Red Hat support for Spring Boot 2.7

Migrating applications to Spring Boot 2.7

For use with Spring Boot 2.7.18
Red Hat support for Spring Boot 2.7 Migrating applications to Spring Boot 2.7

For use with Spring Boot 2.7.18
Abstract
The Migrating applications to Spring Boot 2.7 document contains information related to migrating older Spring Boot applications to Spring Boot 2.7.18.
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We appreciate your feedback on our documentation. To provide feedback, you can highlight the text in a document and add comments.

This section explains how to submit feedback.

**Prerequisites**

- You are logged in to the Red Hat Customer Portal.
- In the Red Hat Customer Portal, view the document in Multi-page HTML format.

**Procedure**

To provide your feedback, perform the following steps:

1. Click the **Feedback** button in the top-right corner of the document to see existing feedback.

   **NOTE**

   The feedback feature is enabled only in the Multi-page HTML format.

2. Highlight the section of the document where you want to provide feedback.

3. Click the **Add Feedback** pop-up that appears near the highlighted text.
   A text box appears in the feedback section on the right side of the page.

4. Enter your feedback in the text box and click **Submit**.
   A documentation issue is created.

5. To view the issue, click the issue tracker link in the feedback view.
CHAPTER 1. MIGRATING SPRING BOOT 2.5 APPLICATIONS TO SPRING BOOT 2.7.18

The Spring Boot BOM (Bill of Materials) that manages dependencies for Red Hat-supported components is not available from Red Hat support for Spring Boot 2.7 onward. To migrate applications that use the Spring Boot BOM for dependency management, you can remove the BOM from your application’s `pom.xml` file and then add the required dependencies with their versions in the `pom.xml` file.

The following procedure shows you how to update some of the commonly used dependencies for Red Hat components. For a complete list of dependencies, see the Supported Spring Boot configurations and integrations.

Prerequisites

- You have a working Spring Boot application that uses the Spring Boot BOM.

Procedure

1. Remove the Spring Boot BOM from the `pom.xml` file in your application.
   - If you use the BOM as a dependency in the `<dependencyManagement>` section of the `pom.xml` file, remove the following lines from the file:

        ```xml
        <project>
        ...
        <dependencyManagement>
        <dependencies>
        <dependency>
        <groupId>io.dekorate</groupId>
        <artifactId>dekorate-spring-bom</artifactId>
        <version>${dekorate.version}</version>
        <type>pom</type>
        <scope>import</scope>
        </dependency>
        <dependency>
        <groupId>dev.snowdrop</groupId>
        <artifactId>snowdrop-dependencies</artifactId>
        <version>{version-spring-boot-bom}</version>
        <type>pom</type>
        <scope>import</scope>
        </dependency>
        </dependencies>
        </dependencyManagement>
        ...
        </project>
        ```

   - If you use the BOM as a parent BOM, remove the following lines from the file:

        ```xml
        <project>
        ...
        <parent>
        <groupId>dev.snowdrop</groupId>
        ```
Add management dependencies for Spring Boot and Dekorate. You can find the latest supported versions for the dependencies in [Red Hat Runtimes: Component Details Overview](#).

```xml
<artifactId>snowdrop-dependencies</artifactId>
<version>{version-spring-boot-bom}</version>
</parent>

2. Add management dependencies for Spring Boot and Dekorate. You can find the latest supported versions for the dependencies in [Red Hat Runtimes: Component Details Overview](#).

```xml
<dependencyManagement>
  ...
  <dependency>
    <groupId>io.dekorate</groupId>
    <artifactId>dekorate-spring-bom</artifactId>
    <version>${dekorate.version}</version>
    <type>pom</type>
    <scope>import</scope>
  </dependency>
  ...
</dependencyManagement>

3. Add versions in the Red Hat-supported components included as dependencies. You can find the latest supported versions for the dependencies in [Red Hat Runtimes: Component Details Overview](#).

```xml
<dependencies>
  ...
  <!-- Dekorate -->
  <dependency>
    <groupId>io.dekorate</groupId>
    <artifactId>openshift-spring-starter</artifactId>
    <version>${dekorate.version}</version>
  </dependency>

  <!-- Hibernate -->
  <dependency>
    <groupId>org.hibernate</groupId>
    <artifactId>hibernate-core</artifactId>
    <version>${hibernate.version}</version>
    <exclusions>
      <exclusion>
        <groupId>org.apache.geronimo.specs</groupId>
        <artifactId>geronimo-jta_1.1_spec</artifactId>
      </exclusion>
    </exclusions>
  </dependency>
</dependencies>
<!-- Hibernate Validator-->
<dependency>
  <groupId>org.hibernate.validator</groupId>
  <artifactId>hibernate-validator</artifactId>
  <version>${hibernate-validator.version}</version>
</dependency>

<!-- Narayana -->
<dependency>
  <groupId>org.jboss.narayana.jta</groupId>
  <artifactId>narayana-jta</artifactId>
  <version>${narayana.version}</version>
</dependency>

<dependency>
  <groupId>org.jboss.narayana.jts</groupId>
  <artifactId>narayana-jts-integration</artifactId>
  <version>${narayana.version}</version>
</dependency>

<!-- RestEasy -->
<dependency>
  <groupId>org.jboss.resteasy</groupId>
  <artifactId>resteasy-spring-boot-starter</artifactId>
  <version>${resteasy-spring-boot-starter.version}</version>
</dependency>

<!-- Tomcat -->
<dependency>
  <groupId>org.apache.tomcat.embed</groupId>
  <artifactId>tomcat-embed-core</artifactId>
  <version>${tomcat.version}</version>
</dependency>

<dependency>
  <groupId>org.apache.tomcat.embed</groupId>
  <artifactId>tomcat-embed-el</artifactId>
  <version>${tomcat.version}</version>
</dependency>

<dependency>
  <groupId>org.apache.tomcat.embed</groupId>
  <artifactId>tomcat-embed-jasper</artifactId>
  <version>${tomcat.version}</version>
</dependency>

<dependency>
  <groupId>org.apache.tomcat.embed</groupId>
  <artifactId>tomcat-embed-websocket</artifactId>
  <version>${tomcat.version}</version>
</dependency>

<dependency>
  <groupId>org.apache.tomcat</groupId>
  <artifactId>tomcat-jdbc</artifactId>
  <version>${tomcat.version}</version>
</dependency>

<!-- Undertow -->
<dependency>
  <groupId>org.undertow</groupId>
  <artifactId>undertow-servlet</artifactId>
  <version>${undertow.version}</version>
</dependency>
4. Remove the following `hibernate-core` exclusions from the `spring-boot-starter-data-jpa` groupId, artifactId, version (GAV) if it is present:

```xml
<exclusion>
  <groupId>org.hibernate</groupId>
  <artifactId>hibernate-core</artifactId>
</exclusion>
```

5. If you use the `org.springframework.boot:spring-boot-maven-plugin`, add the Spring Boot version to the plugin.

```xml
<plugin>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-maven-plugin</artifactId>
  <version>${spring-boot.version}</version>
</plugin>
```

After you update the dependencies, you can build and launch your Spring Boot application. For more information, see Dekorate Guide for Spring Boot Developers.

**Additional resources**

- Dekorate Guide for Spring Boot Developers