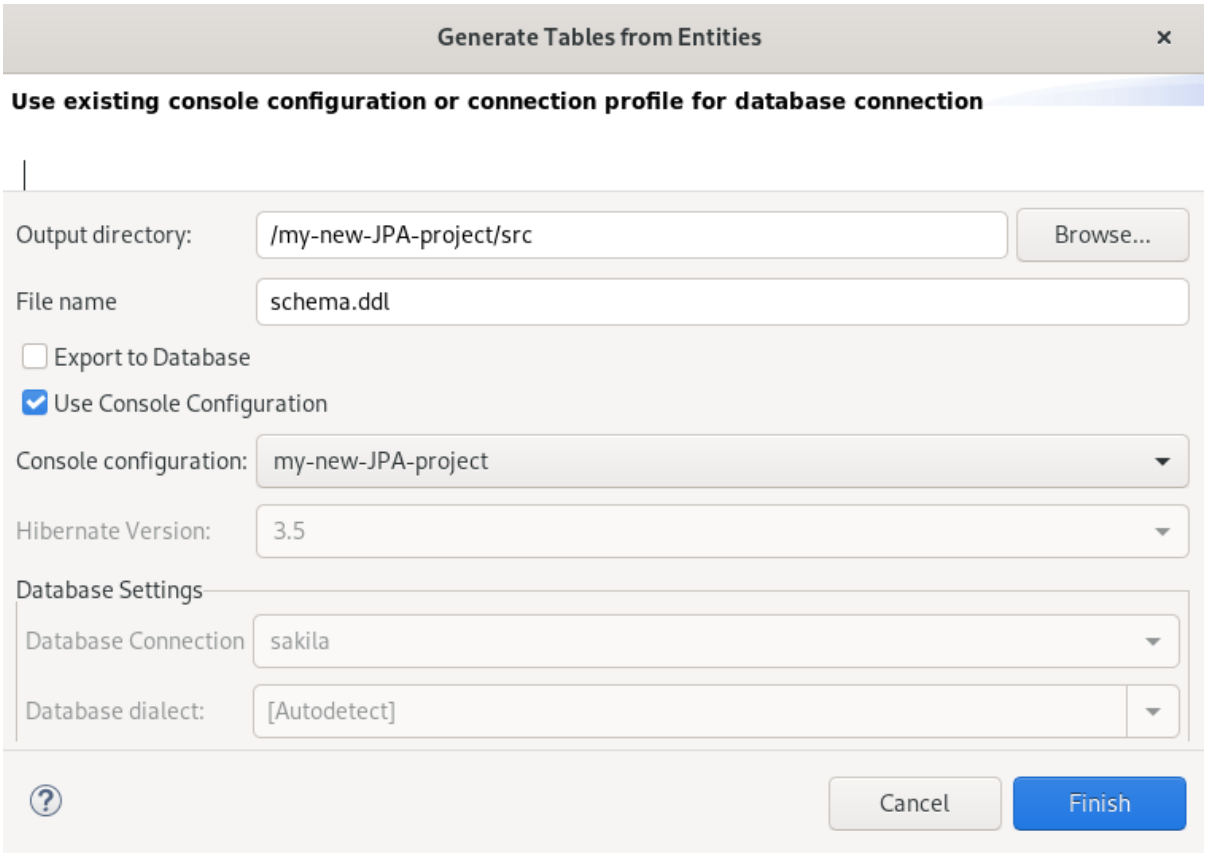
The following section describes how to generate tables from entities for your Hibernate project in CodeReady Studio.

Procedure

1. Start CodeReady Studio.
2. Open **Project Explorer**.
3. Right-click your **JPA project → JPA Tools → Generate Tables from Entities**.



The **Generate Tables from Entities** window appears.



4. Select the **Use Console Configuration** check box.
5. Click **Finish**.

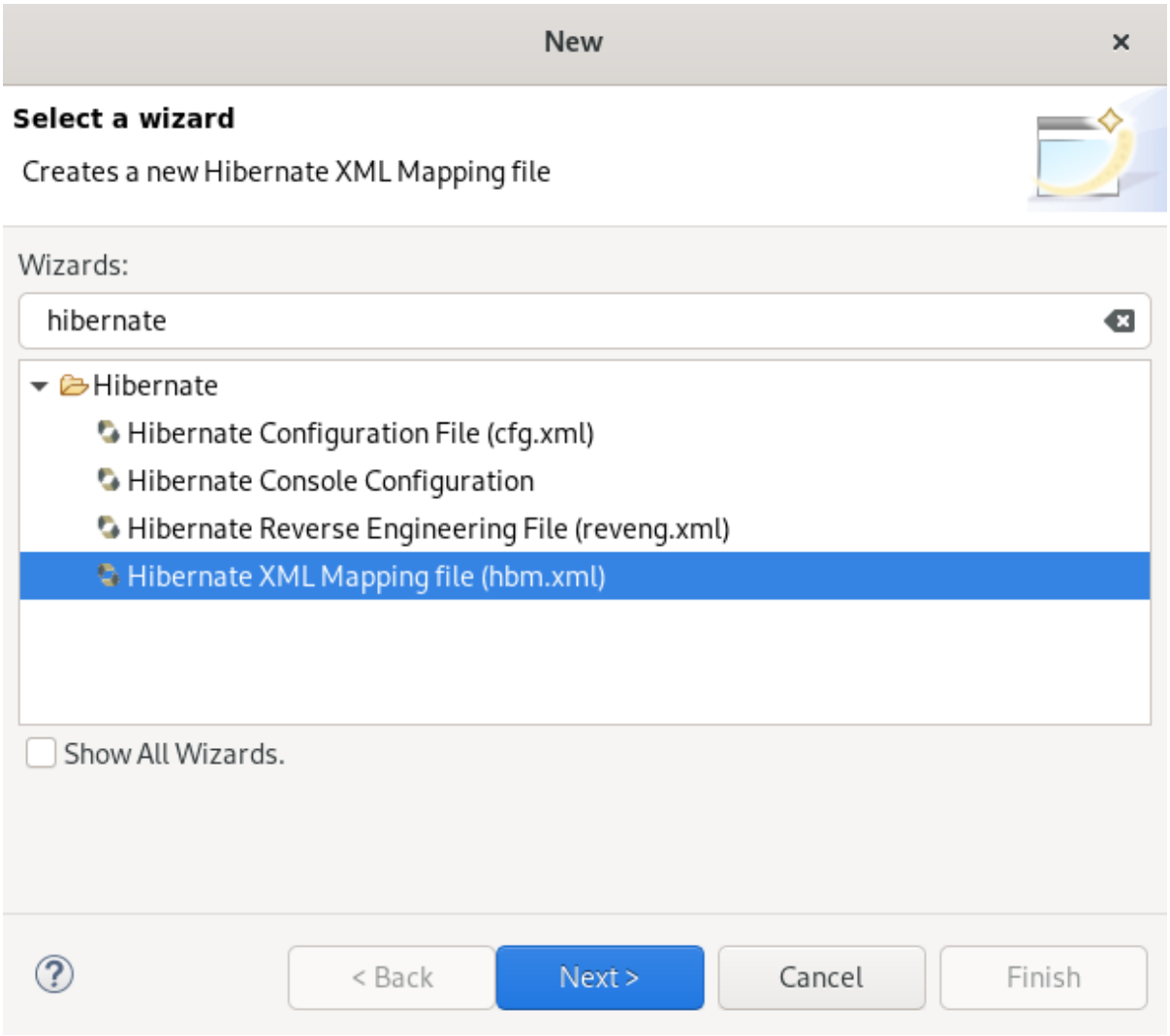
7.4. CREATING A HIBERNATE MAPPING FILE

Hibernate mapping files specify how your objects relate to the database tables.

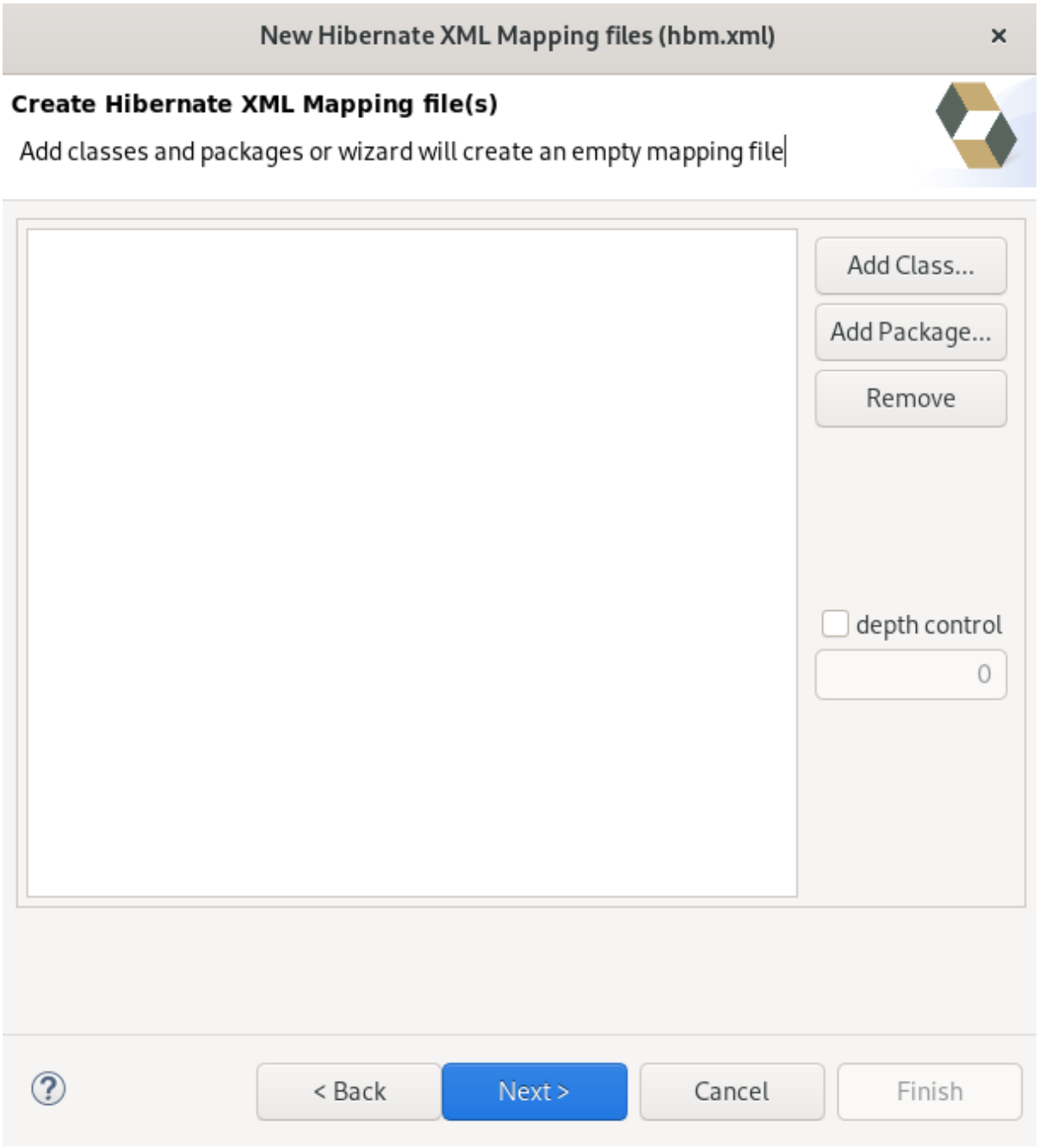
The following section describes how to create a Hibernate mapping file in CodeReady Studio.

Procedure

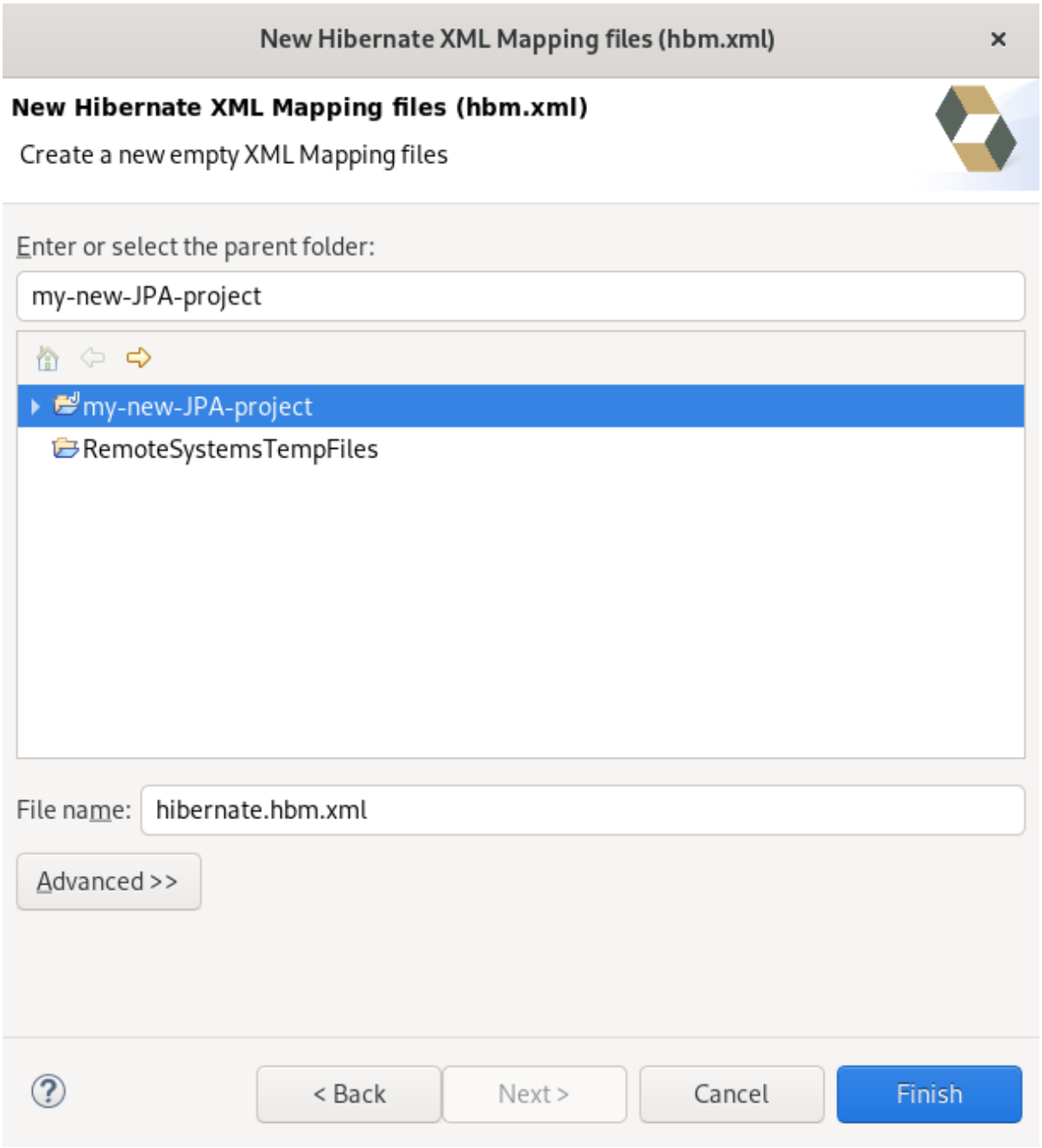
1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



3. Enter **Hibernate** in the search field.
4. Select **Hibernate XML Mapping file (hbm.xml)**.
5. Click **Next**.
   The **Create Hibernate XML Mapping file**window appears.



6. Click the **Add Class** button to add classes.
7. Click the **Add Package** button to add packages.
   Alternatively, you can create an empty **.hbm.xml** file by not selecting any packages or classes.
8. Select the **depth control** check box to define the dependency depth used when choosing classes.
9. Click **Next**.
   The **New Hibernate XML Mapping files** window appears.



10. Select the parent directory.
11. Name your **.hbm.xml** file .
12. Click **Finish**.

7.5. CREATING A HIBERNATE CONFIGURATION FILE

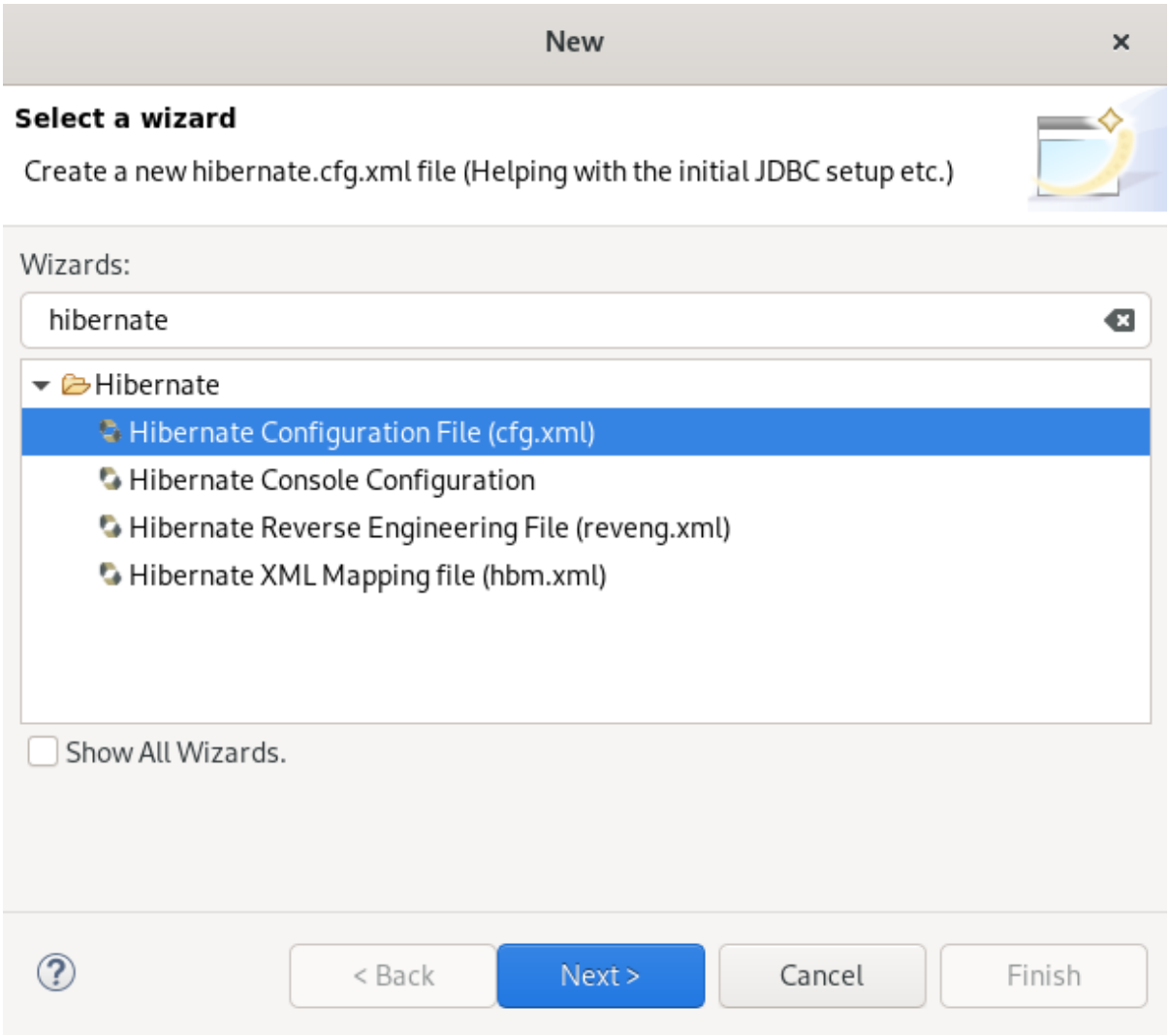
For reverse engineering, prototype queries, or Hibernate Core usage, a **hibernate.properties** or a **hibernate.cfg.xml** file is required. CodeReady Studio provides a wizard to generate the configuration file **hibernate.cfg.xml**.

The following section describes how to create a Hibernate configuration file in CodeReady Studio.

Procedure

1. Start CodeReady Studio.

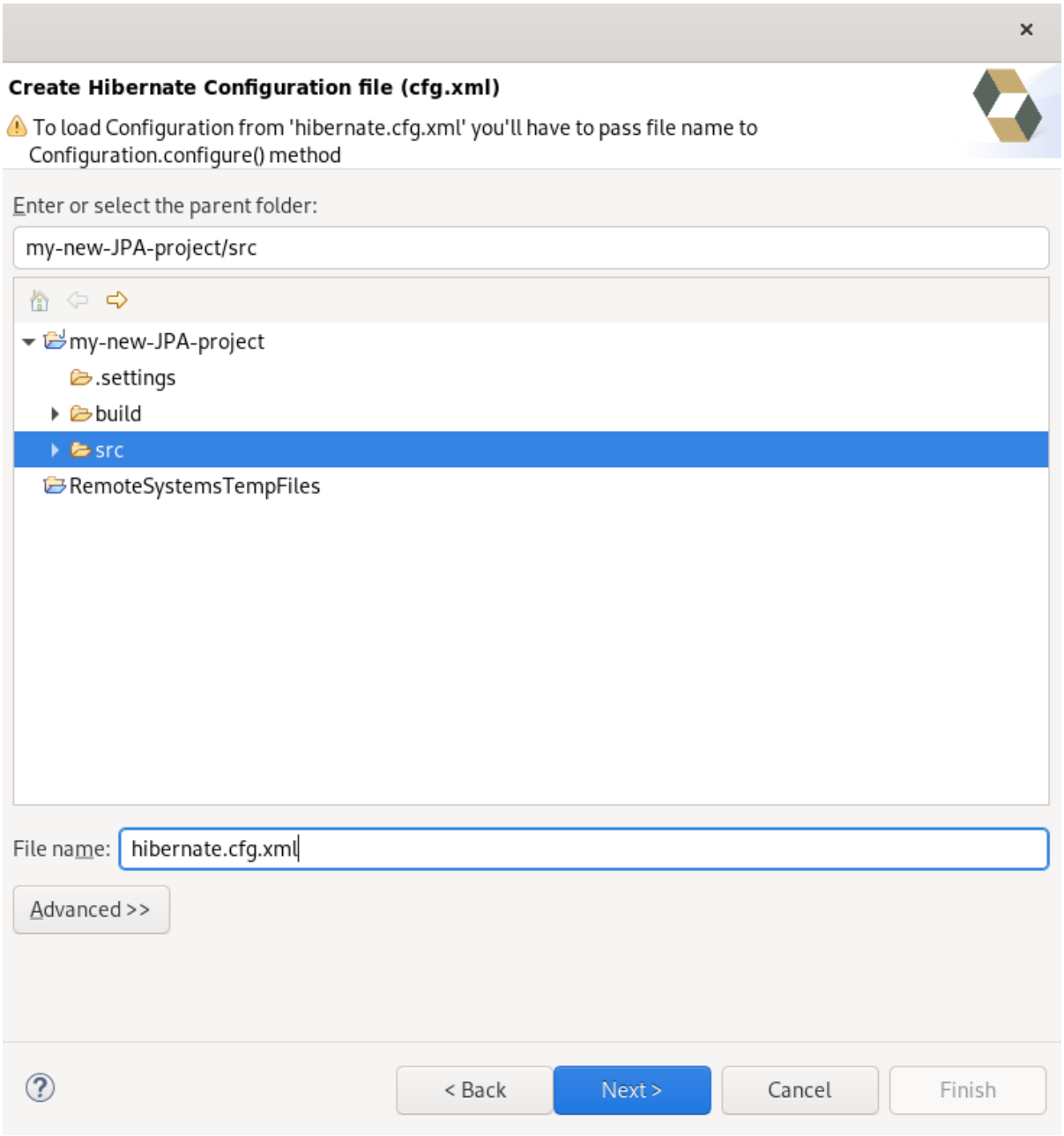
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



3. Enter **Hibernate** in the search field.

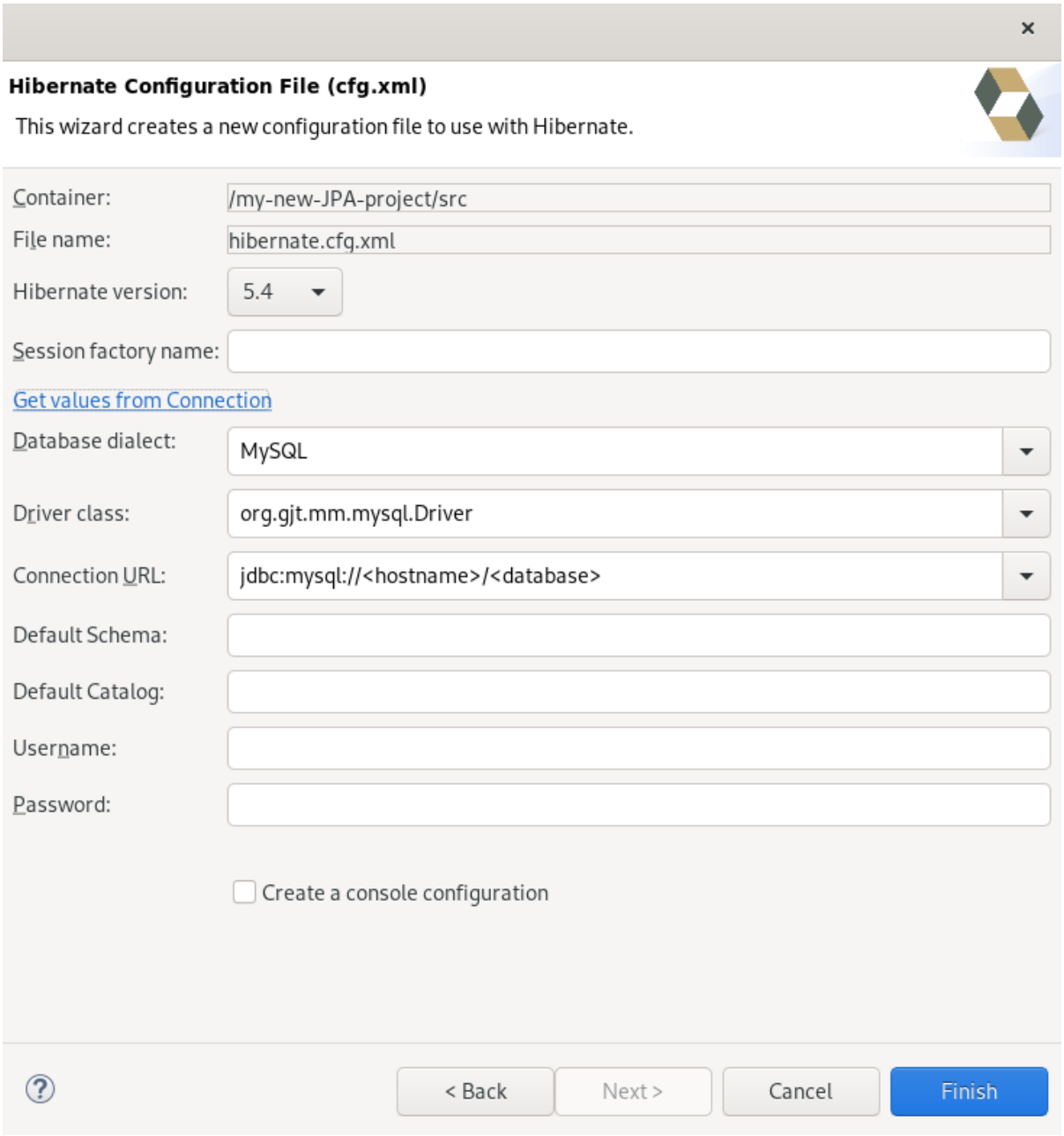
4. Select **Hibernate Configuration file (cfg.xml)**.

5. Click **Next**.
   The **Create Hibernate Configuration file (cfg.xml)** window appears.



6. Select the parent directory.

7. Click **Next**.
   The **Hibernate Configuration File (cfg.xml)** window appears.



8. Click the down-arrow in the **Database dialect** field to select the database.
9. Click the down-arrow in the **Driver class** field to select the driver.
10. Click the down-arrow in the **Connection URL** field to select the URL.
11. Click **Finish**.

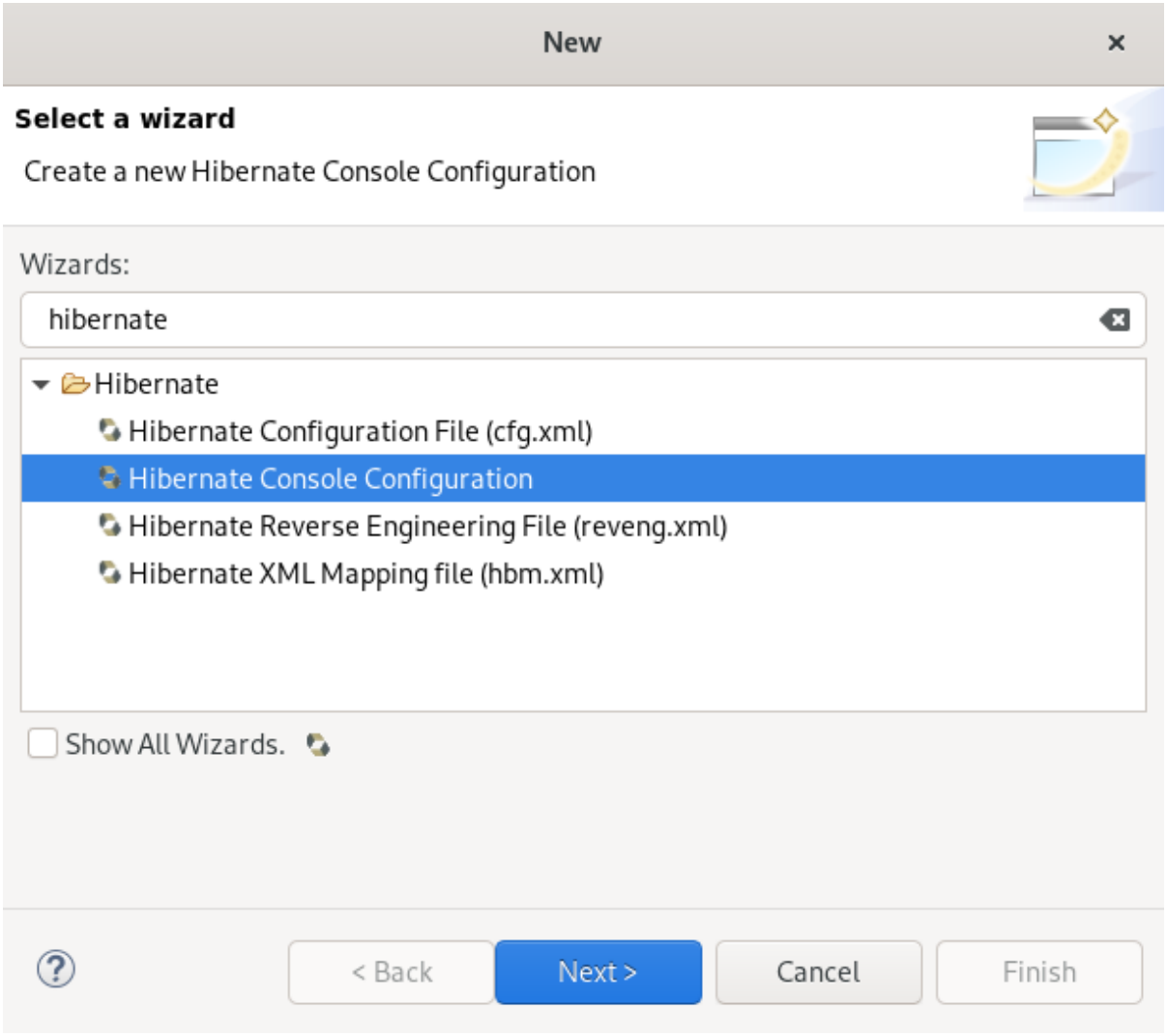
7.6. CREATING A HIBERNATE CONSOLE CONFIGURATION FILE

A console configuration file describes how the Hibernate plugin configures Hibernate. It also describes the configuration files and classpaths needed to load the POJOs, JDBC drivers, and so on. It is required to make use of query prototyping, reverse engineering and code generation. You can have multiple console configurations per project, however, one configuration is sufficient.

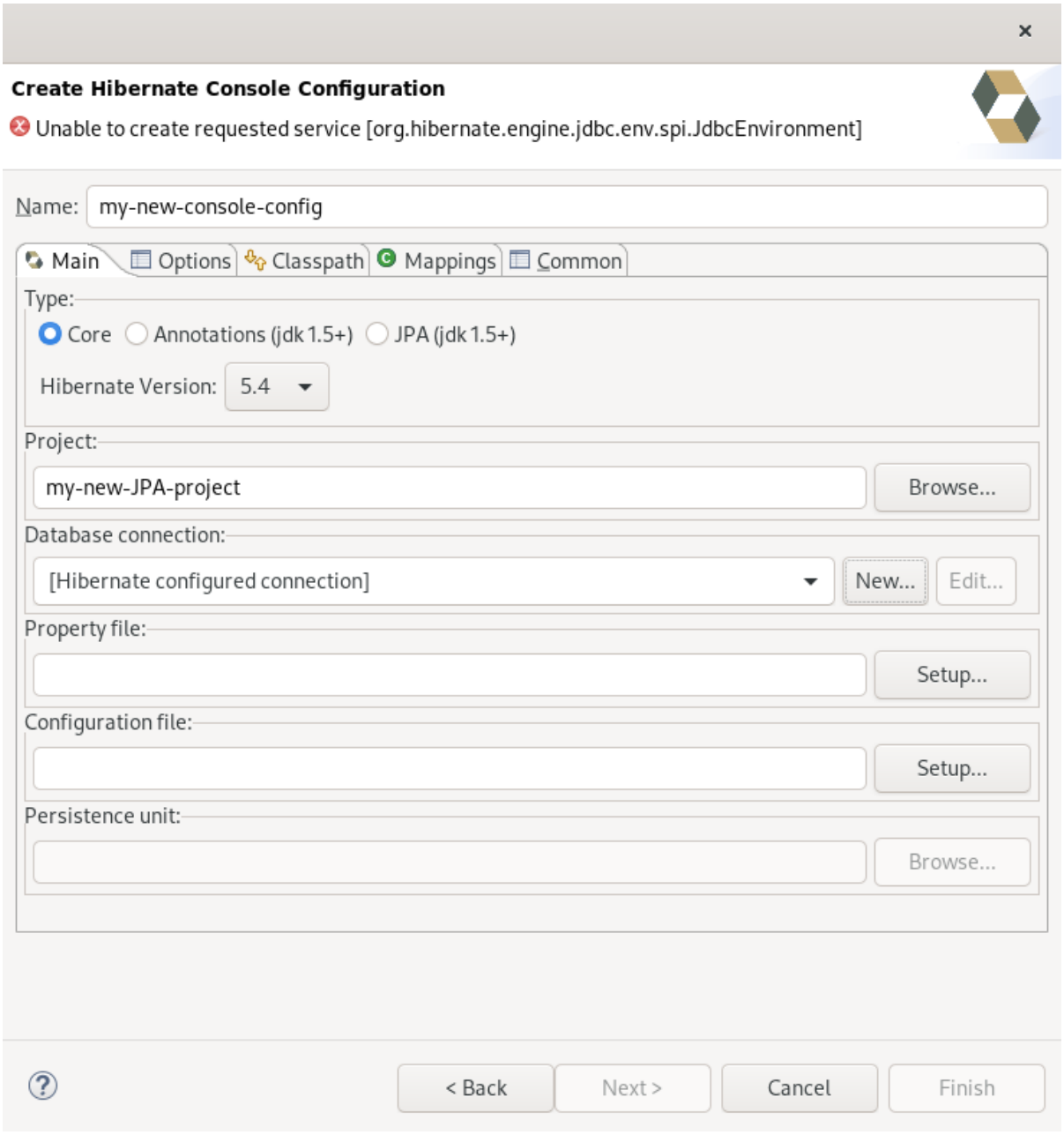
The following section describes how to create a Hibernate console configuration file in CodeReady Studio.

Procedure

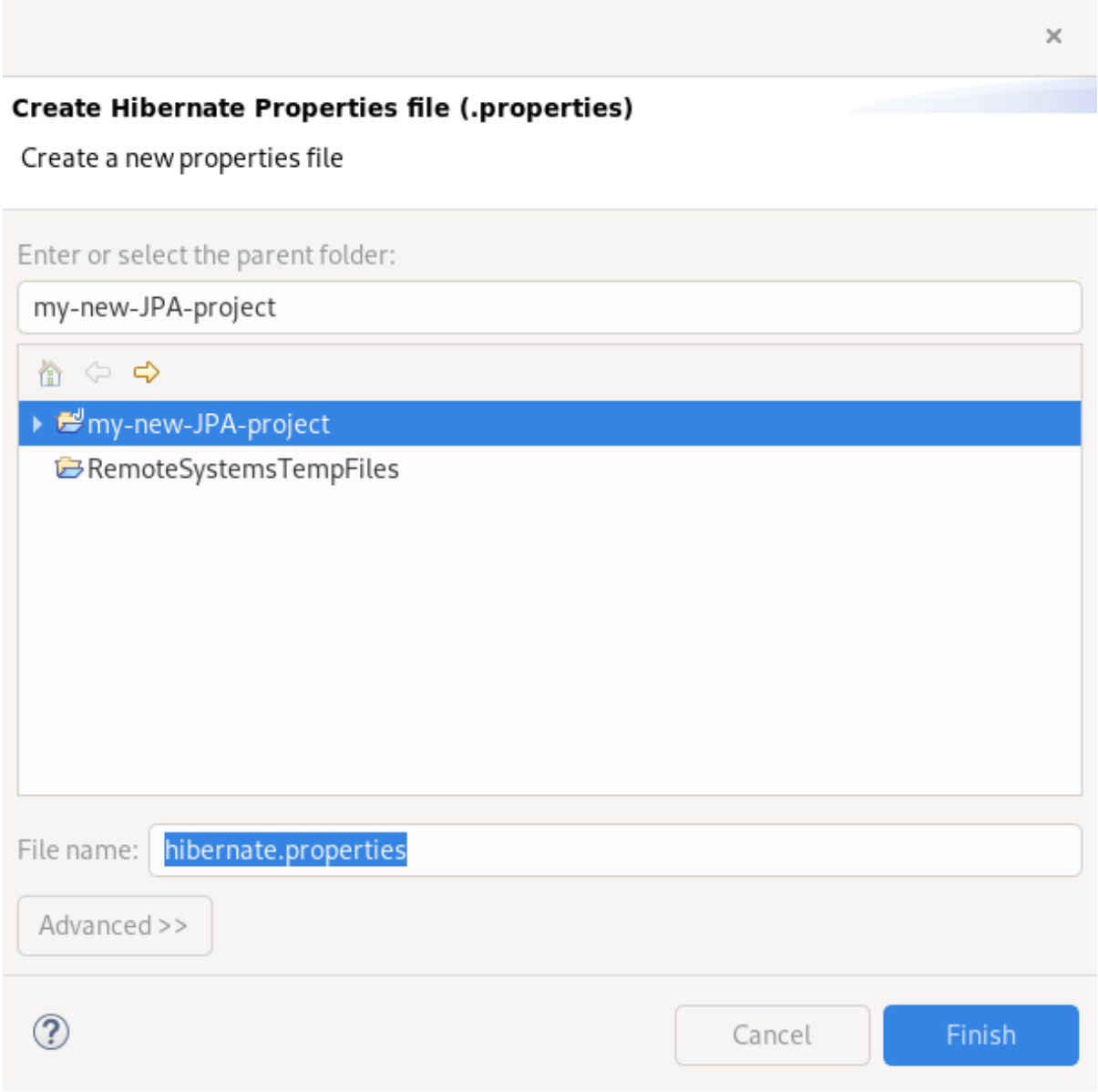
1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



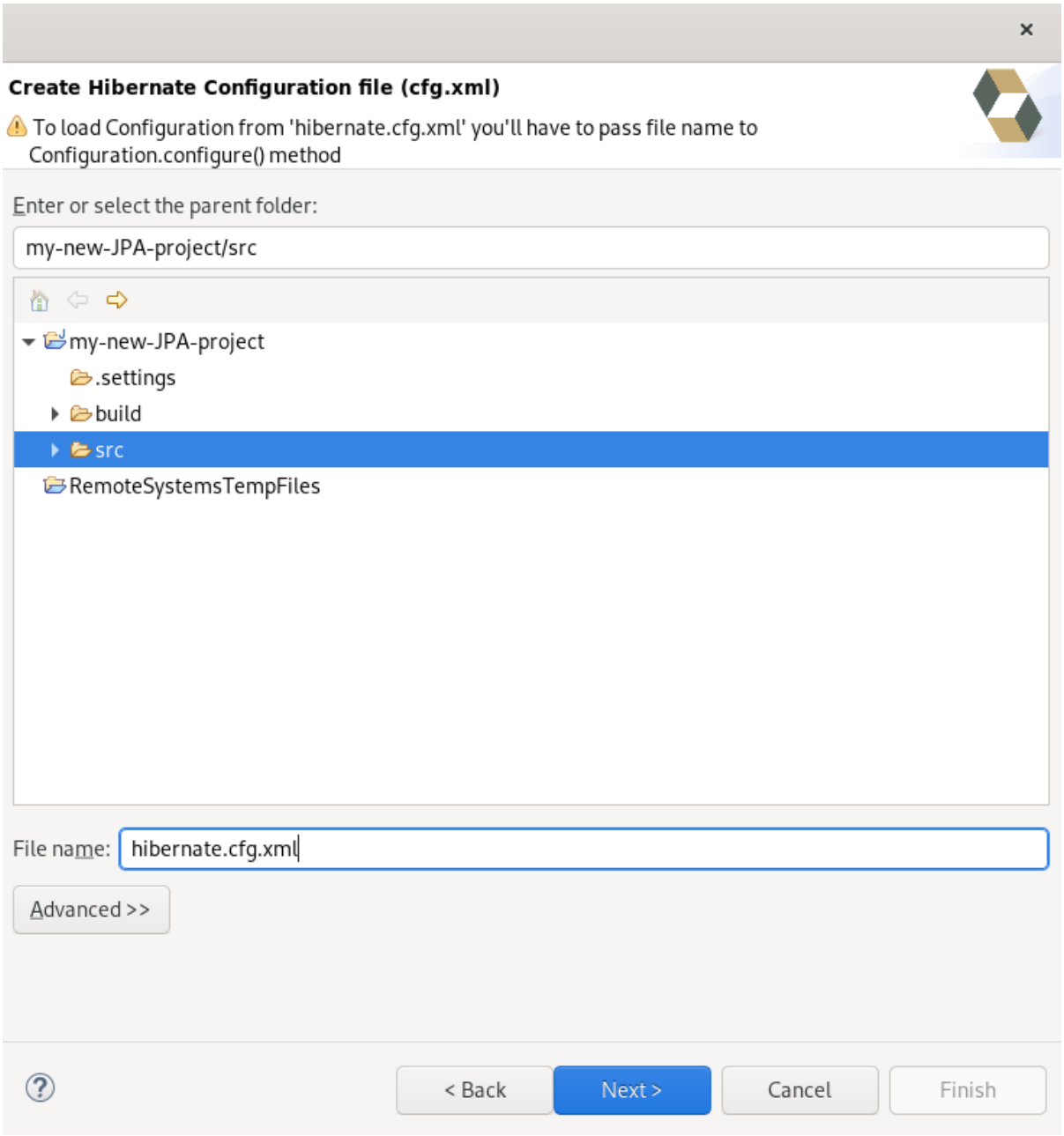
3. Enter **Hibernate** in the search field.
4. Select **Hibernate Console Configuration**.
5. Click **Next**.
   The **Create Hibernate Console Configuration** window appears.



6. Name your configuration file .
7. Ensure that the **Type** is set to **Core**.
8. Select the correct **Hibernate version**.
9. Click **Browse** to locate your project.
10. Click **New** to configure a new **Database connection**.
    The **New Connection Profile** window appears.
11. Select the **Database Connection** or create a new one.
12. Click **Setup** to set up the **Property file**.
    The **Setup property file** window appears.
13. Click **Create new**.
    The **Create Hibernate Properties file (.properties)** window appears.

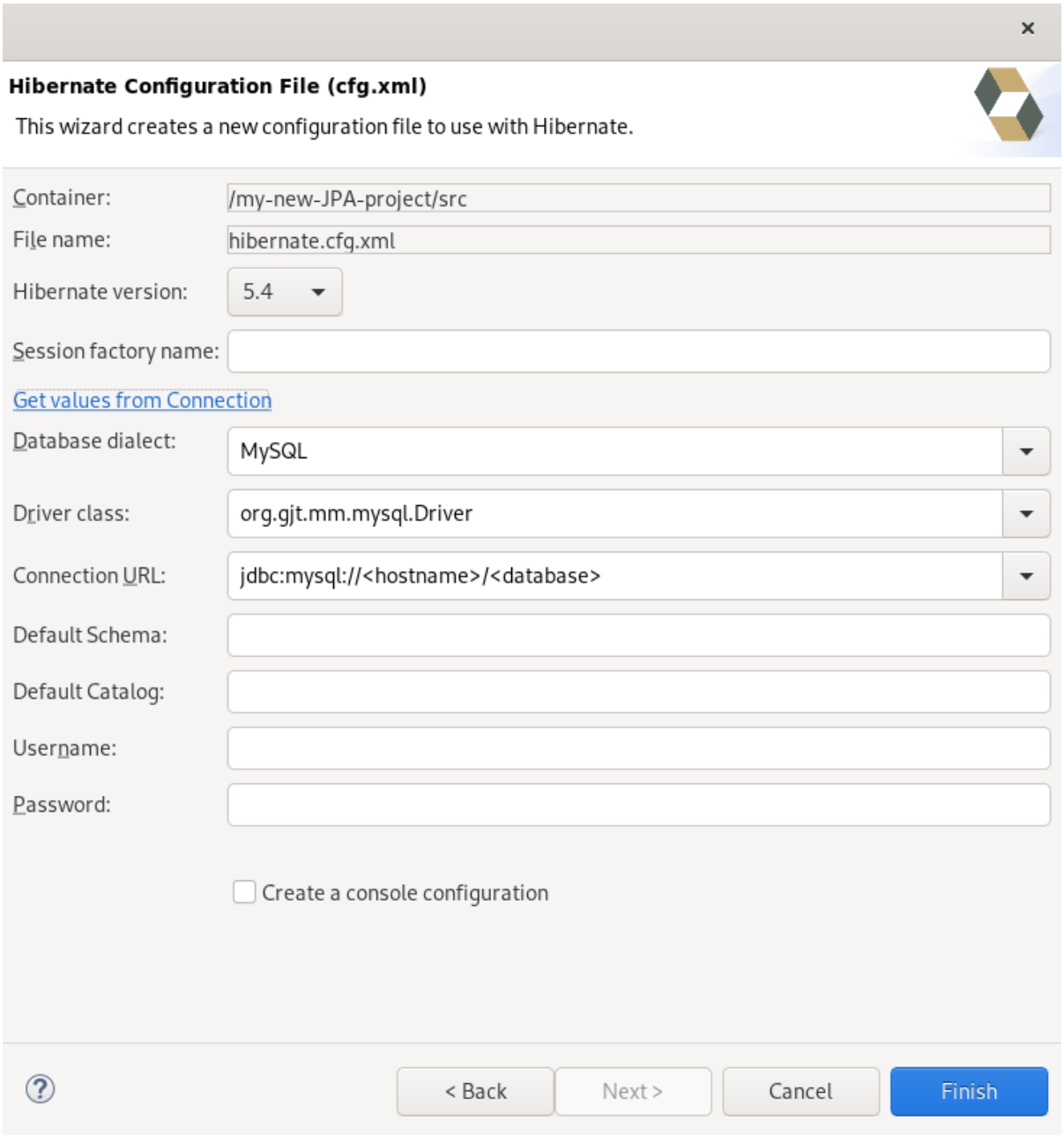


14. Select the parent directory.
15. Name your **.properties** file.
16. Click **Finish**.
17. Click **Setup** to set up the **Configuration file**.
18. Select the path to the target **.cfg.xml** file.
    The **Setup configuration file** window appears.
19. Click **Create new**.
    The **Create Hibernate Configuration file (cfg.xml)** window appears.

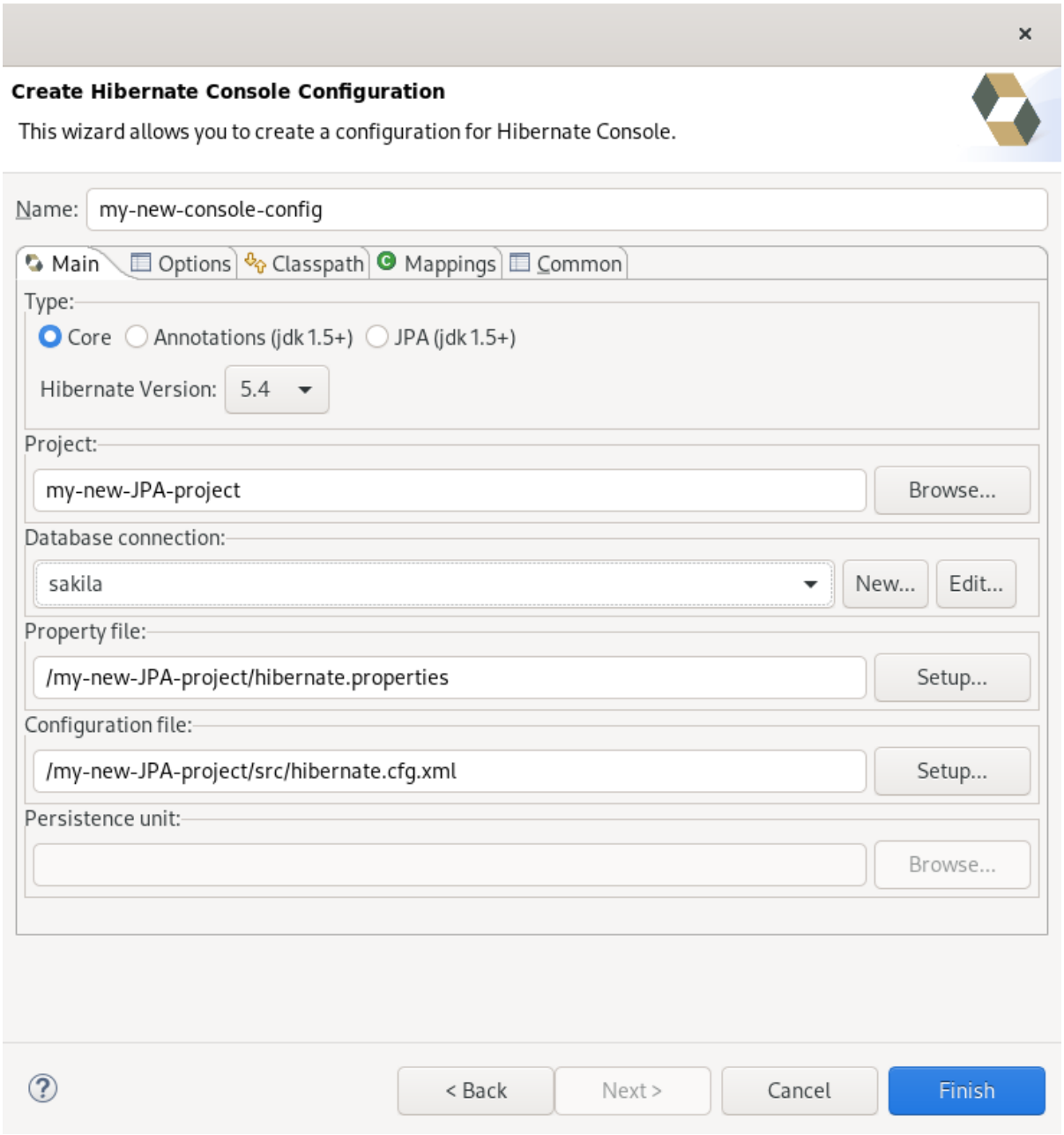


20. Select the parent directory.

21. Click **Next**.
The **Hibernate Configuration File (cfg.xml)** window appears.



22. Click the down-arrow in the **Database dialect** field to select the database.
23. Click the down-arrow in the **Driver class** field to select the driver.
24. Click the down-arrow in the **Connection URL** field to select the URL.
25. Click **Finish**.
    The **Create Hibernate Console Configuration** window appears.



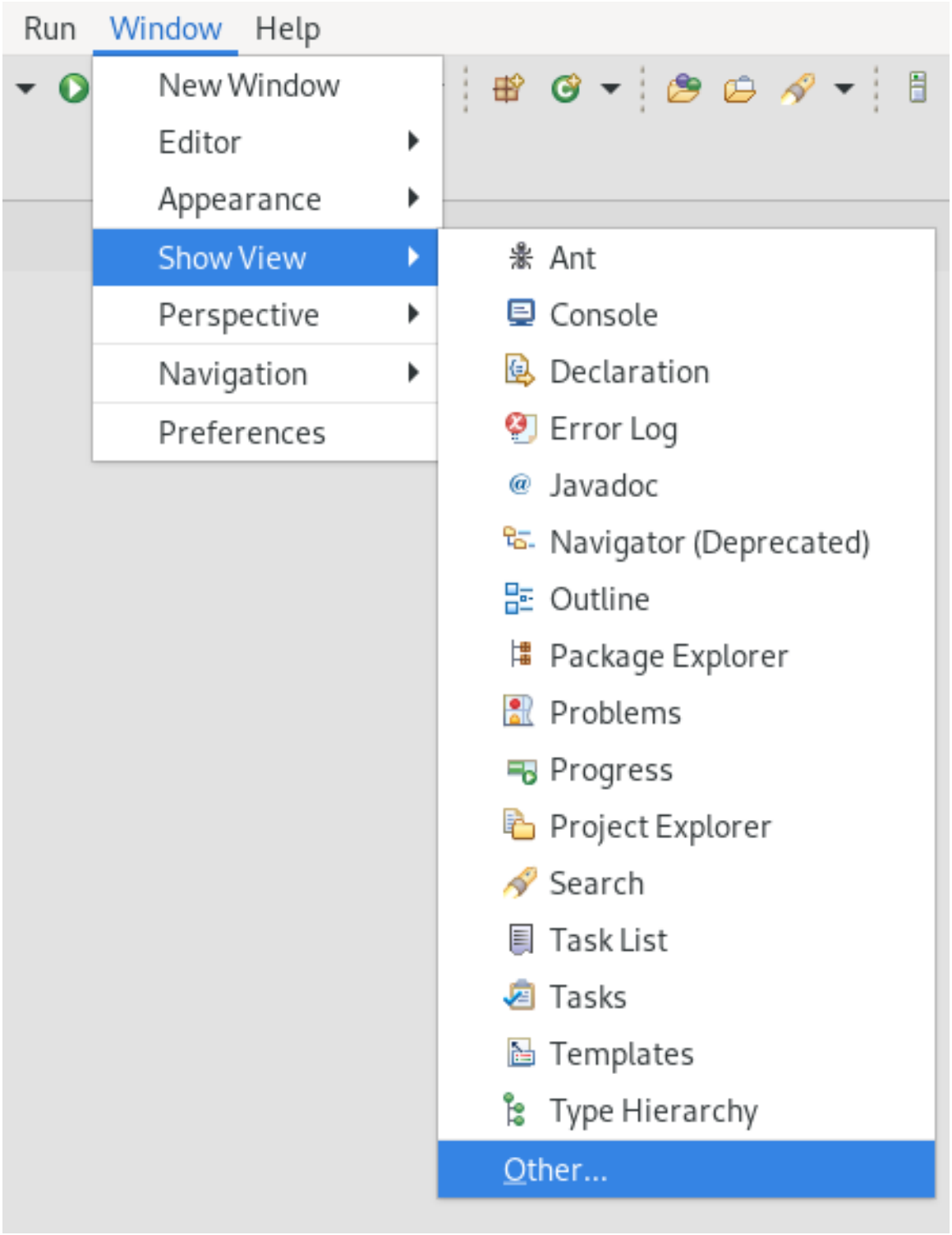
26. Set the database connection to **sakila**.
27. Click **Finish**.

7.7. EDITING HIBERNATE PROJECT CONFIGURATIONS

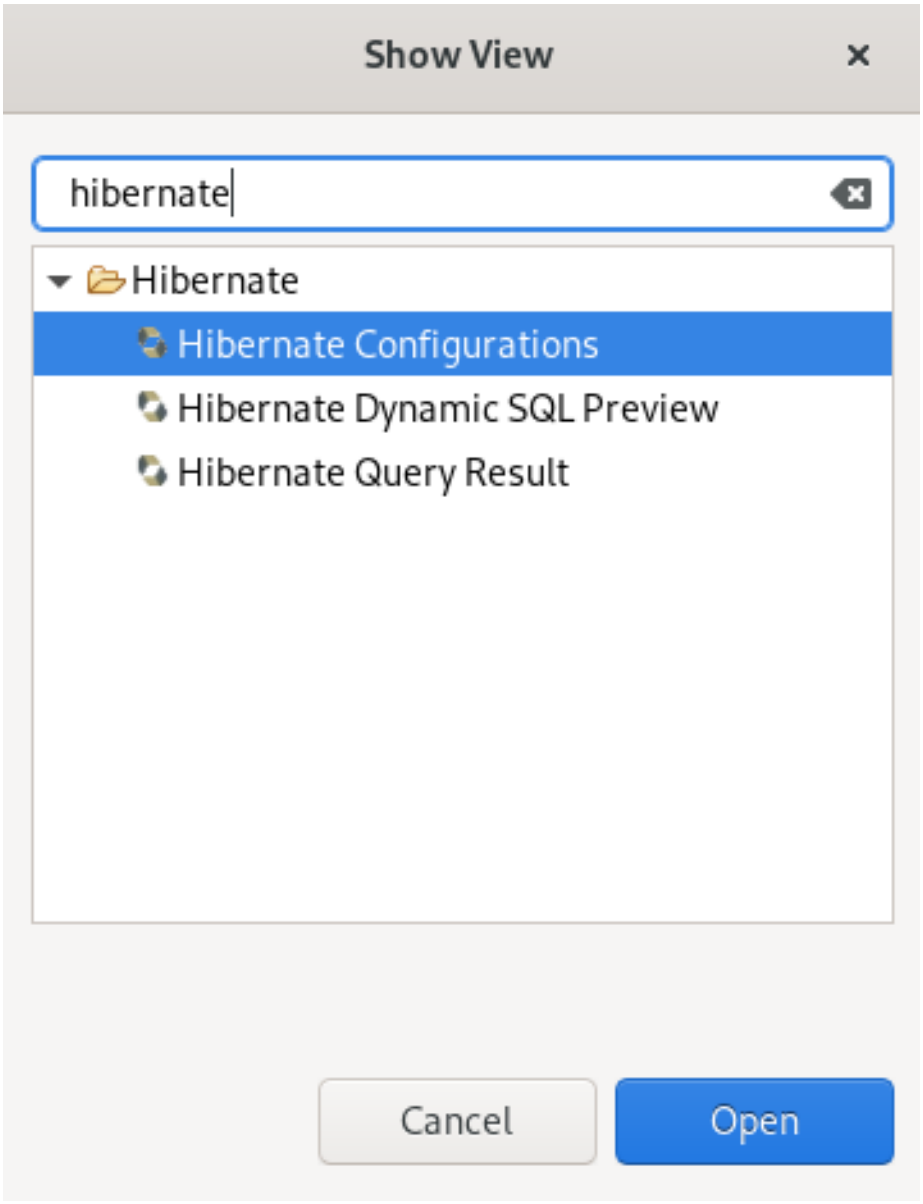
The following section describes how to edit configurations for your Hibernate project in CodeReady Studio.

Procedure

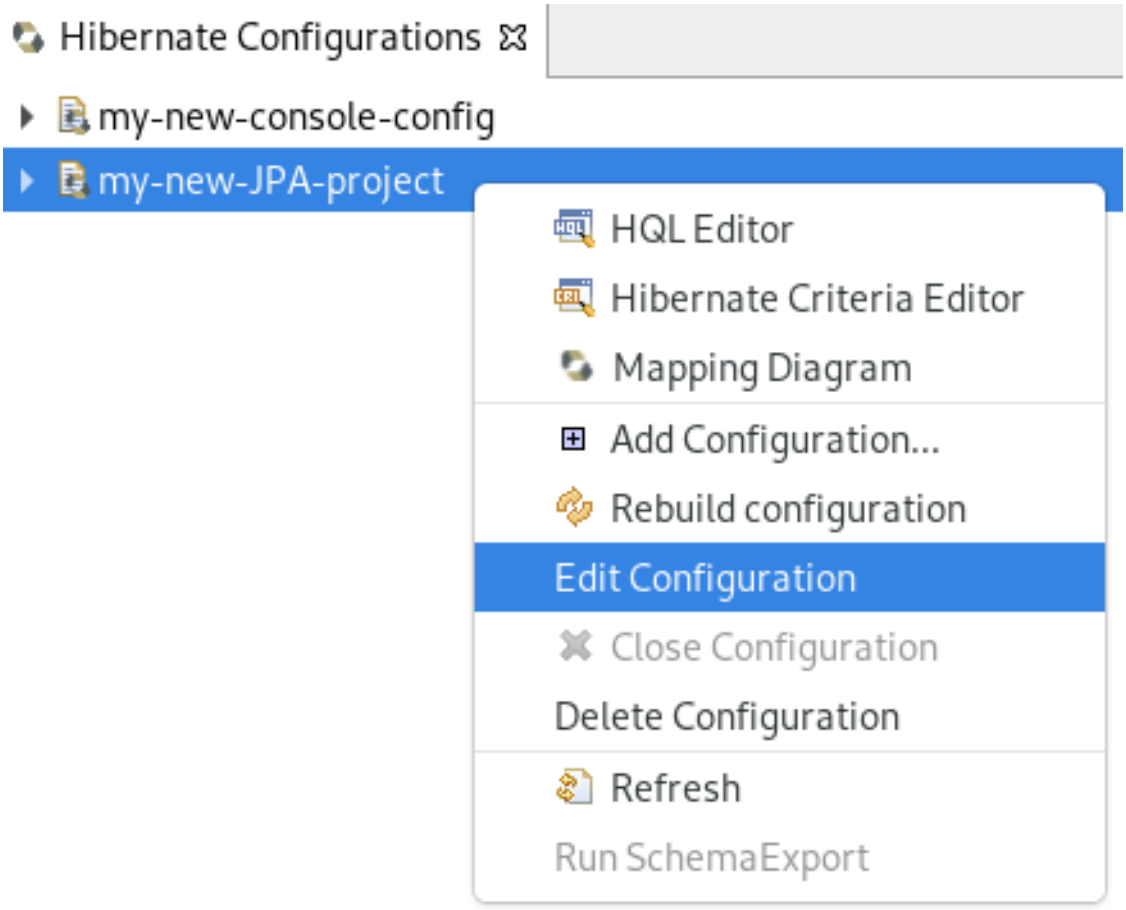
1. Start CodeReady Studio.
2. Click **Window → Show View → Other**.



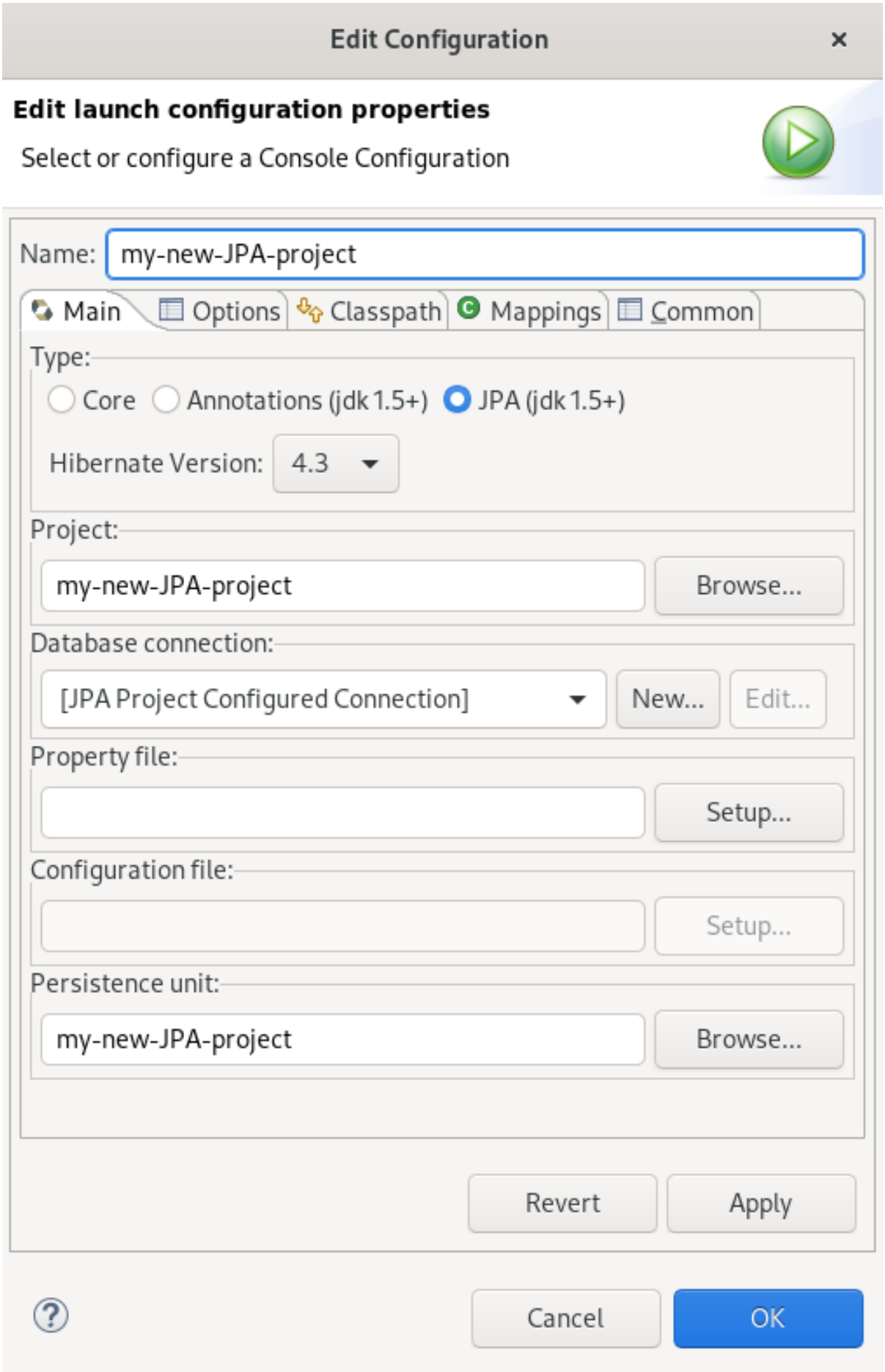
The **Show View** window appears.



3. Enter **Hibernate** in the search field.
4. Select **Hibernate Configurations**.
5. Click **Open**.
   The **Hibernate Configurations** view appears.



6. Right-click your **project → Edit Configuration**.
   The **Edit Configuration** window appears.



7. Edit your configurations.
8. Click **Apply**.

9. Click **OK**.

CHAPTER 8. MOBILE WEB TOOLS BASICS IN CODEREADY STUDIO

Mobile Web Tools provide an **HTML5 Project** wizard that enables you to create web applications optimized for mobile devices. The **HTML5 Project** wizard is a useful starting point for creating all new HTML5 web applications in CodeReady Studio. The wizard generates a sample ready-to-deploy HTML5 mobile application with REST resources from a Maven archetype.

You can customize the application using the built-in editor, and deploy and view the application with the built-in browser.

CodeReady Studio provides the **Mobile Web** palette that allows the user to make interactive web applications. This palette offers a wide range of features including drag-and-drop widgets for adding common web interface framework features such as HTML5, jQuery Mobile, and Ionic tags to html files. It also contains widgets like **Panels**, **Pages**, **Lists**, and **Buttons** to make your applications more user friendly and efficient.

8.1. CREATING AN HTML5 PROJECT

The **HTML5 Project** wizard generates a sample project based on a Maven archetype and the project and application identifiers provided by you. The Maven archetype version is indicated in the **Description** field on the first page of the wizard. You can change the version, and therefore the project look and dependencies, by selecting either an enterprise or non-enterprise target runtime within the wizard.

The following section describes how to create an HTML5 project in CodeReady Studio.

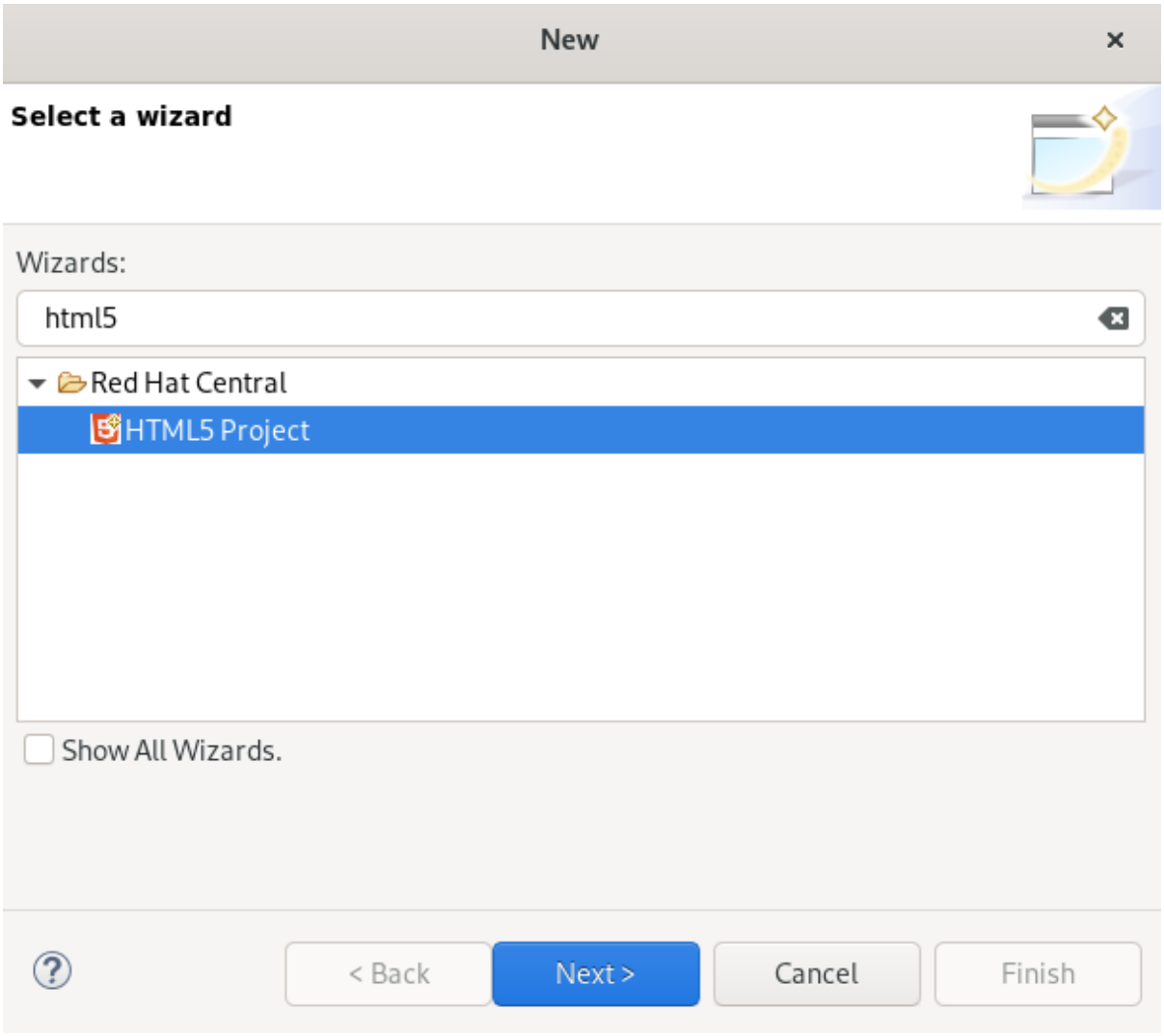
Prerequisites

- A configured server.
  For information on configuring a local runtime server and deploying applications to it, see Section 3.1, “Configuring a local server” .

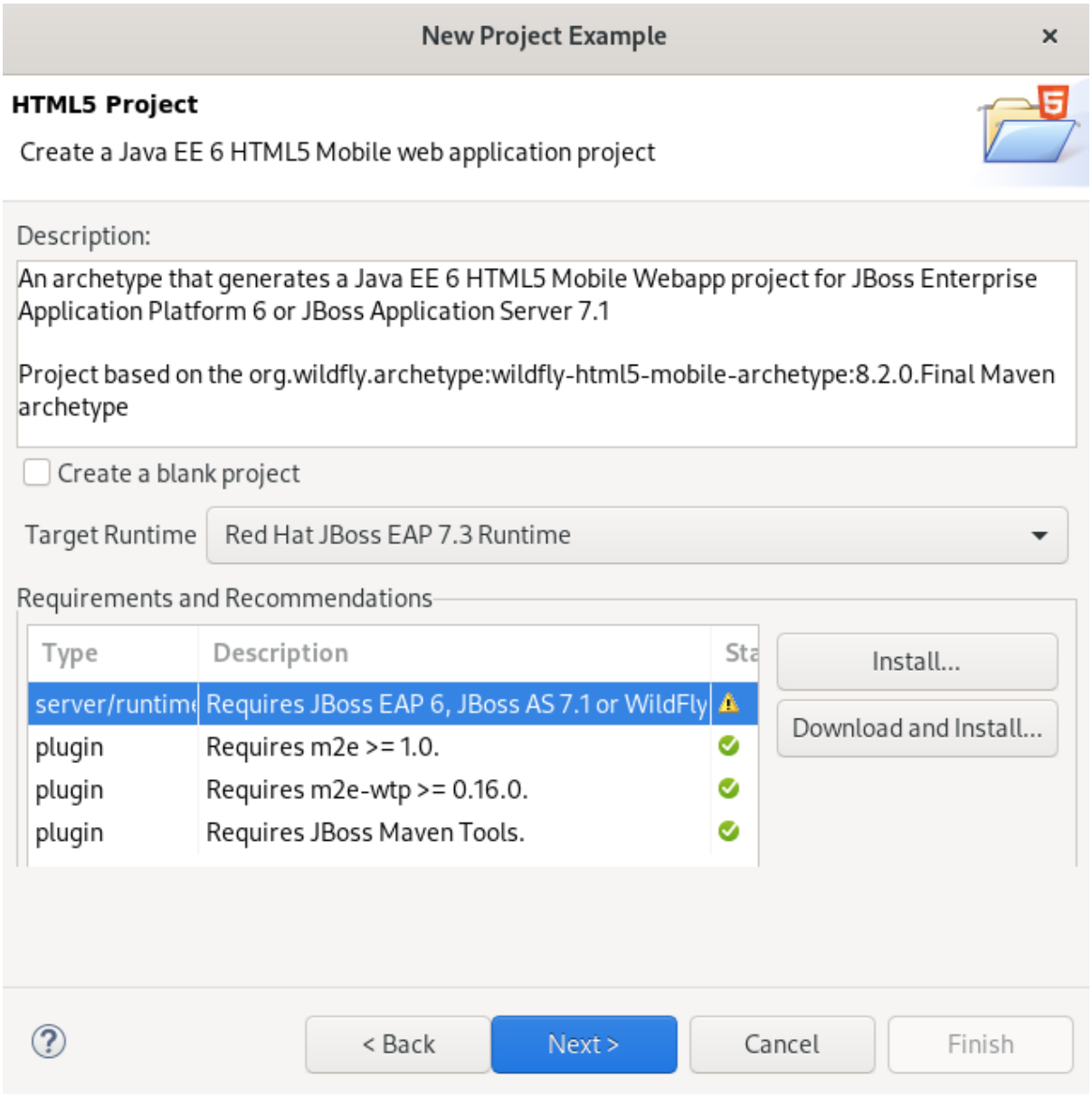
CodeReady Studio must be configured for any servers to which you want to deploy your application, including the location and type of the application server and any custom configuration or management settings.

Procedure

1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.



3. Enter **HTML5** in the search field.
4. Select **HTML5 Project**.
5. Click **Next**.
   The **New Project Example** window appears.



6. Click the down-arrow in the **Target Runtime** field.
7. Select your server.
8. Click **Next**.
9. Name your project and your package.
10. Select the location for your project.
11. Click **Finish**.
    Note that it might take some time for the project to generate.

    The **New Project Example** window appears.
12. Click **Finish**.

Your newly created project is now listed in the **Project Explorer** view.

8.2. ADDING A NEW HTML5 JQUERY MOBILE FILE

The HTML5 **jQuery Mobile** file template consists of JavaScript and CSS library references that are inserted in the file's HTML header. The template also inserts a skeleton of the **jQuery Mobile** page and **listview** widgets in the file's HTML body.

The following section describes how to add a new HTML5 jQuery Mobile file to an existing project.

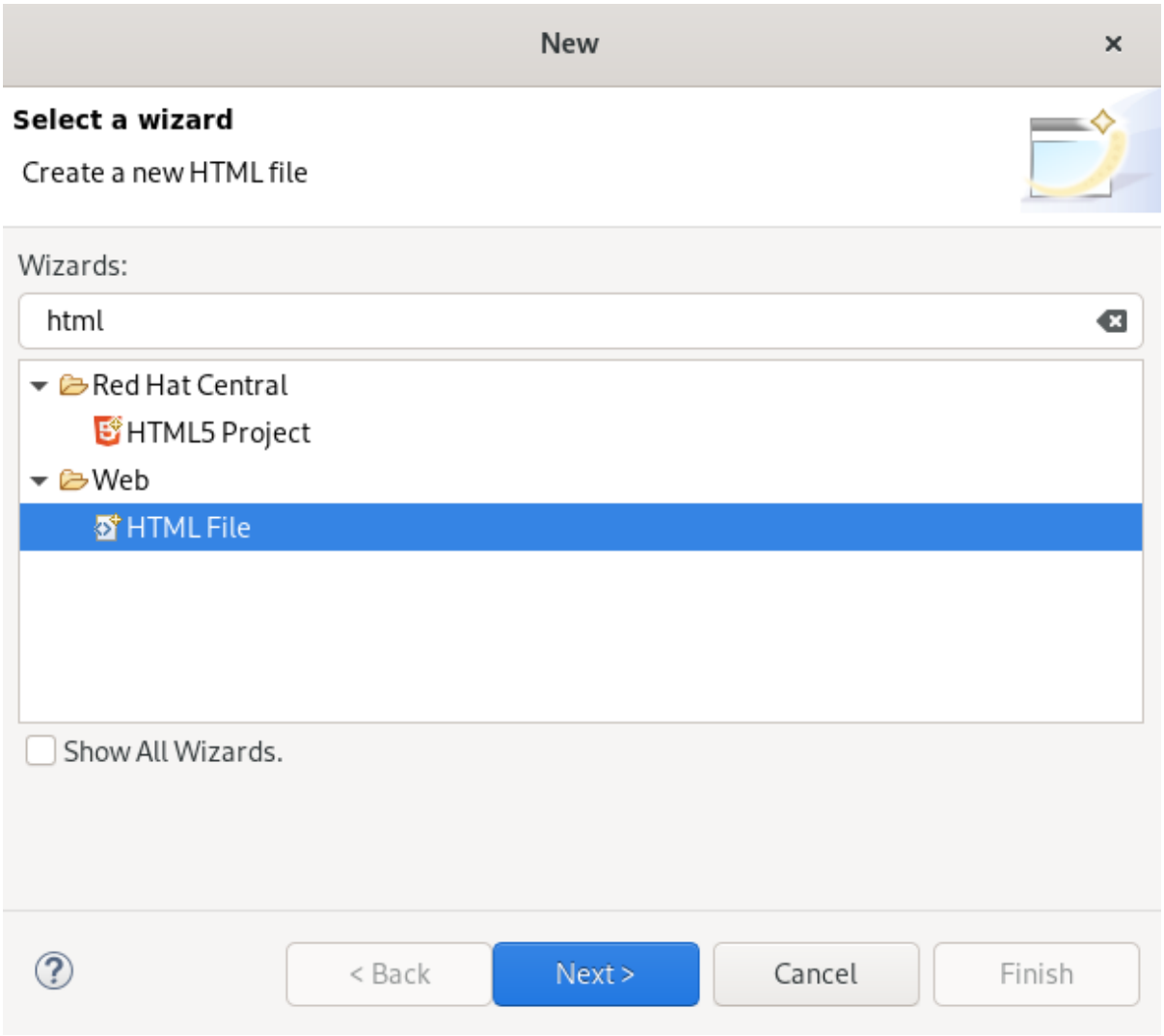
Prerequisites

- A configured server.
  For information on configuring a local runtime server and deploying applications to it, see Section 3.1, "Configuring a local server" .

CodeReady Studio must be configured for any servers to which you want to deploy your application, including the location and type of the application server and any custom configuration or management settings.

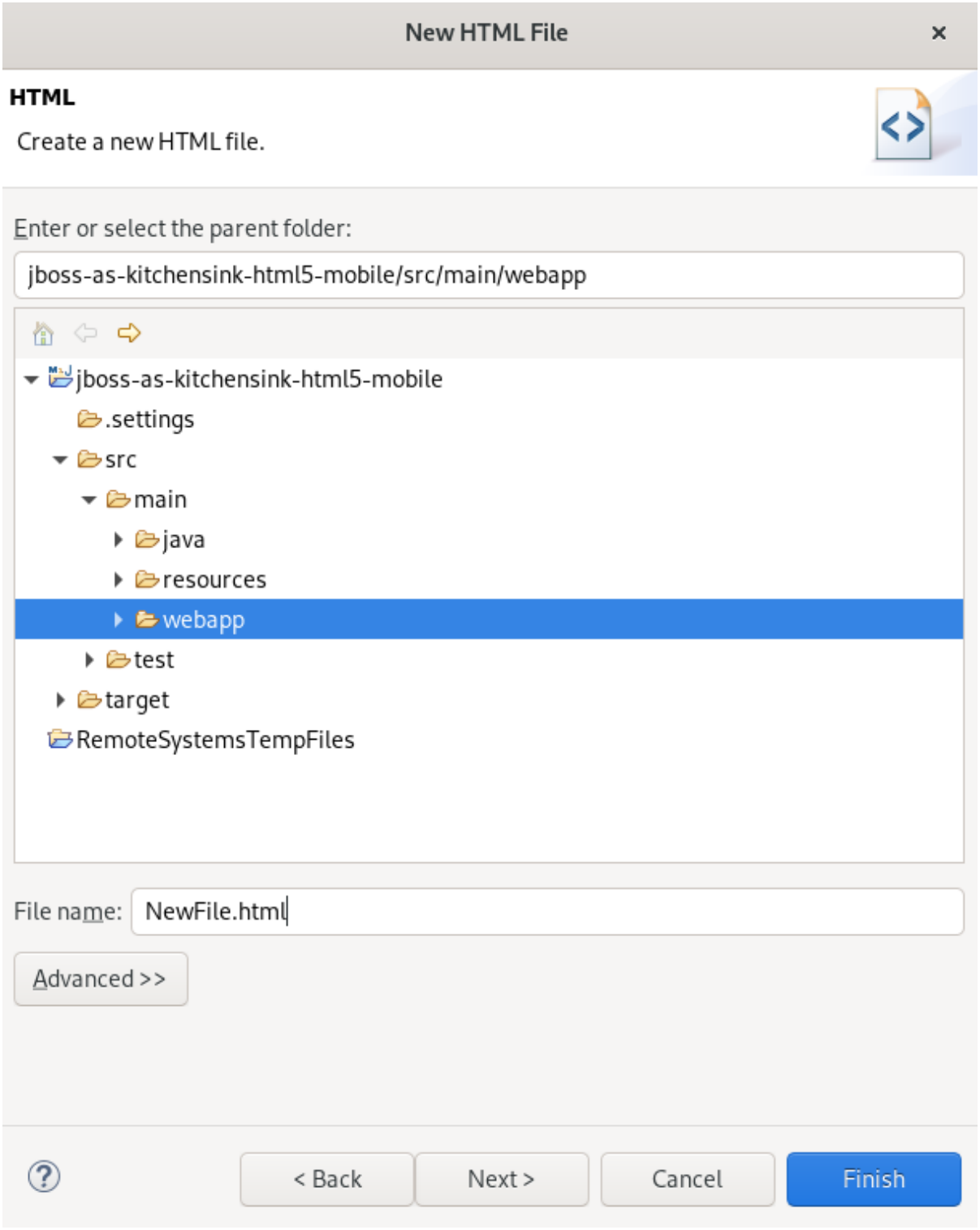
Procedure

1. Start CodeReady Studio.
2. Press **Ctrl**+**N**.
   The **Select a wizard** window appears.

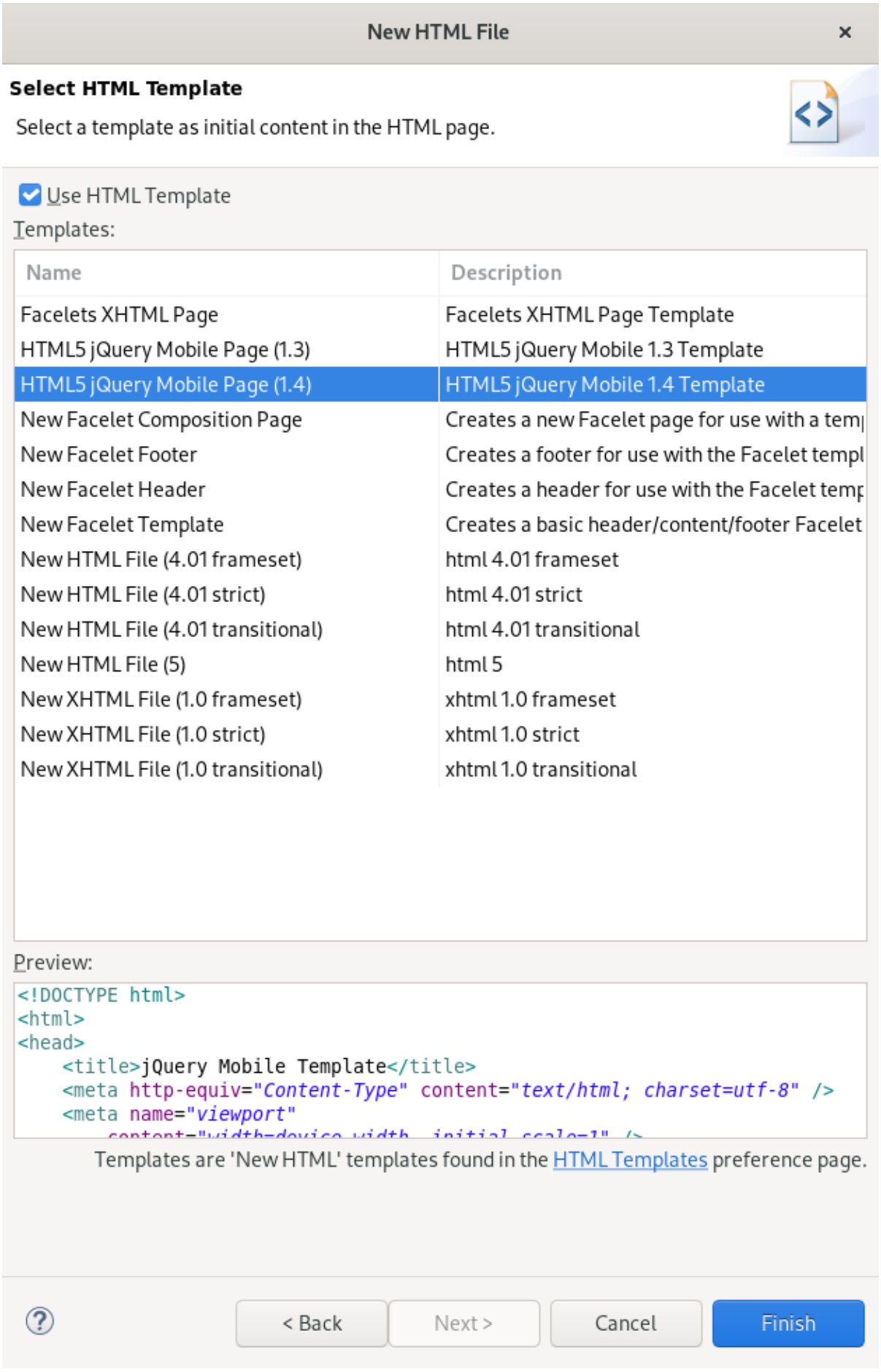


3. Enter **HTML** in the search field.

4. Select **HTML File**.
5. Click **Next**.
   The **New HTML File** window appears.



6. Select the location for your file.
7. Name your file.
8. Click **Next**.
   The **Select HTML Template** window appears.



9. Select a template.
10. Click **Finish**.

The newly created HTML file is now displayed in the CodeReady Studio editor.

8.3. ADDING A NEW MOBILE PAGE

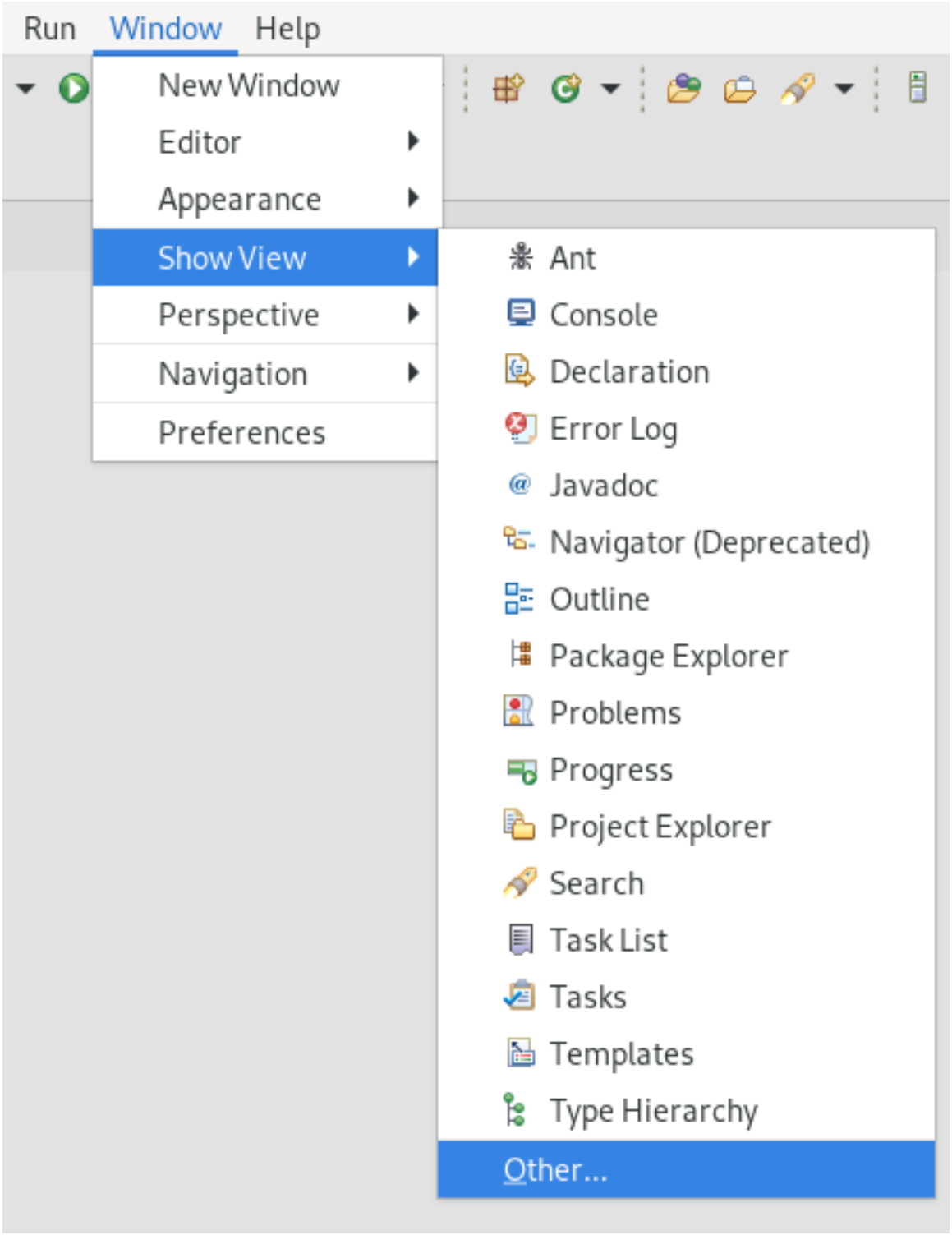
The following section describes how to add a new jQuery Mobile Page to an existing web application.

Prerequisites

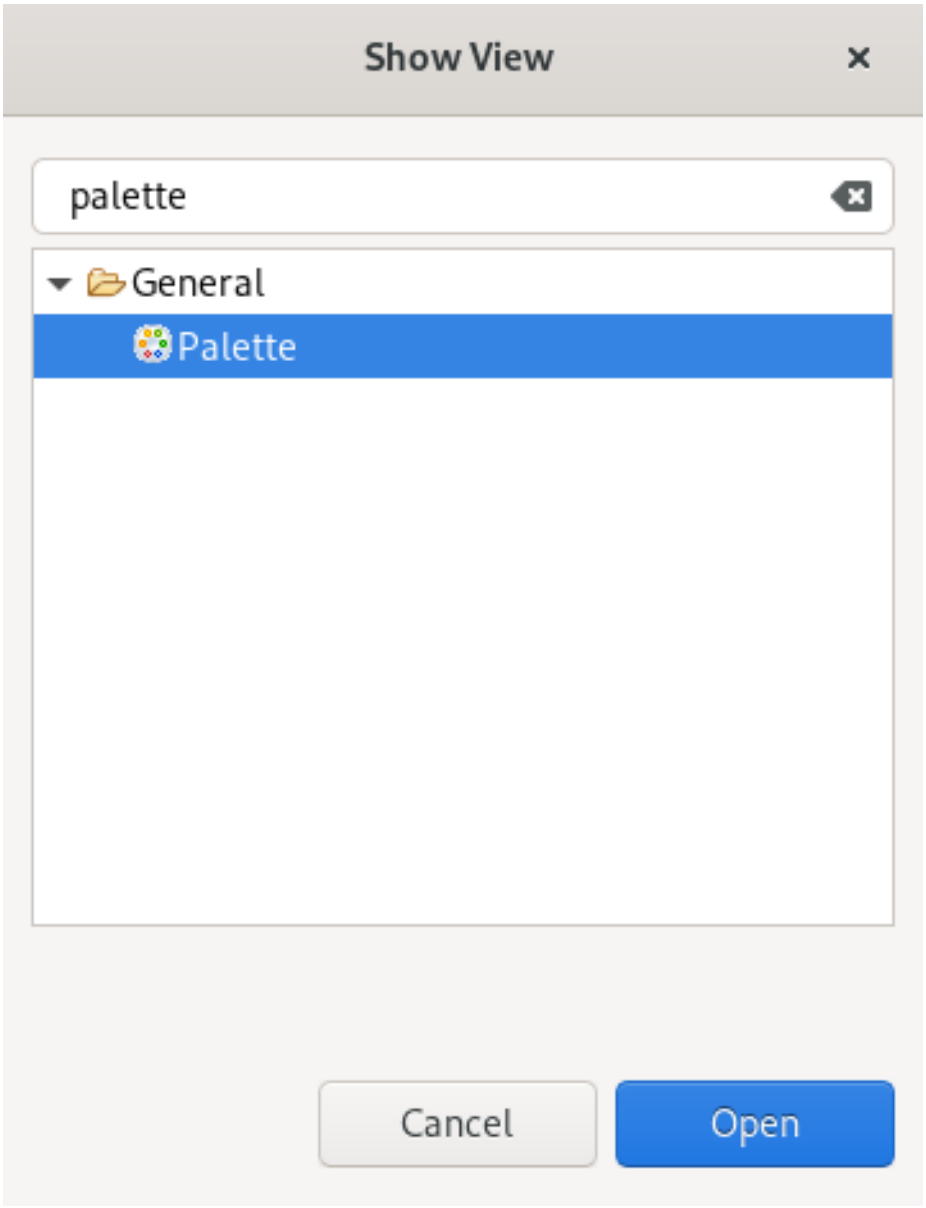
- An HTML5 project.
  For more information on how to create an HTML5 project, see Section 8.1, "Creating an HTML5 Project".

Procedure

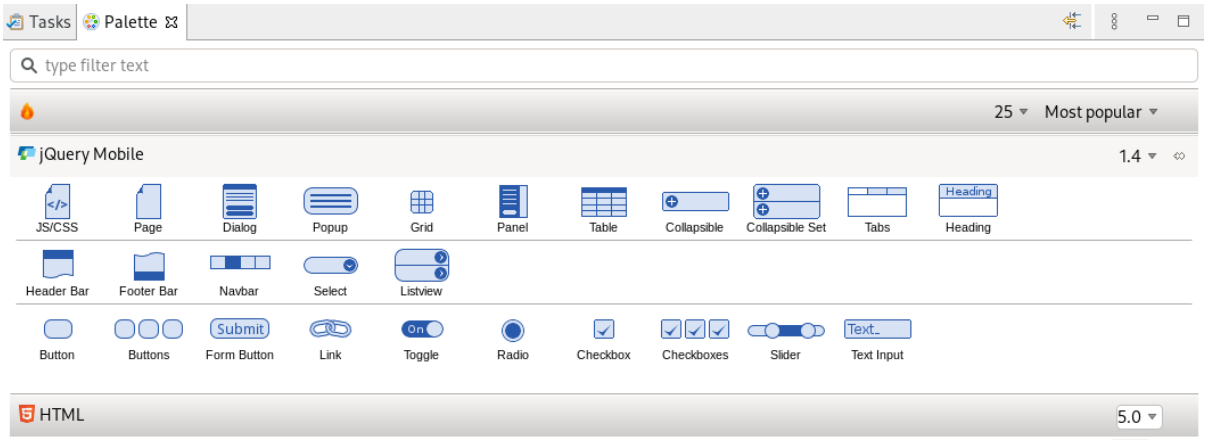
1. Start CodeReady Studio.
2. Click **Window → Show view → Other**.



The **Show View** window appears.

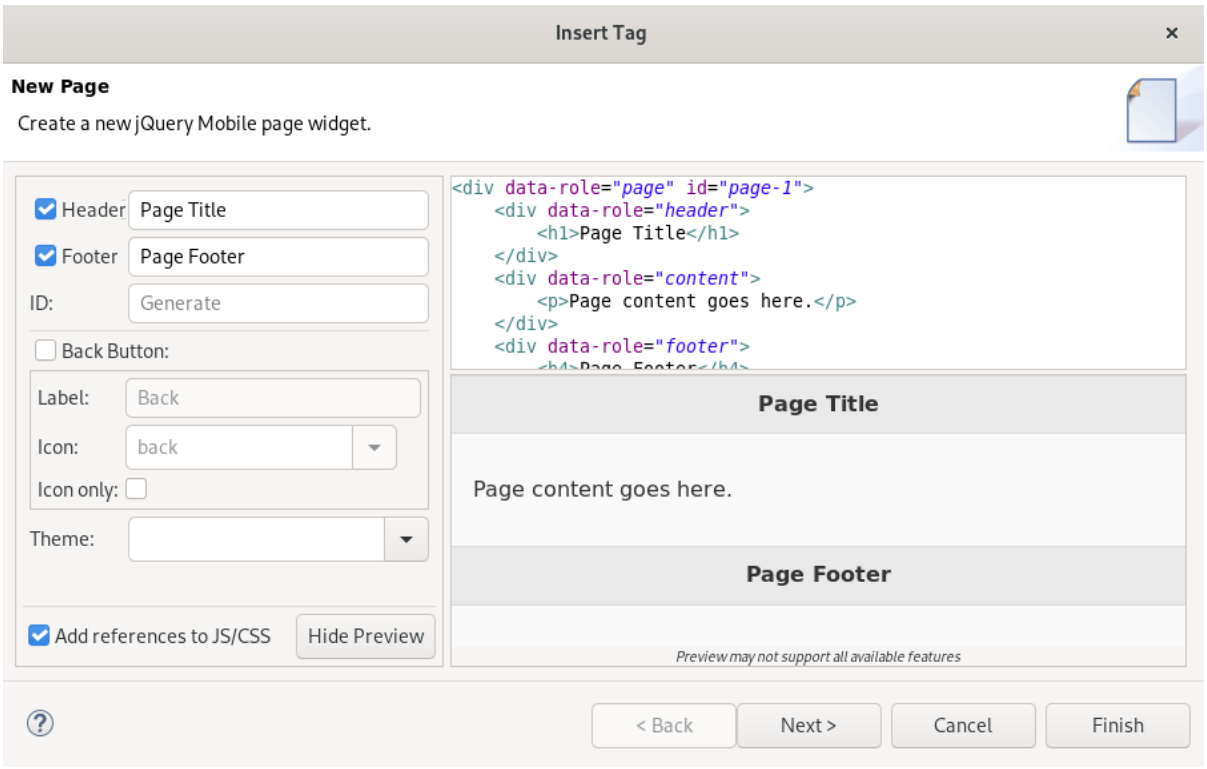


3. Enter **Palette** in the search field.
4. Select **Palette**.
5. Click **Open**.
   The **Palette** view appears.



6. Click the **Page** icon.

The **Insert Tag** window appears.



7. Name the **Header**.
8. Name the **Footer**.
9. Click **Finish**.

Your newly added page is now displayed in the CodeReady Studio editor.

NOTE

You can use the same workflow to customize the pages of your web application by selecting widgets from the **Palette** view.