



Challenge

Implement Inversion of Control (IoC) Inside the Spring Application by Using Annotations

Manage the Employee and Department Objects of an Organization

A start-up builds an application that keeps records of all employees. As an initial step, the employees and their departments must be mapped in the application.

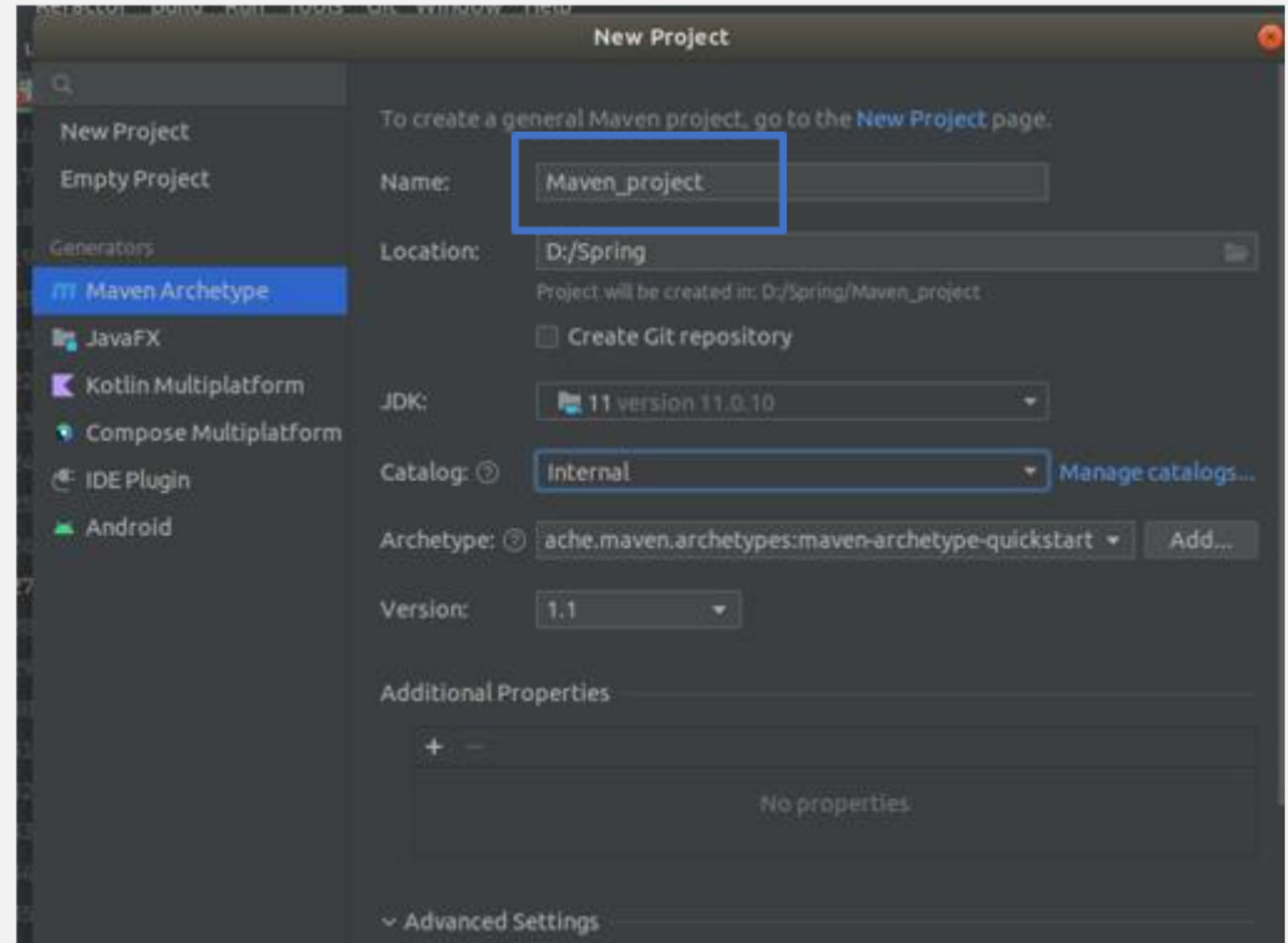
Build a Spring application that will manage the employee and department objects, and autowire dependencies in the application using **constructor-based** injection.

CHALLENGE



Implementation Environment

- Install the community edition of IntelliJ on your machine
- Click [here](#) to install
- After installation, open the IntelliJ IDE
- Click on **File -> New Project**
- Select the **Maven Archetype**
- Provide the name of the project and select the location
- Select the Archetype as maven-archetype-quickstart
- Provide groupId and artifactId in Advanced settings
- Click on **Create**



Challenge: Tasks

1. Add the Spring context dependency to the `pom.xml` file.
2. Create `Employee` and `Department` as domain classes.
3. Employees will have the following attributes: `employeeId`, `employeeName`, `employeeDOB`, and `department`.
4. Departments will have the following attributes: `deptId` and `deptName`.
5. The employee belongs to a department; build the association in the `Employee` class.
6. Manage the objects of the `Employee` and `Department` classes in Spring.
7. Autowire the department object inside the employee class using constructor-based injection.
8. Create a configuration class to define the beans.
9. Define an implementation class that will use the `ApplicationContext` object to get the values of the beans defined.
10. Display the details of the `Employee`.

Submission Instructions

- There is no boilerplate for the practice.
- Create a Git repository named **BEJ_C1_S3_Spring_IOC_MC_1**.
- After completing the challenge, push the code back to git using the below commands.

```
git init
git remote add origin <url>
git add .
git commit -m "comments on the push"
git push -u origin master
```

- Submit it for review.