Practice for Lesson 2: Build and Run Jobs on Jenkins

Practices for Lesson 2

Overview

In these practices, you will build and run a job on Jenkins. Further, schedule a job to execute periodically and also integrate GitHub repository source code with Jenkins job.

Practice 2-3: Integrate GitHub Repository with Jenkins

Overview

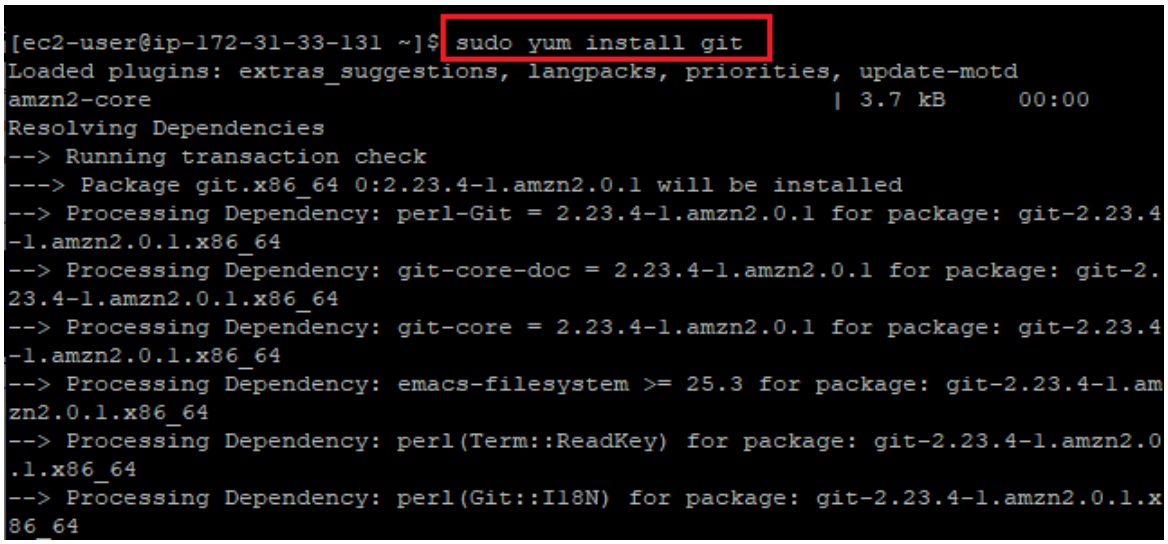
In this practice, you will learn to integrate GitHub source code with Jenkins job.

Assumptions

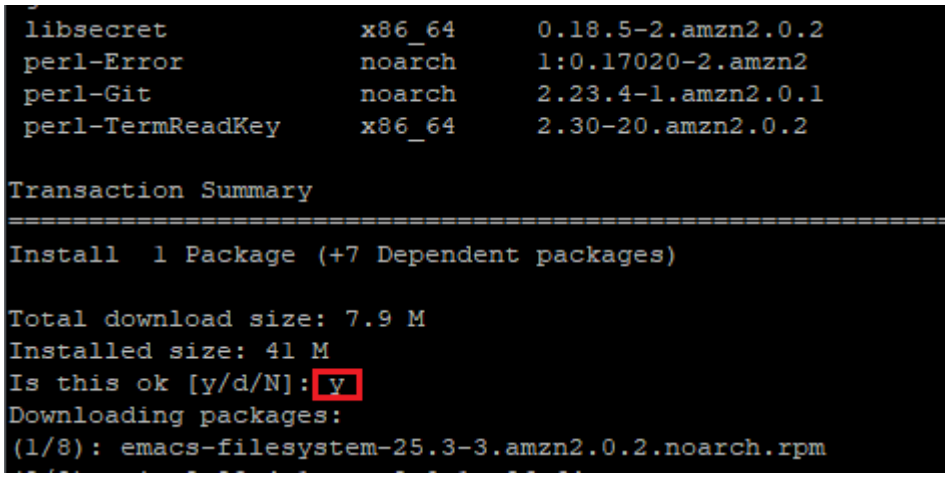
1. You should have completed the Practice of Lesson 2-2
2. User should have created a **GitHub account**.

Tasks

1. Install **Git** in the AWS EC2 instance for **Jenkins** integration.
   a. Connect to the AWS EC2 instance from putty. Execute the command shown below to install **Git** in the AWS EC2 instance.



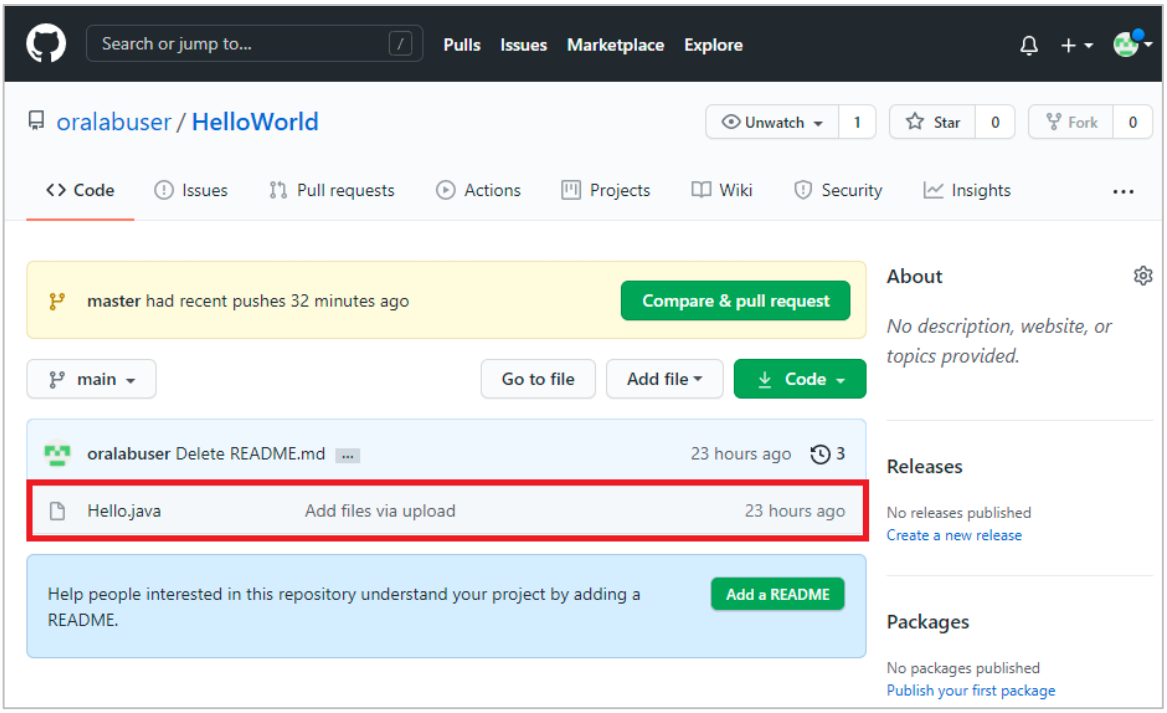
   b. Type "**y**" when the terminal prompts as shown below to proceed with the installation process.



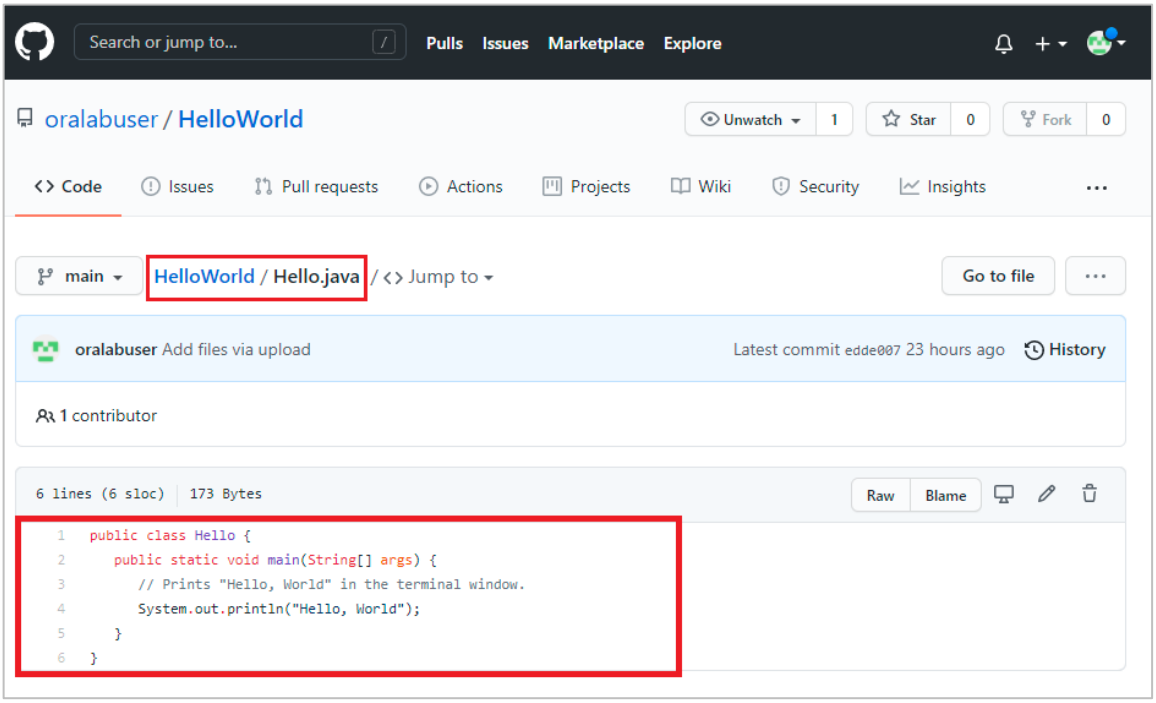
   c. **Git** is successfully installed in the AWS EC2 instance as shown below.

```
  Verifying  : git-core-2.23.4-1.amzn2.0.1.x86_64
  Verifying  : 1:perl-Error-0.17020-2.amzn2.noarch
  Verifying  : 1:emacs-filesystem-25.3-3.amzn2.0.2.noarch

Installed:
  git.x86_64 0:2.23.4-1.amzn2.0.1

Dependency Installed:
  emacs-filesystem.noarch 1:25.3-3.amzn2.0.2
  git-core.x86_64 0:2.23.4-1.amzn2.0.1
  git-core-doc.noarch 0:2.23.4-1.amzn2.0.1
  libsecret.x86_64 0:0.18.5-2.amzn2.0.2
  perl-Error.noarch 1:0.17020-2.amzn2
  perl-Git.noarch 0:2.23.4-1.amzn2.0.1
  perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2

Complete!
```

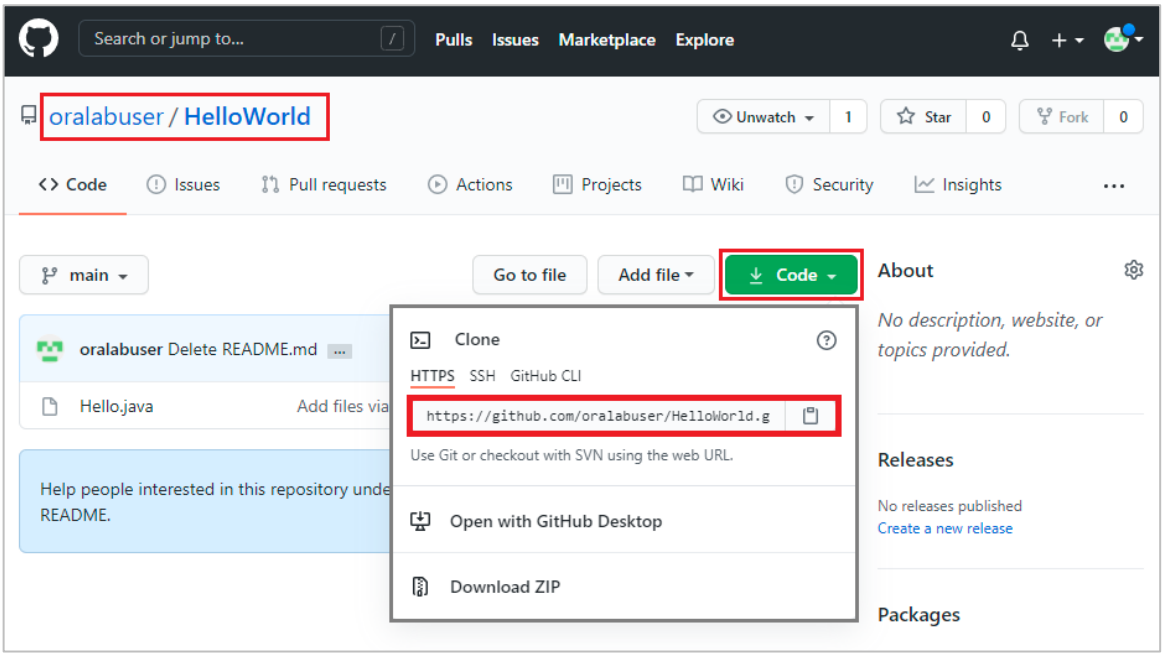
2. To create a basic java program in the **GitHub** repository.
   a. Create or add a **Hello.java** file in the **GitHub** Repository as shown below.



   b. The **Hello.java** file consists of the java program to print the “Hello World” message on successful execution as shown below.

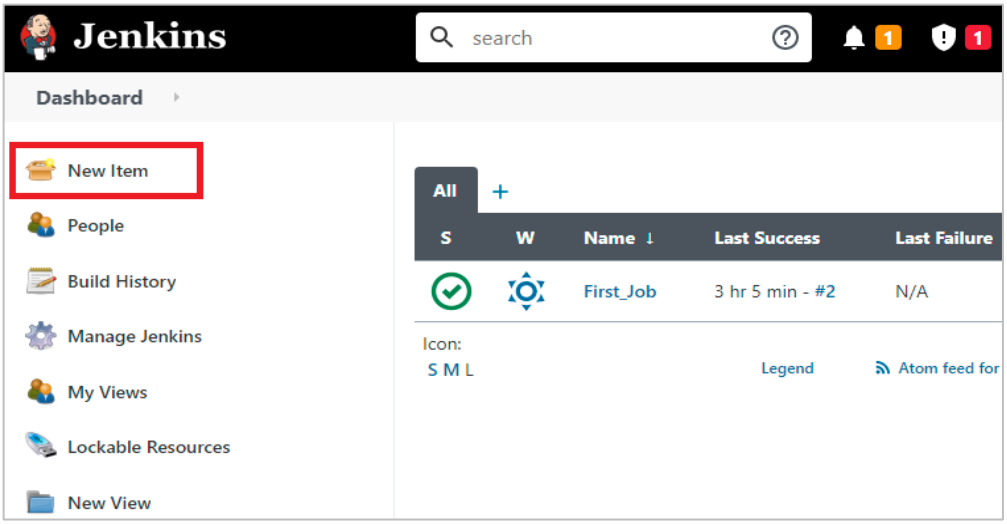


c. Navigate to the repository page and select **Code**. Copy the **HTTPS** URL link of the repository as shown below.

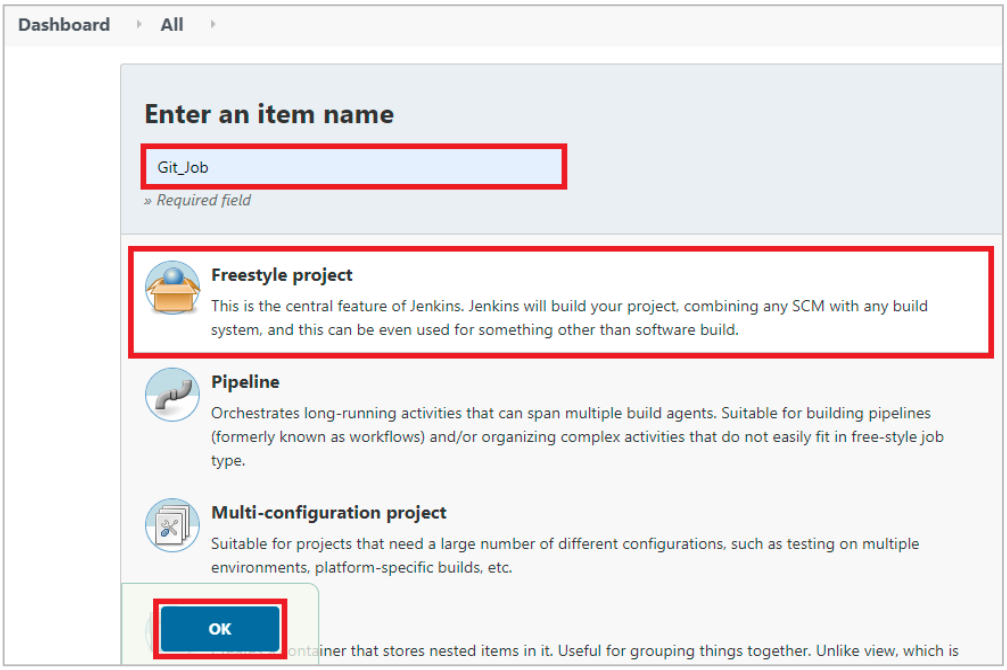


3. Integrate GitHub source code with Jenkins Job to execute.

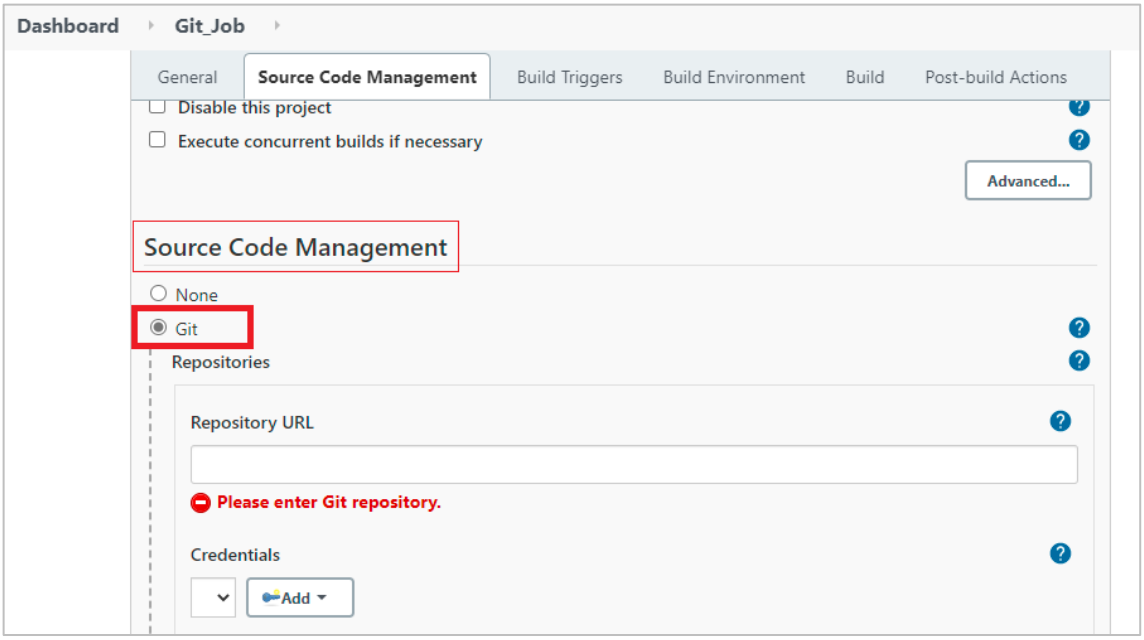
   a. In Jenkins instance Dashboard, navigate to the menu and select **New Item** to create a new job as shown below.



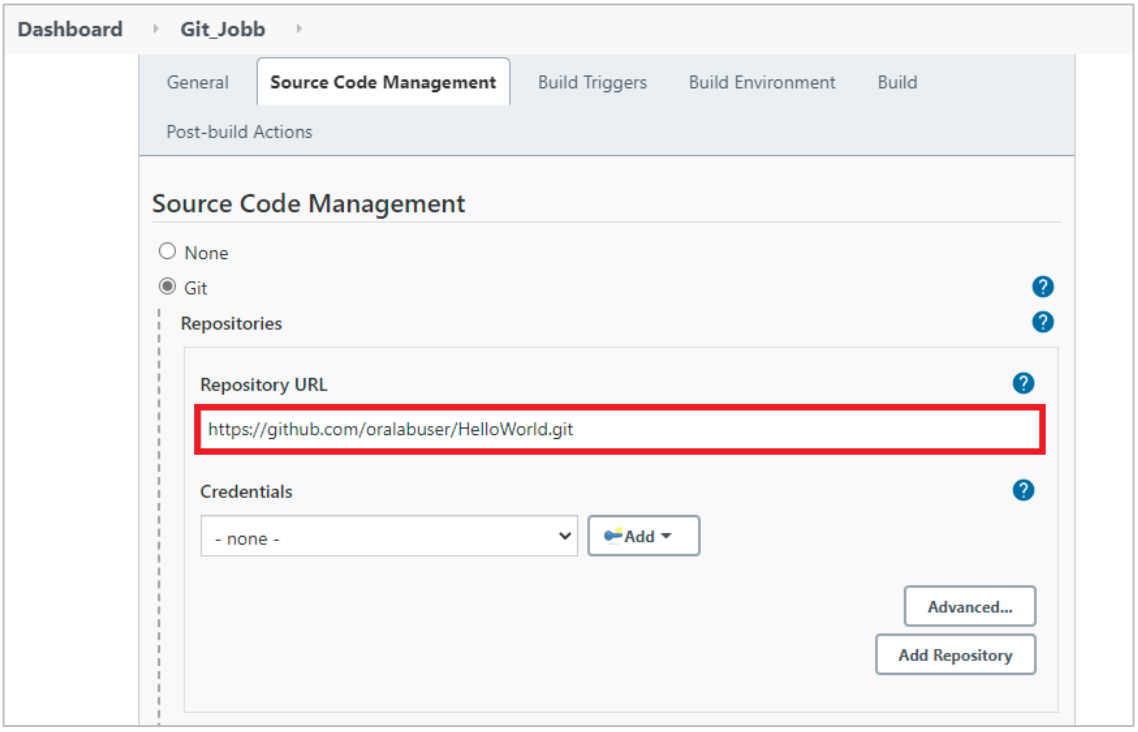
b. Provide the name for the Job in Jenkins, select **Freestyle project** and click **OK** as shown below.



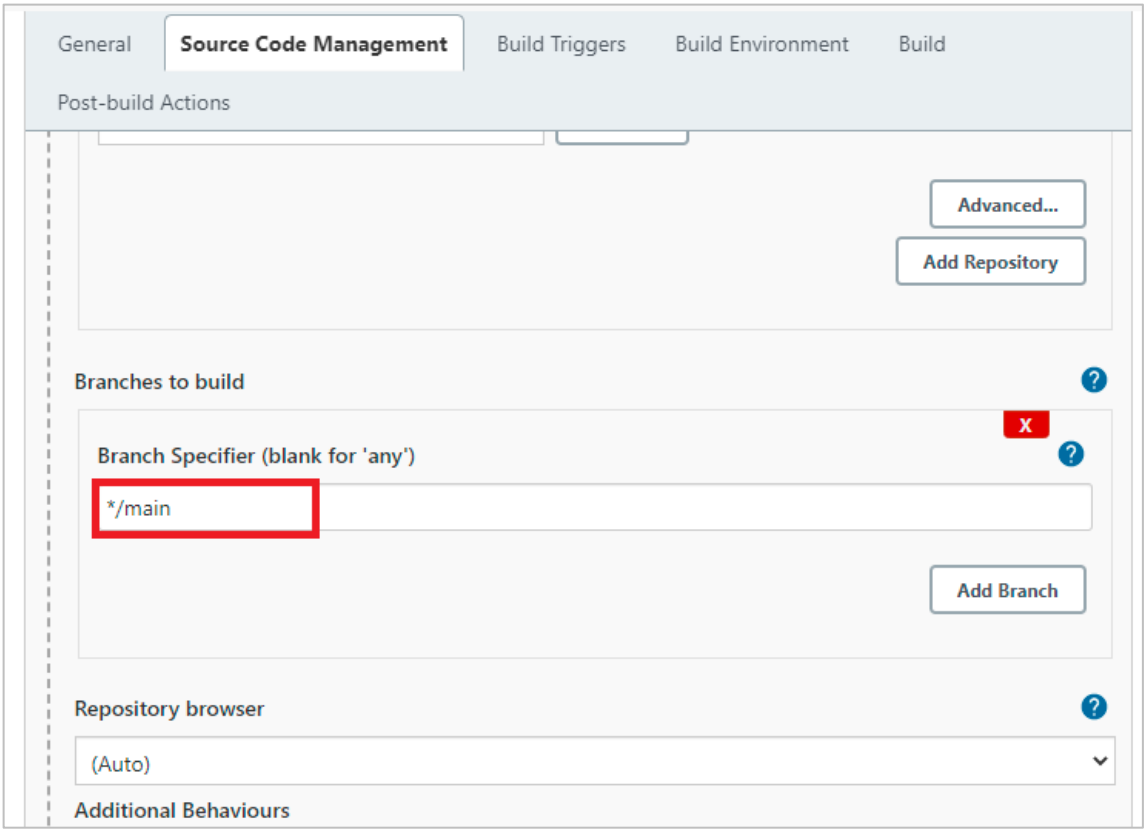
c. Scroll down to **Source Code Management** and select **Git** as shown below.



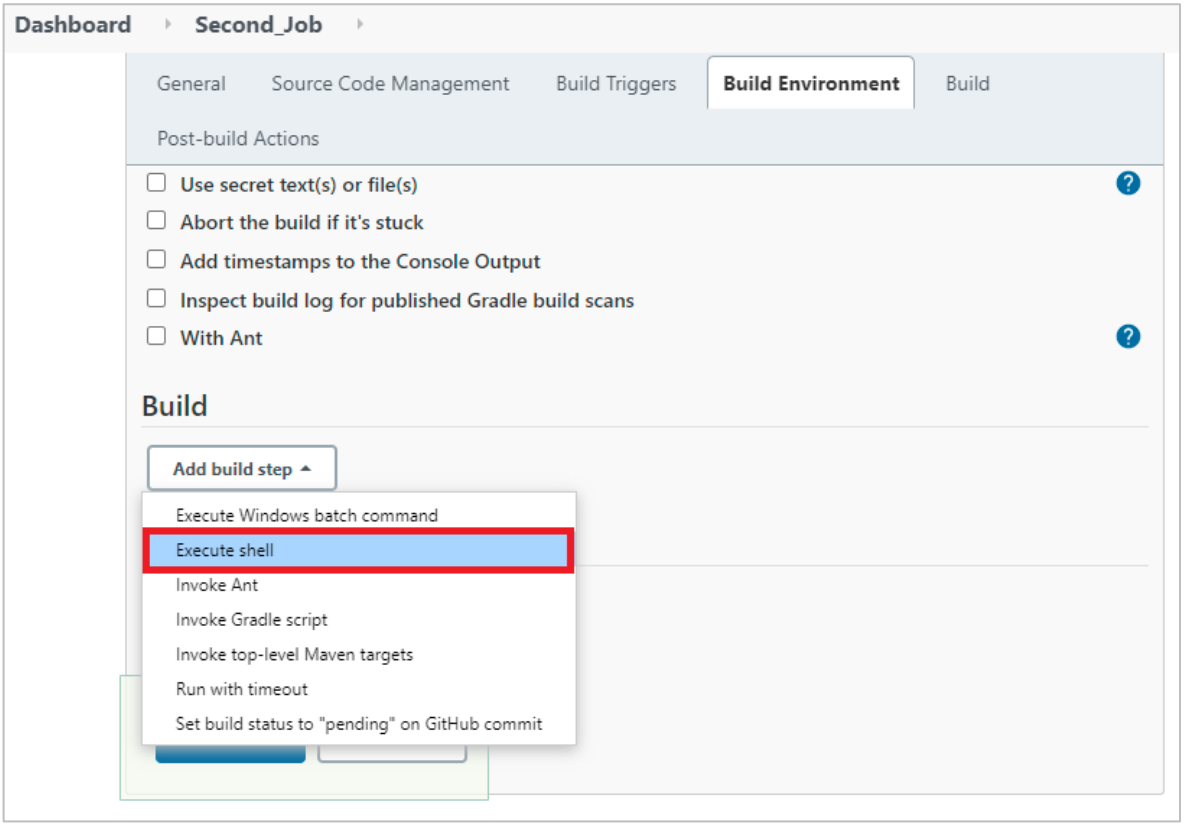
d. Paste the GitHub repository HTTPS URL link in the **Repository URL** as shown below.



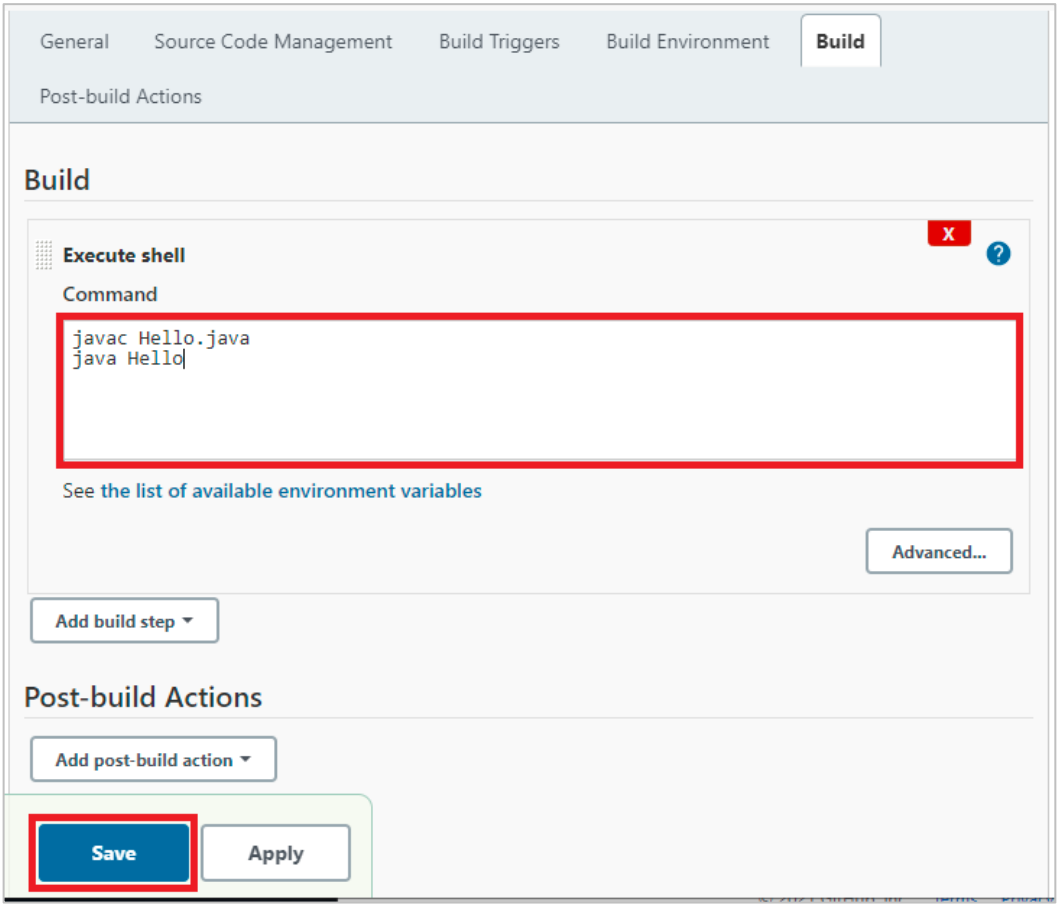
e. In **Branches to build** provide the specified branch name from the GitHub repository.



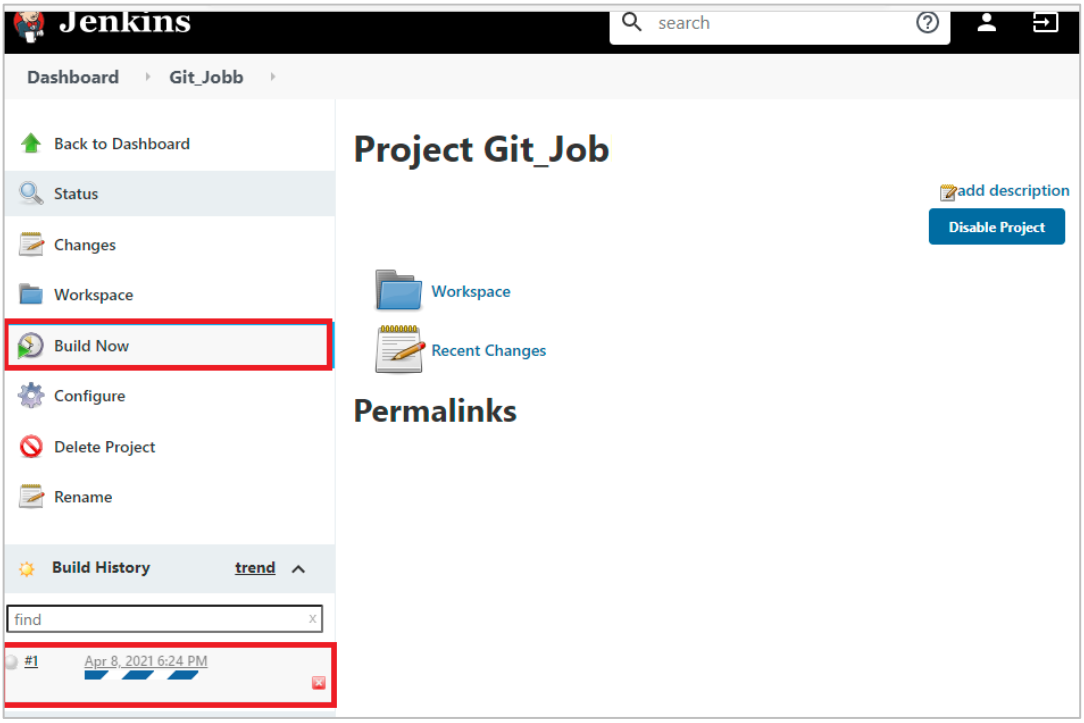
f. Scroll down to the **Build** section, click **Add build step** and select **Execute shell** as shown below.



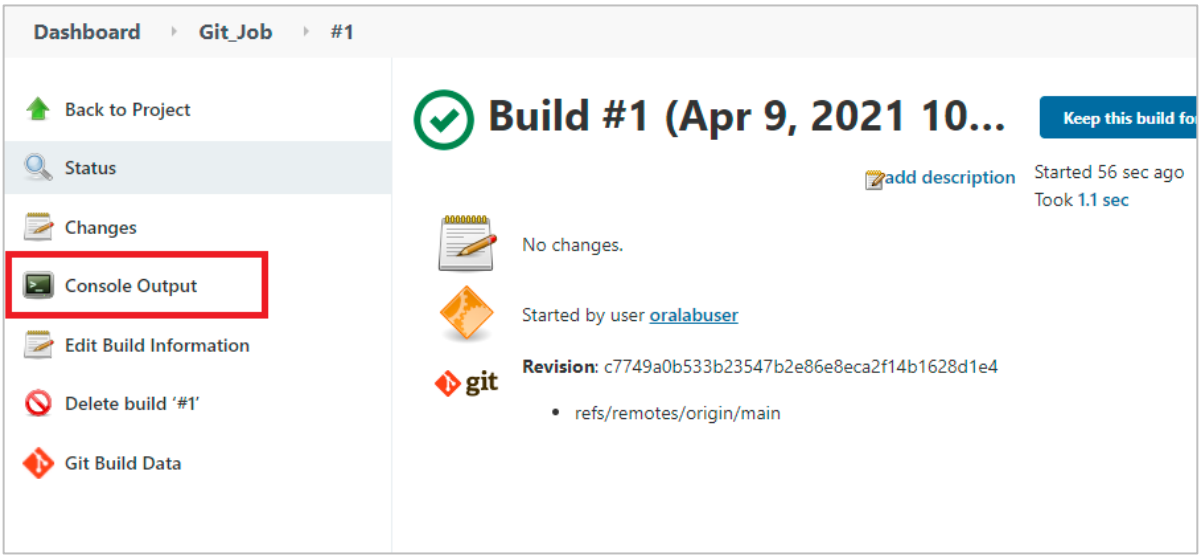
g. In **Execute shell** provide the command to execute Java program and click **Save** as shown below.



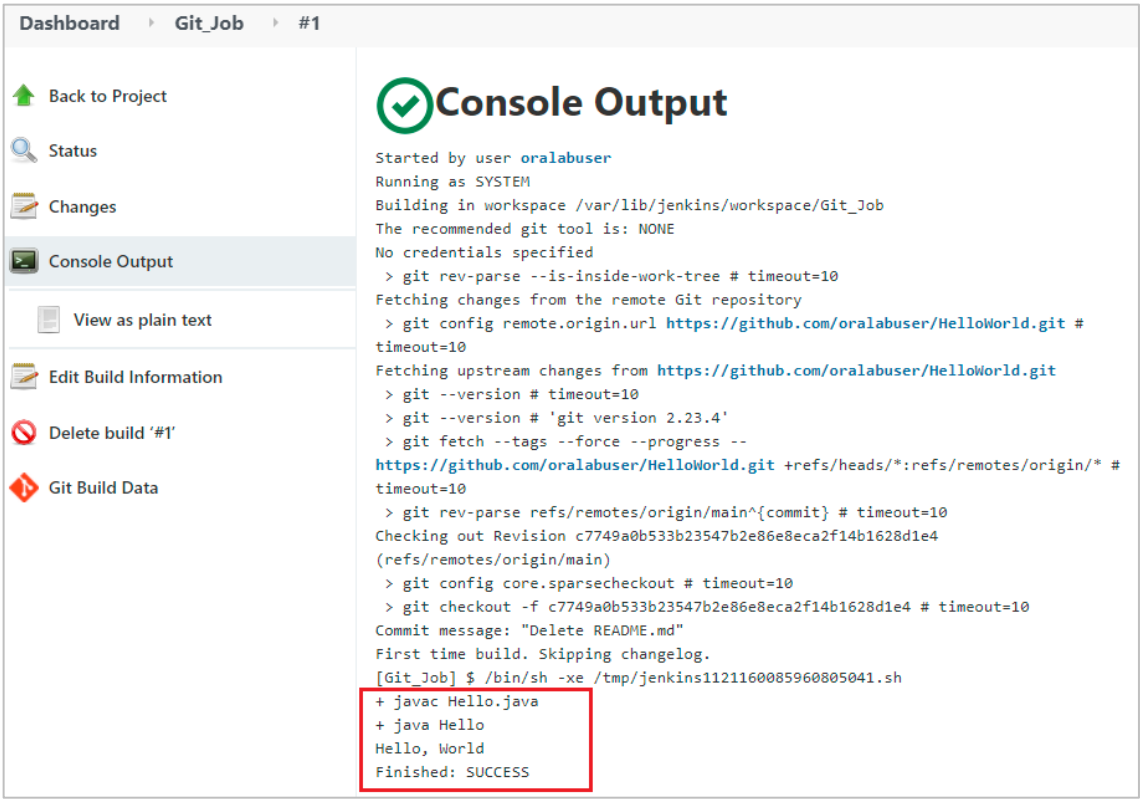
h. In the project page, select **Build Now** to build the job in Jenkins and click on the build created under **Build History** as shown below.



i. In the **Build** page, click **Console Output** to view the output of the Git job.



j. On successful execution, verify the output which executes the java file in the GitHub repository specified as shown below.



4. Close the terminal, and logout from the AWS Management console and Jenkins Dashboard.