ReadMe - Oompa Loompas

Overview

This report outlines the steps to set up, run, and deploy a Java-based application built with Maven and Spring Boot, along with an integrated Flask-based Python backend. The guide provides detailed instructions for configuring the environment, compiling code, and executing the application on both Java and Python platforms.

Running the Java Code (Terminal Version)

The terminal-based version of the application has **no additional dependencies**. To run:

1. Ensure the code folder is in the correct path.
2. Compile all the Java files.
3. Run the application by executing the Main.java file.

Running the Maven-Based Application

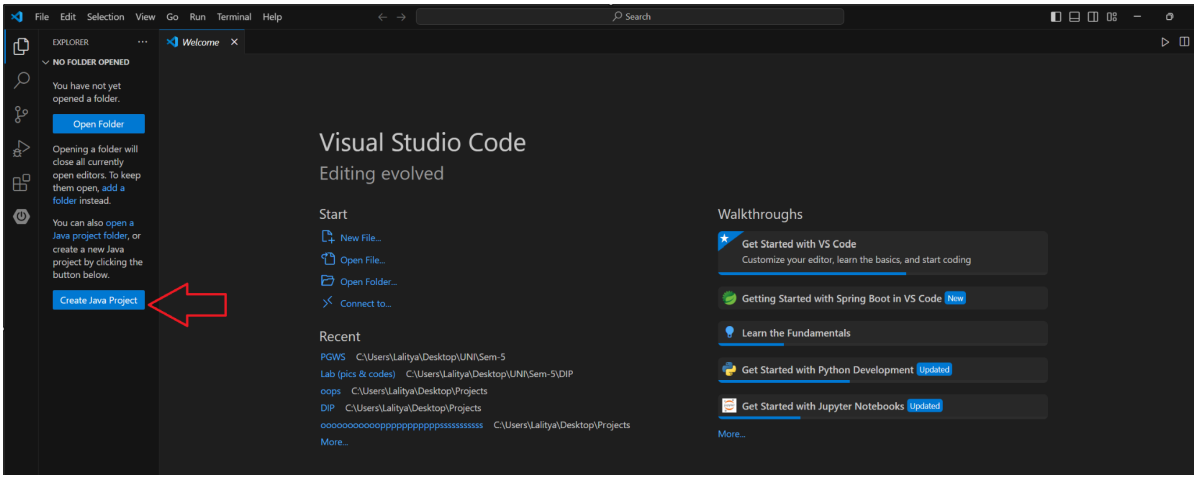
The main application is built as a **Maven Project** and uses **Spring Boot** for its framework. Below are the instructions to set it up and run.

Prerequisites

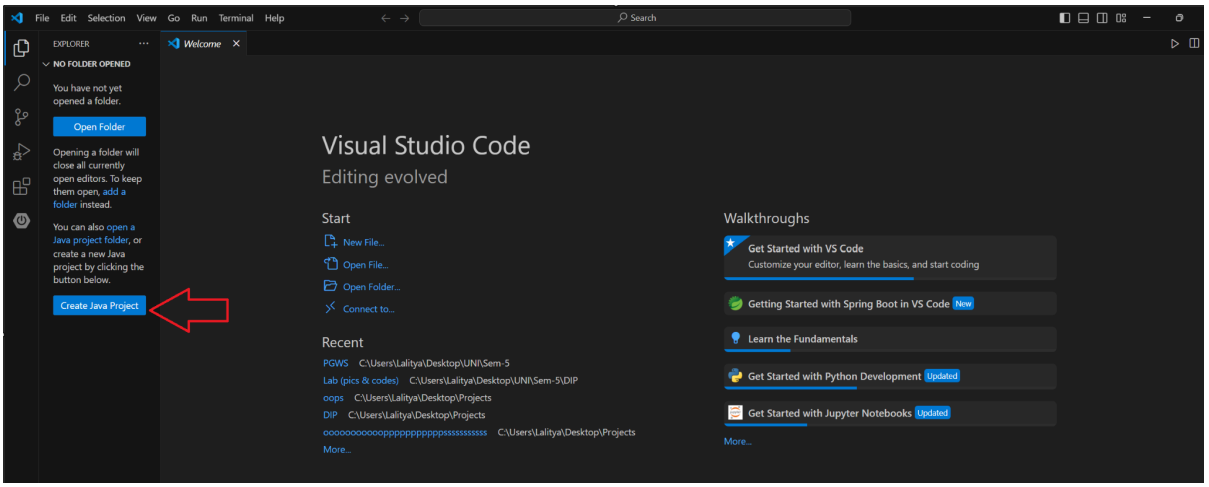
1. **Maven** must be installed.
2. Install **Spring Boot dependencies**.
3. If using **VS Code**, create a simple Maven project following the steps below.

How to Create a Simple Maven Project

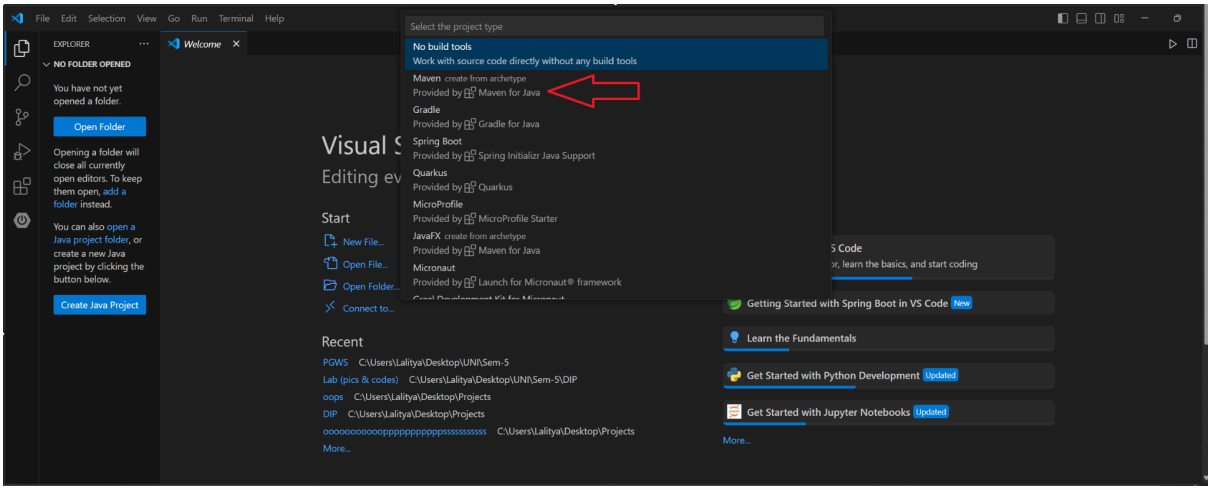
1. Open VS Code and click on **Create New Project**.



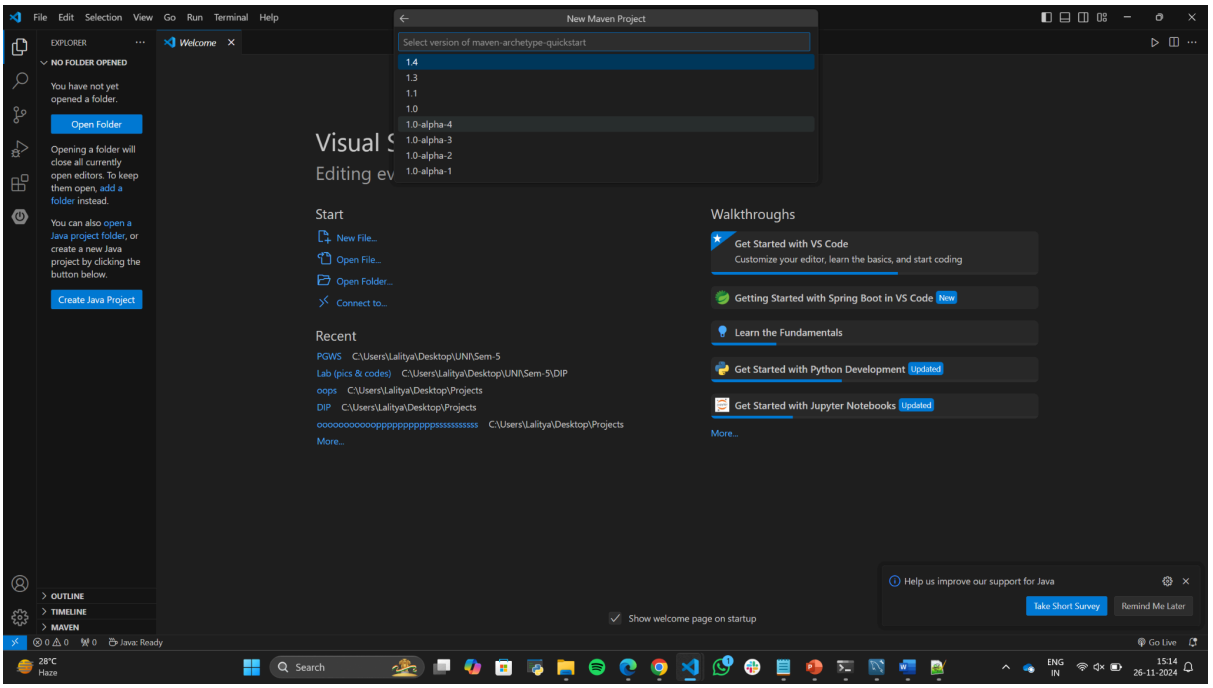
2. Select **Maven**.



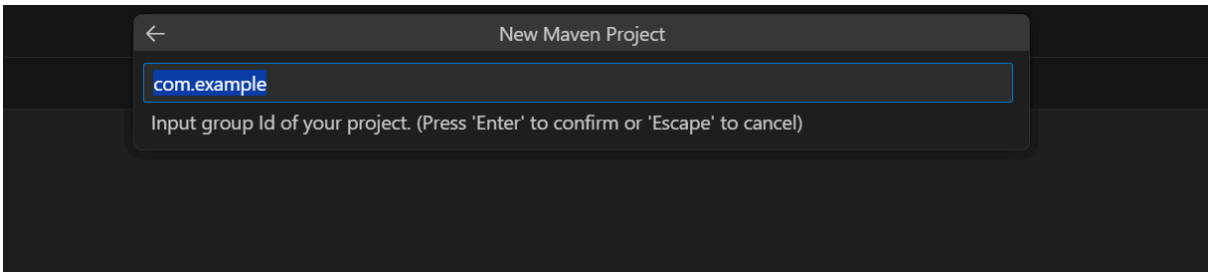
3. Choose **maven-archetype-quickstart** as the archetype.



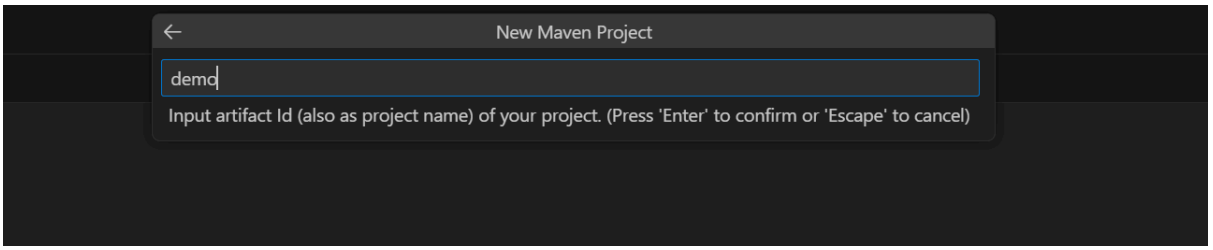
4. Set the version to **1.4**.



5. Enter the group ID as com.JavaRestfulAPIs



6. Name the project **eventmanagement**.



7. Choose a directory for the Maven project and note the path for future reference.

Project Directory Structure:

```
.vscode/
src/
└── main/
    └── java/
        └── com/
            └── eventmanagement/
                ├── controller/
                │   ├── EventController.java
                │   ├── RoomController.java
                │   └── UserController.java
                ├── model/
                │   ├── Event.java
                │   ├── Manage.java
                │   ├── Role.java
                │   ├── RoomInfo.java
                │   └── User.java
                ├── repository/
                │   ├── EventRepository.java
                │   ├── RoomRepository.java
                │   └── UserRepository.java
                ├── service/
                │   ├── EventService.java
                │   ├── EventServiceImpl.java
                │   ├── RoomService.java
                │   ├── RoomServiceImpl.java
                │   ├── UserService.java
                │   └── UserServiceImpl.java
                ├── utils/
                │   └── JwtTokenUtils.java
                └── Main.java
resources/
└── application.properties
target/
Pom.xml
```

Dependencies to Install (for VS Code):

1. **Maven for Java**

2. **Spring Boot Extension Pack**
3. **Spring Boot Tools**
4. **Spring Initializr Java Support**
5. **Spring Boot Dashboard**

Running the Maven Project

Build the Maven project using the terminal commands:
mvn clean
mvn install

1. Execute the application:
   c:; cd 'c:\Users\Lalitya\Desktop\Projects\JavaRestfulAPIs'; &
   'C:\Users\Lalitya\AppData\Local\Programs\Eclipse
   Adoptium\jdk-17.0.11.9-hotspot\bin\java.exe'
   '@C:\Users\Lalitya\AppData\Local\Temp\cp_ezmxn4cqipeuz8tf3inuangw7.argfile'
   'com.eventmanagement.Main'
2. **OR**
   Right-click on Main.java in VS Code and select **Run Java**.

Running the Flask Backend

The Python backend is built using **Flask**. Follow the steps below to set up and execute the code.

Prerequisites

1. Python installed on your machine.
2. Create a virtual environment and install the required dependencies.

Steps to Run the Flask Application

Navigate to the Flask project folder:
cd C:\Users\Lalitya\Desktop\Projects\FlaskPython\flask_app

1. Set up a virtual environment:
   python -m venv venv

   .\venv\Scripts\Activate

2. Install dependencies:
   pip install Flask

   pip install Flask-WTF WTForms

```
pip install Flask-SQLAlchemy

pip install flask-login

pip install requests
```

3. Run the Flask application:
   ```
   python app.py
   ```
4. Once the server starts, you will see output like this:

```
* Serving Flask app 'app'

 * Debug mode: on

WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.

 * Running on http://127.0.0.1:5000

Press CTRL+C to quit

 * Restarting with stat

 * Debugger is active!

 * Debugger PIN: 741-886-227
```

Accessing the Application

Ctrl+Click on the URL http://127.0.0.1:5000 to open the application in your web browser.

Important Notes

1. Always start the **Maven project (Java)** before running the **Flask backend (Python)**.
2. Ensure you follow the directory structure and paths as outlined to avoid configuration issues.