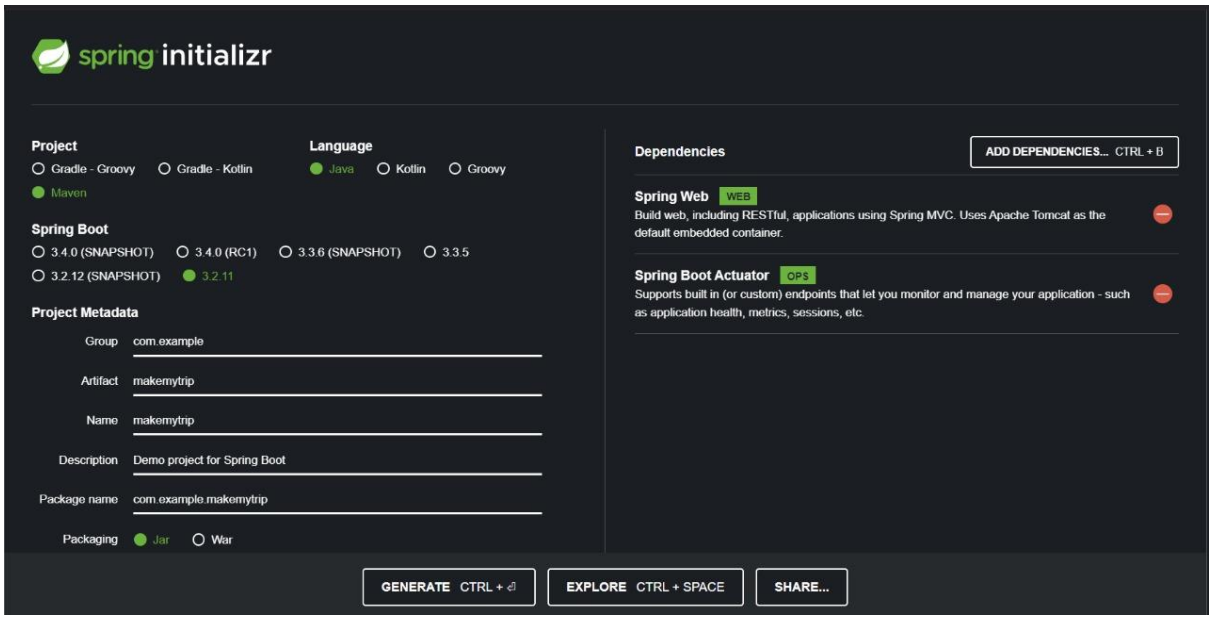
1st Assignment of devops

1. Create a New Project with Spring Initializr

- Go to Spring Initializr.
- Set up your project dependencies as needed.
- Generate and download the project.



2. Set Up Workspace

- Create a folder named myworkspace.
- Extract the downloaded project into the myworkspace folder.

3. Create a GitHub Repository

- Go to GitHub and create a new repository.
- Copy the repository URL.

4. Build and Run the Spring Boot Application

- Open a terminal and navigate to your project folder in myworkspace.
- Run the following commands:

bash

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```
mvn clean compile      # Compiles the project
mvn clean package      # Packages the project as a JAR file
mvn spring-boot:run    # Runs the Spring Boot application
```

5. Connect to GitHub

- Open your IDE (e.g., IntelliJ or VS Code).
- Click on **VCS** (Version Control System) and select **Git**.
- Connect to the GitHub repository by pasting the repository URL.
- Push the code to GitHub using:

bash

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```
git push origin master
```

6. Create Branches

- Create the following branches:
  - master
  - prod
  - preprod
  - dev
- In the terminal, use these commands:

bash

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```
git branch master    # Creates master branch (if not already created)
git branch prod      # Creates prod branch
git branch preprod   # Creates preprod branch
git branch dev       # Creates dev branch
```

7. Fetch and Work on the dev Branch

- Fetch the branches from the remote repository:

bash

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```
git fetch origin
```

- Check out the dev branch:

bash

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```
git checkout dev
```

- Stage, commit, and push changes to the dev branch:

bash

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```
git add .
git commit -m "Initial commit on dev branch"
git push origin dev
```

8. Merge dev into preprod on GitHub

- Go to your GitHub repository.
- Open a **Pull Request** to merge the dev branch into the preprod branch.

- Review and merge the pull request.