ASSIGNMENT 5

AIM: To build Java program using Jenkins.

LO MAPPED: LO1, LO3

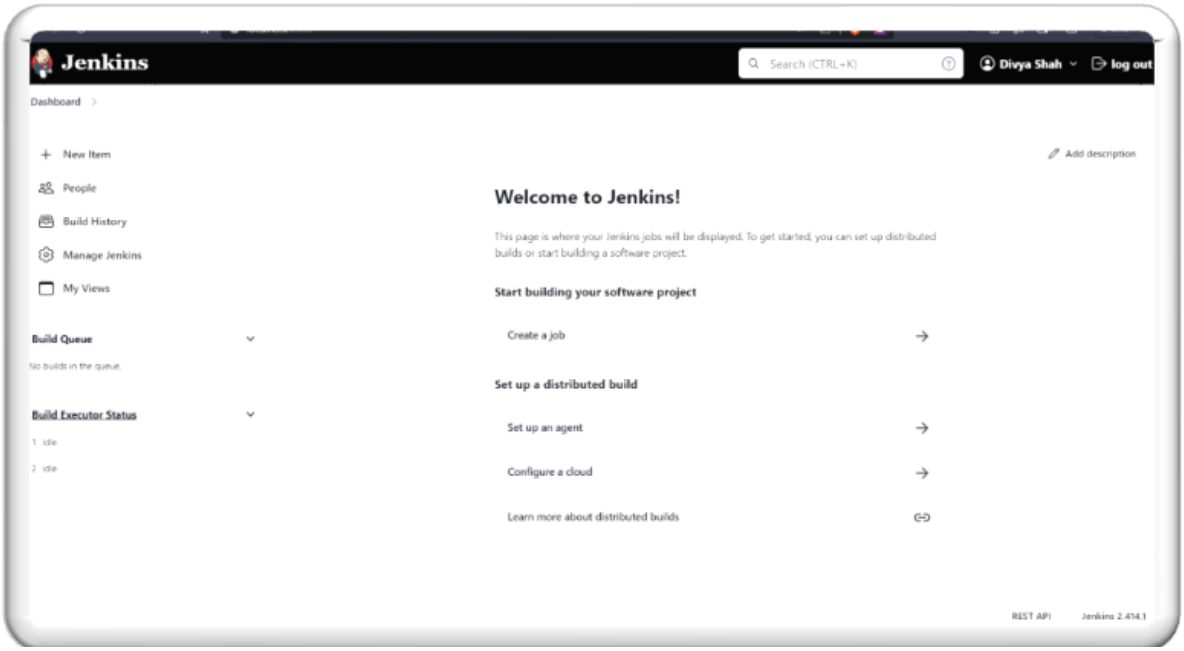
THEORY:

Jenkins is an open-source automation server that facilitates continuous integration (CI) and continuous delivery (CD) of software projects. It helps automate the build, test, and deployment processes, allowing development teams to streamline their development workflow and deliver high-quality software more efficiently. Jenkins provides an extensible plugin architecture that enables integration with various tools and technologies.

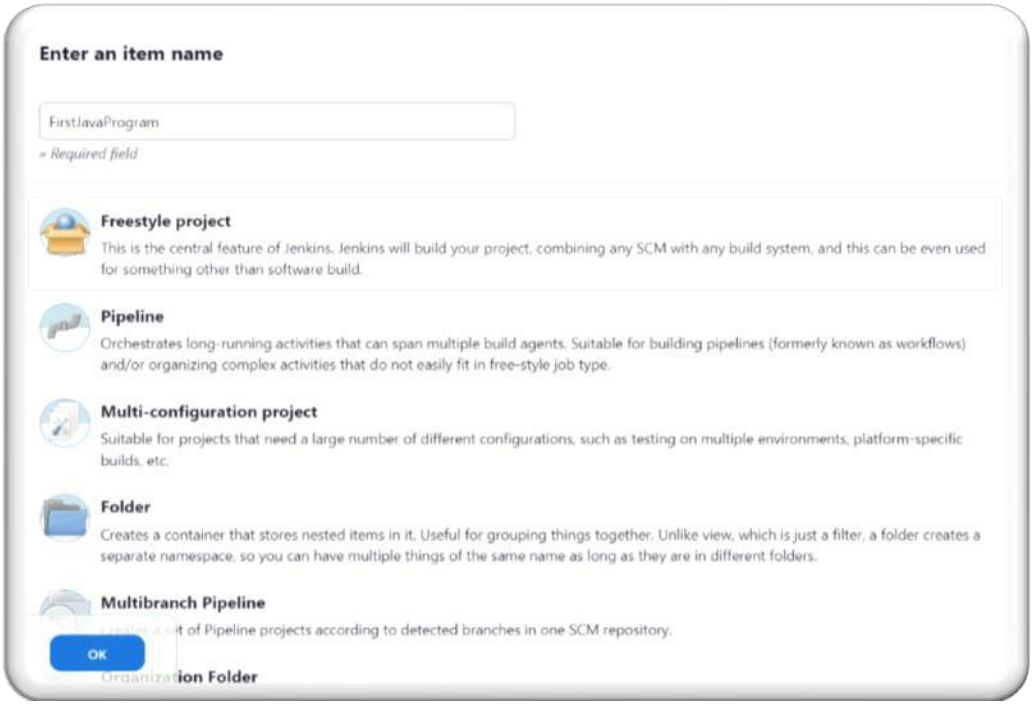
Steps to Build a Java Program Using Jenkins:

To build a Java program using Jenkins, you'll need to set up a Jenkins job that defines the build process. Below are the steps to accomplish this:

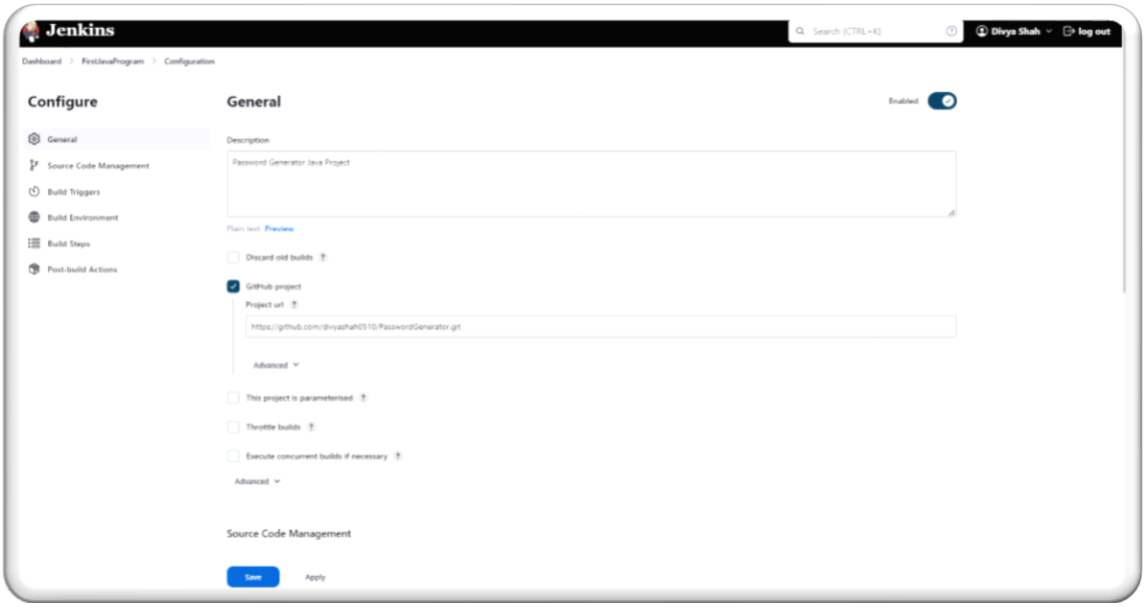
1. Install Jenkins: Download and install Jenkins on your system.

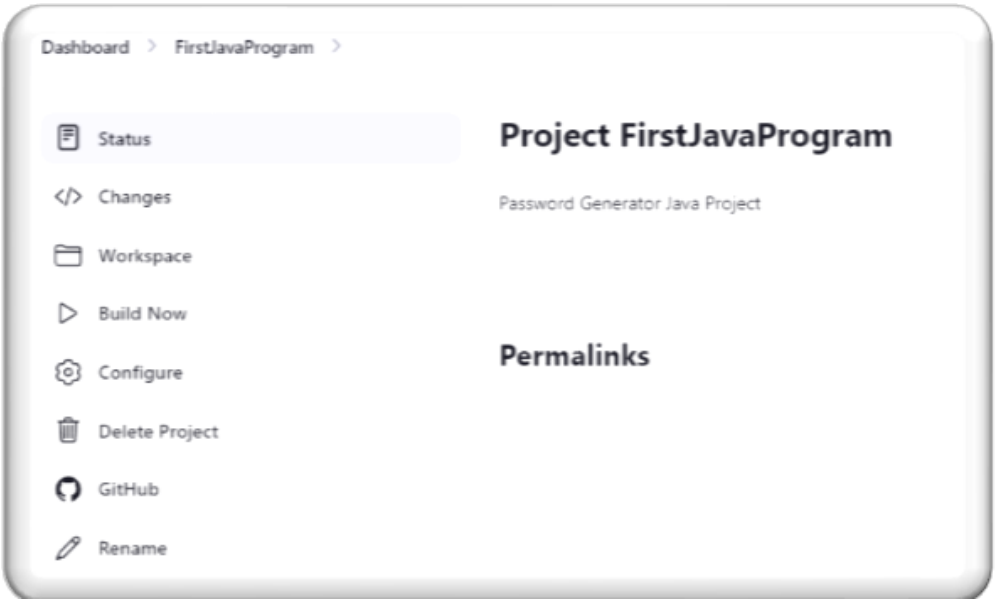


2. Create Job: Create a new freestyle project job in Jenkins.



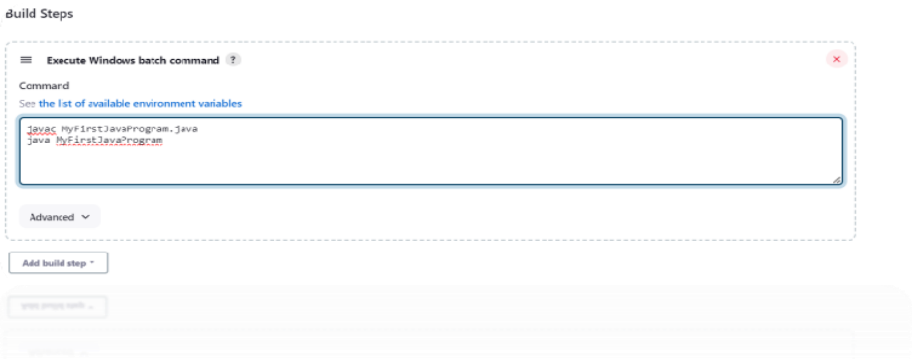
3. Source Code: Configure source code management (e.g., Git repository URL).



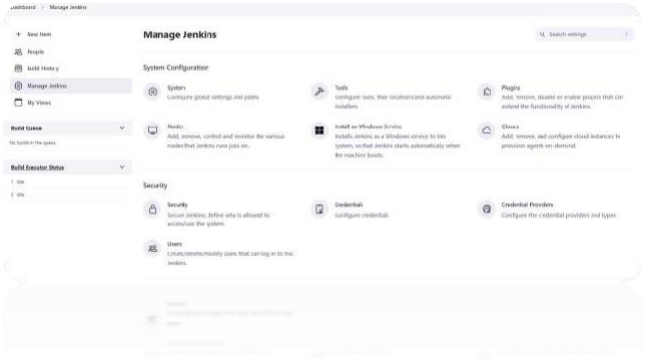

Dashboard
FirstJavaProgram
Status
Changes
Workspace
Build Now
Configure
Delete Project
GitHub
Rename
Project FirstJavaProgram
Password Generator Java Project
Permalinks


General
Enabled
Description
Hello World Java Program

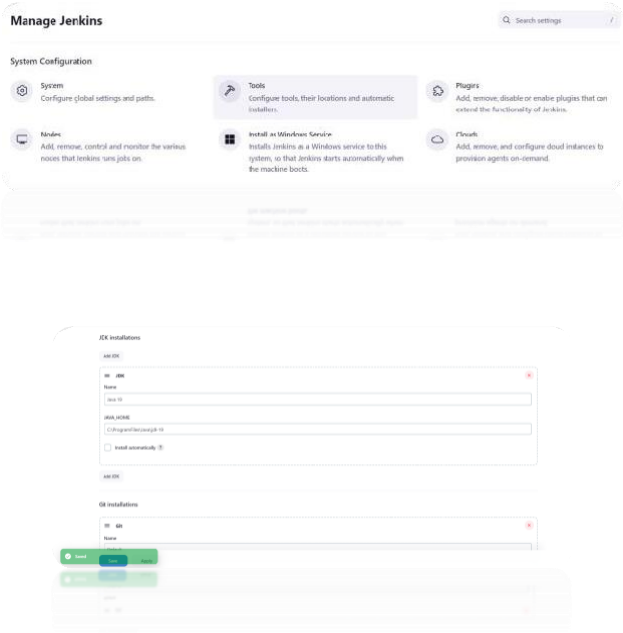

Advanced
Edited
Quiet period
Retry Count
Block build when upstream project is building
Block build when downstream project is building
Use custom workspace
Directory
C:\Users\Asus\OneDrive\Documents\NetBeansProjects\MyFirstJavaApp\src\com\java\main\MyFirstJavaProgram.java
Display Name
Keep the build logs of dependencies



4. Build Trigger: Set up build triggers, like periodic or repository changes.

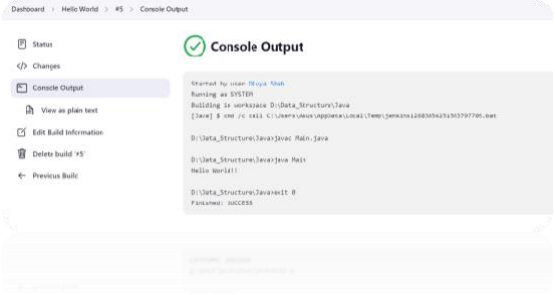


5. Build Steps: Add build step, e.g., "Invoke top-level Maven targets" for Maven projects with goals like clean install.

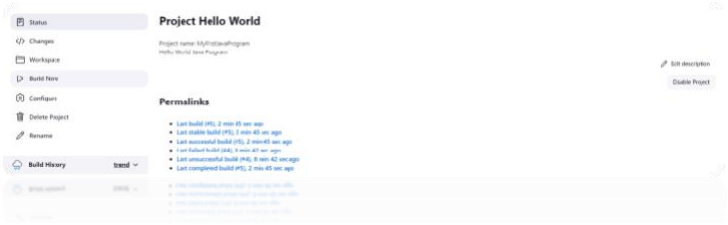


6. Post-Build Actions: Optionally configure actions after the build, like archiving artifacts or notifications.

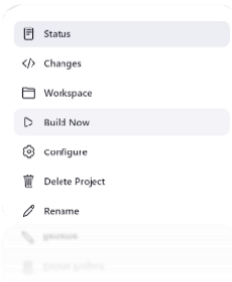
7. Save and Run: Save job settings and manually trigger the job.



8. Monitor Progress: Watch the Jenkins dashboard for build progress.



9. View Artifacts: Access build artifacts if configured.



CONCLUSION**:** By this assignment we learned how to build a java program using Jenkins.