

Name :- Aman Singh

Roll no :- 128

Batch :- T23

Assignment No 5

AIM: To build Java program using Jenkins.

LO1: To understand the fundamentals of DevOps engineering and be fully proficient with DevOps terminologies, concepts, benefits, and deployment options to meet your business requirements.

LO3: To understand the importance of Jenkins to Build and deploy Software Applications on server environment.

THEORY:

1. Create java Program

```
class HelloWorld {  
    public static void main(String[] args) {  
        System.out.println("Hello, World!");  
    }  
}
```

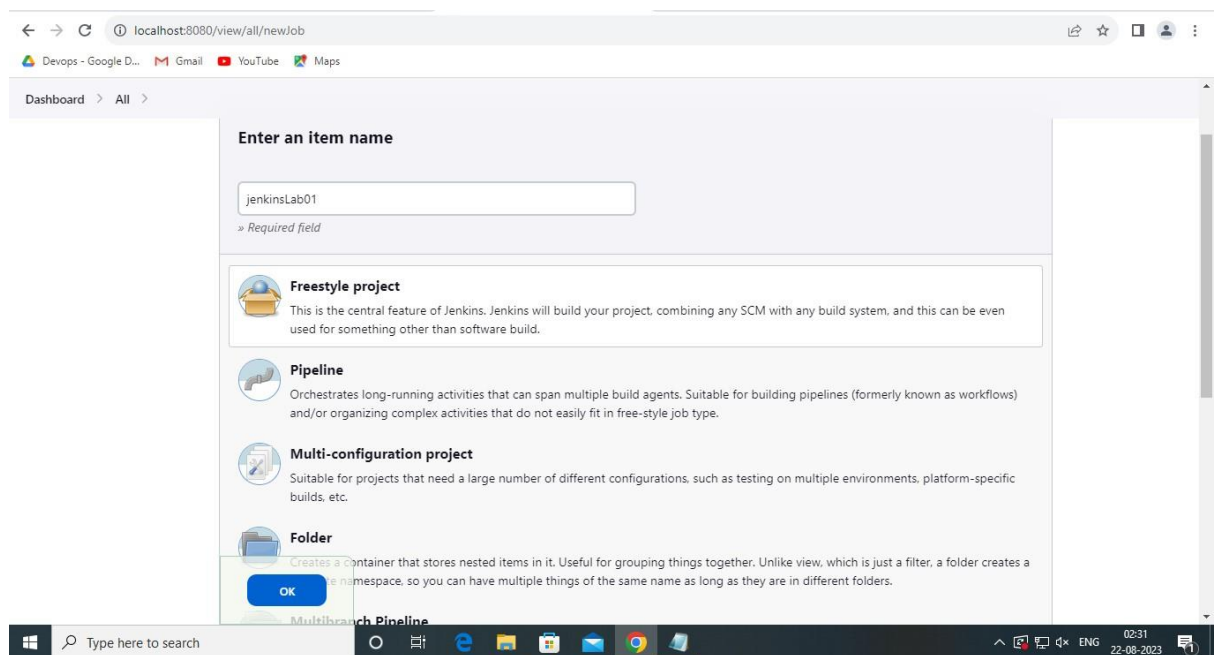
2. Create Jenkins job to run the program

In this select new item,

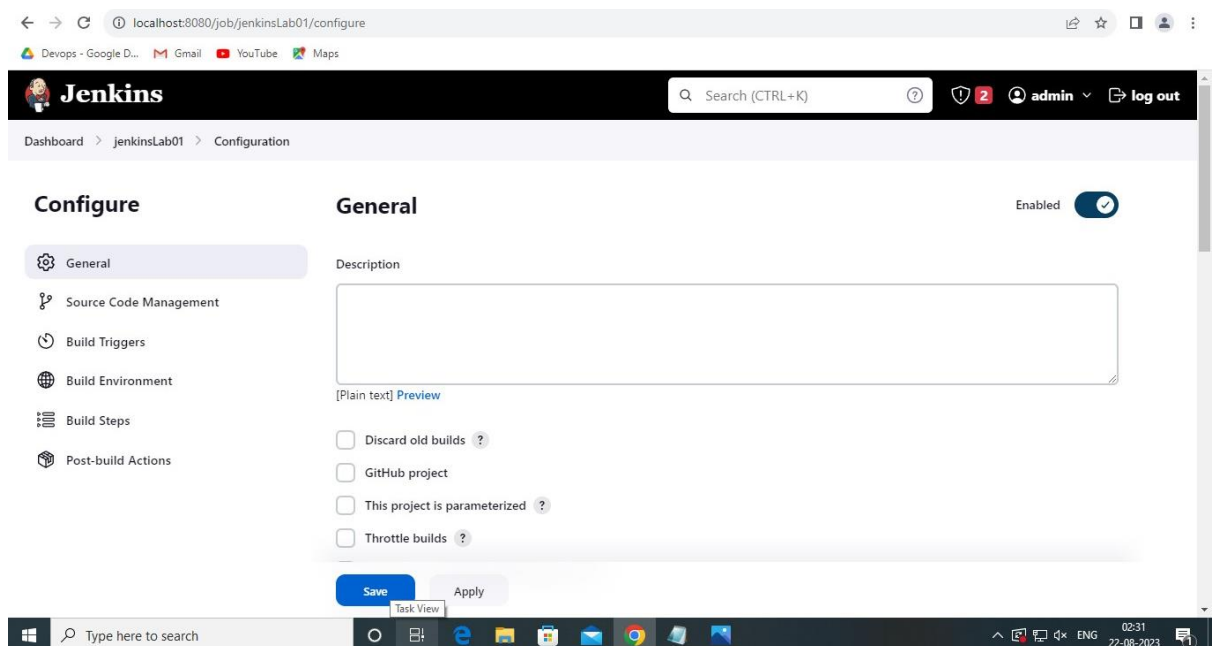
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Execute windows batch command



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The screenshot shows the Jenkins configuration page for a job named 'jenkinsLab01'. The left sidebar contains a 'Configure' section with a list of tabs: General, Source Code Management, Build Triggers, Build Environment, Build Steps, and Post-build Actions. The 'Build Steps' tab is selected. The main content area shows a step titled 'Execute Windows batch command'. The 'Command' field contains the text: `javac Hello.java` and `java Hello`. Below the command field is an 'Advanced' dropdown menu. At the bottom of the step configuration, there is an 'Add build step' button. Below the step configuration, there is a 'Post-build Actions' section with an 'Add post-build action' button. At the bottom of the page, there are 'Save' and 'Apply' buttons. The browser's address bar shows 'localhost:8080/job/jenkinsLab01/configure'. The Windows taskbar at the bottom shows the search bar and various application icons.

This screenshot is similar to the one above, showing the Jenkins configuration page for 'jenkinsLab01'. The 'Build Steps' tab is still selected. The 'Execute Windows batch command' step is visible, with the same command text: `javac Hello.java` and `java Hello`. The 'Advanced' dropdown menu is also present. The 'Add build step' button is at the bottom of the step configuration. Below this, the 'Post-build Actions' section is visible with an 'Add post-build action' button. At the bottom of the page, there are 'Save' and 'Apply' buttons. The browser's address bar shows 'localhost:8080/job/jenkinsLab01/configure'. The Windows taskbar at the bottom shows the search bar and various application icons. In the bottom right corner of the Jenkins interface, the text 'REST API' and 'Jenkins 2.401.3' is visible.

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The top screenshot shows the Jenkins web interface for 'Project jenkinsLab01'. The left sidebar contains a menu with options: Status, Changes, Workspace, Build Now (highlighted), Configure, Delete Project, and Rename. The main content area shows 'Jenkins lab 01 hello world' and 'Permalinks'. The 'Build History' section shows a single build from Aug 22, 2023, 2:36 AM.

The bottom screenshot shows the 'Console Output' for build #2. The output text is as follows:

```
Started by user admin
Running as SYSTEM
Building in workspace C:\ProgramData\Jenkins\jenkins\workspace\jenkinsLab01
[jenkinsLab01] $ cmd /c call C:\Windows\TEMP\jenkins10977850124706872333.bat

C:\ProgramData\Jenkins\jenkins\workspace\jenkinsLab01>javac Hello.java

C:\ProgramData\Jenkins\jenkins\workspace\jenkinsLab01>java Hello
Hello, World!

C:\ProgramData\Jenkins\jenkins\workspace\jenkinsLab01>exit 0
Finished: SUCCESS
```

CONCLUSION:

Hence, we successfully built Java programs using Jenkins.