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JAVA SPRING FRAMEWORK

Lab Guides

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RECORD OF CHANGES

No	Effective Date	Change Description	Reason	Reviewer	Approver
1	06/08/2024	Create a new Lab	Create new		VinhNV

Contents

CODE:	**JSFW_Lab_06_Opt1**
TYPE:	**SHORT**
LOC:	**200**
DURATION:	**60 MINUTES**

Java Spring Framework Introduction

Objectives:

- Learn to set up a Spring Boot project from scratch.

- Understand the Maven project structure and basic dependencies.

- Explore Spring Boot's main class and @SpringBootApplication.

Lab Specifications:

- In this lab, you will create a new University Management System (UMS) project that serves as the foundation for the next labs. You will start by setting up the project, configuring the basic structure, and exploring its main class.

Problem Description:
Trainees are required to:

- Create a Spring Boot project using Maven.

- Set up the main class with the @SpringBootApplication annotation.

- Understand the project structure and verify it runs correctly.

Prerequisites:
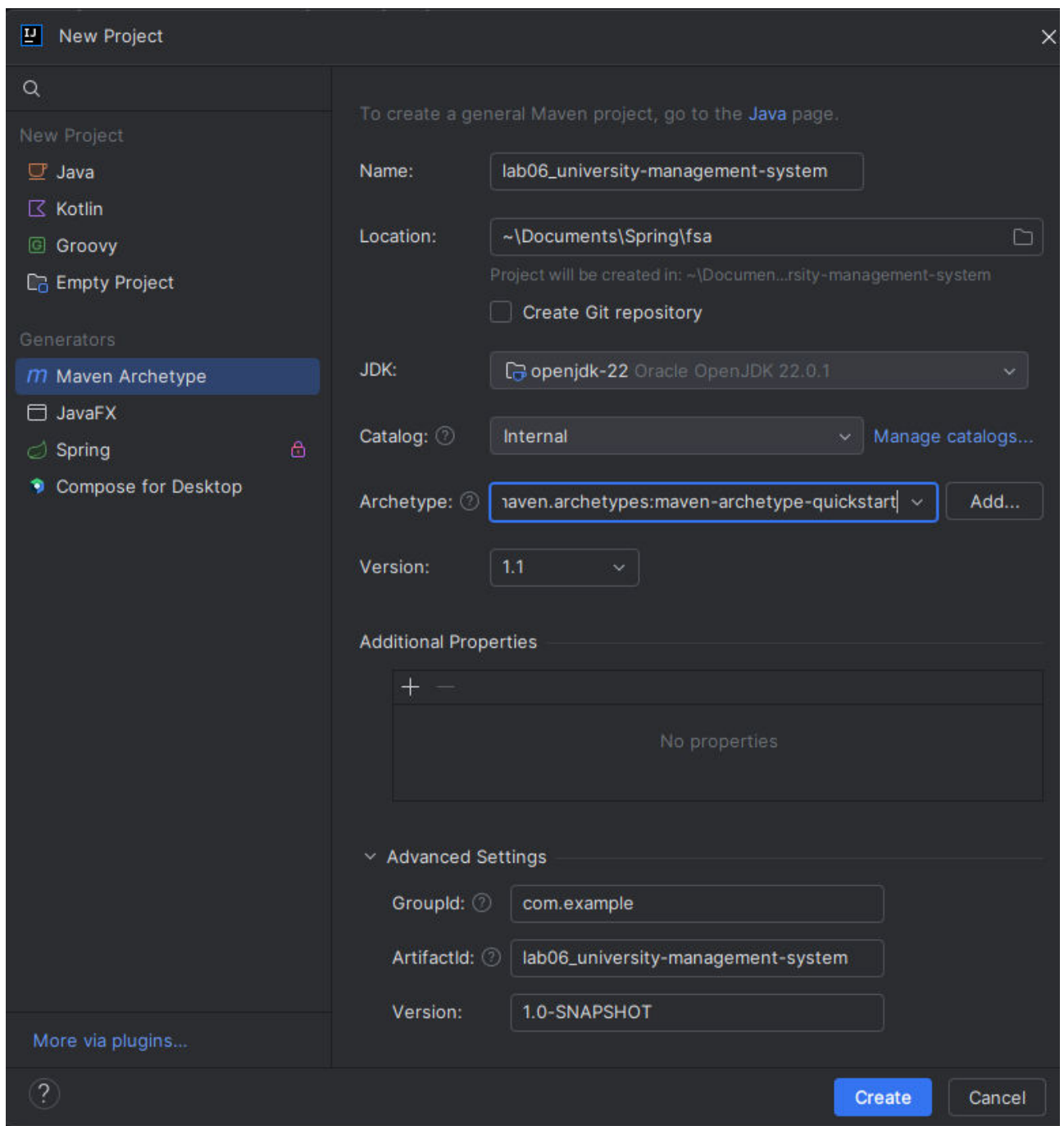
- Java SDK 8.0 or higher.

- Maven.

- Spring Boot 2.0 or higher.

Guidelines:
1. Step 1: Create a New Project:
Create a Maven project in your preferred IDE (e.g., IntelliJ, Eclipse).

Name the project university-management-system.

2. Step 2: Add Spring Boot Dependencies:

- Add this to pom.xml:

```xml
<parent>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-parent</artifactId>
  <version>2.7.5</version>
  <relativePath/>
</parent>
```

- And include the following dependencies:

```xml
<dependency>
  <groupId>org.springframework.boot</groupId>
```

```
    <artifactId>spring-boot-starter-web</artifactId>
</dependency>
```

3. Create the Main Class:

- In the src/main/java/com/example/ums, create a

  UniversityManagementSystemApplication.java file with the following code:

```java
package com.example;


import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class UniversityManagementSystemApplication {
    public static void main(String[] args) {
        SpringApplication.run(UniversityManagementSystemApplication.class,
args);
    }
}
```

4. Run the Application:

- Run the application using

- Verify Output:

The application should start successfully. Verify the console output with "Tomcat started" and that the app is running at http://localhost:8080.

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THE END