

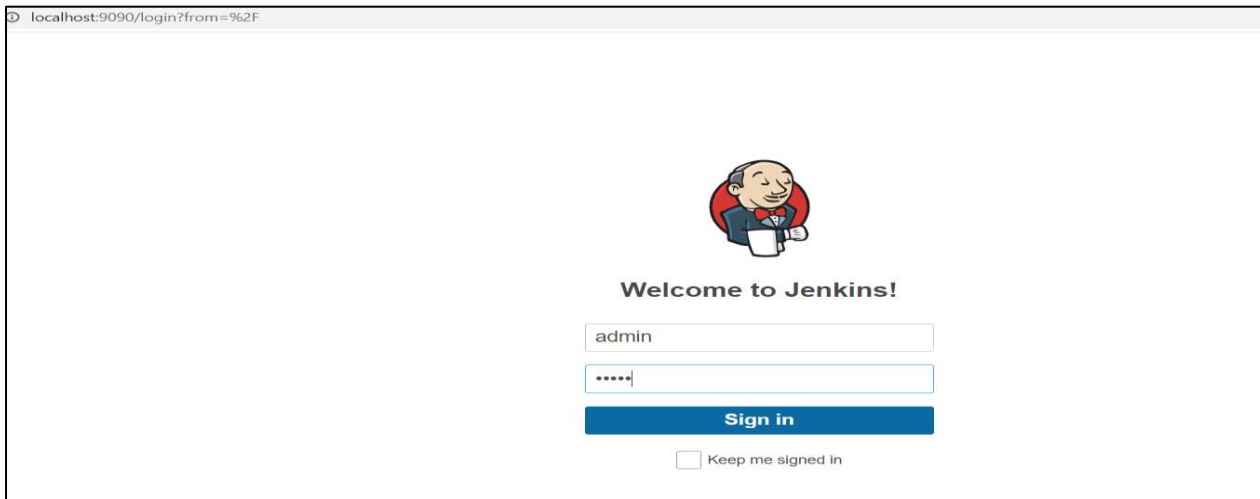
Module 3: Build Jobs and Jenkins Security

Demo Document - 1

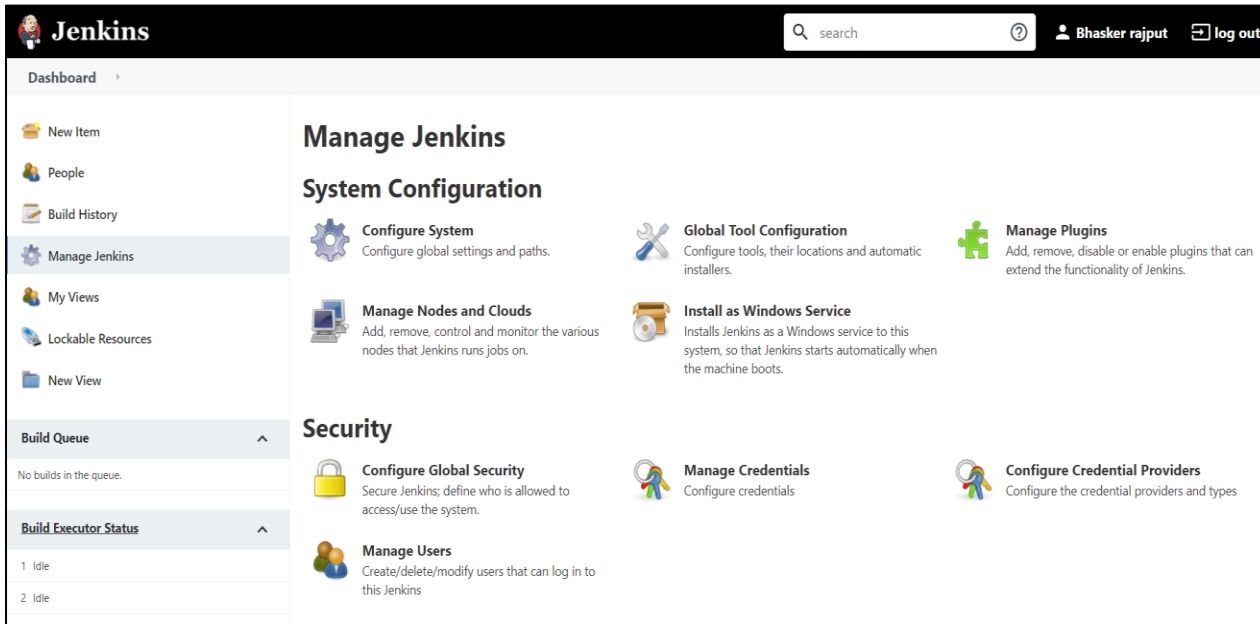
edureka!

Demo: Creating a basic Jenkins pipeline code.

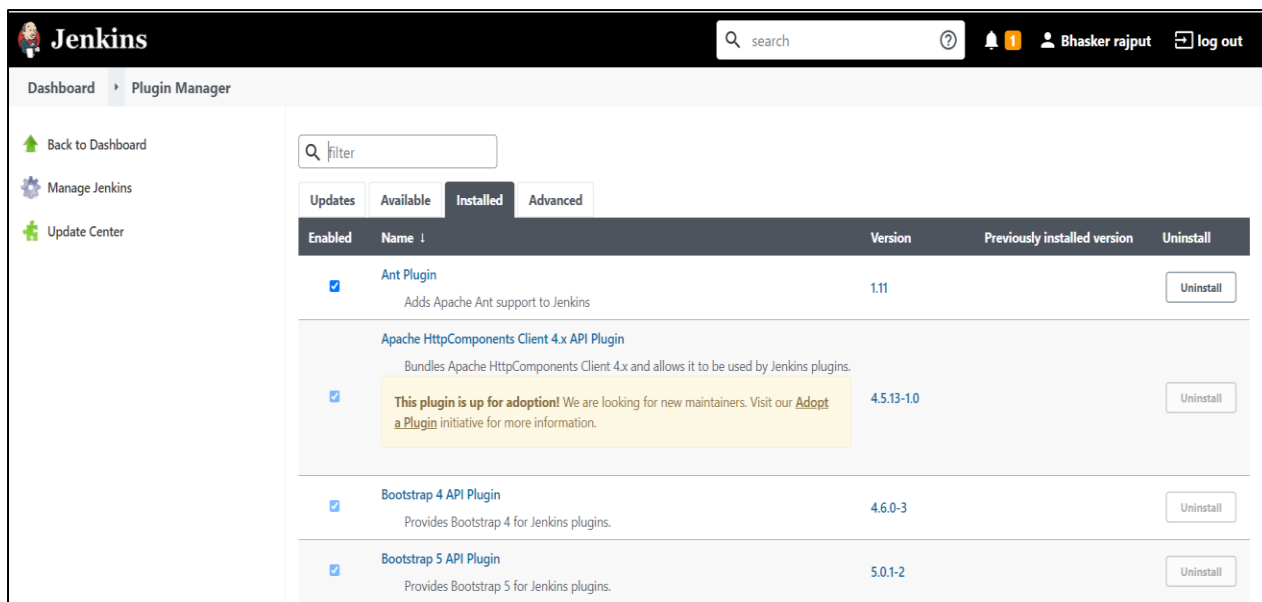
1. Login to your Jenkins console using your 'USER ID' and 'Password'.



2. Now on your Jenkins Dashboard select 'Manage Jenkins' from the left side menu. You are now landed on 'Manage Jenkins' homepage as shown in below screenshot. Now click on 'Manage Plugins' option.



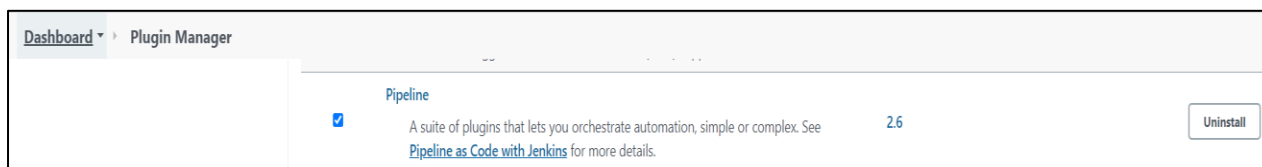
3. Now navigate to 'Installed' option and search for 'Pipeline' plugin.



The screenshot shows the Jenkins Plugin Manager interface. The 'Installed' tab is selected, displaying a list of installed plugins. The table has columns for 'Enabled', 'Name', 'Version', 'Previously installed version', and 'Uninstall'. The following table represents the data shown in the screenshot:

Enabled	Name	Version	Previously installed version	Uninstall
<input checked="" type="checkbox"/>	Ant Plugin Adds Apache Ant support to Jenkins	1.11		Uninstall
<input checked="" type="checkbox"/>	Apache HttpComponents Client 4.x API Plugin Bundles Apache HttpComponents Client 4.x and allows it to be used by Jenkins plugins. This plugin is up for adoption! We are looking for new maintainers. Visit our Adopt a Plugin initiative for more information.	4.5.13-1.0		Uninstall
<input checked="" type="checkbox"/>	Bootstrap 4 API Plugin Provides Bootstrap 4 for Jenkins plugins.	4.6.0-3		Uninstall
<input checked="" type="checkbox"/>	Bootstrap 5 API Plugin Provides Bootstrap 5 for Jenkins plugins.	5.0.1-2		Uninstall

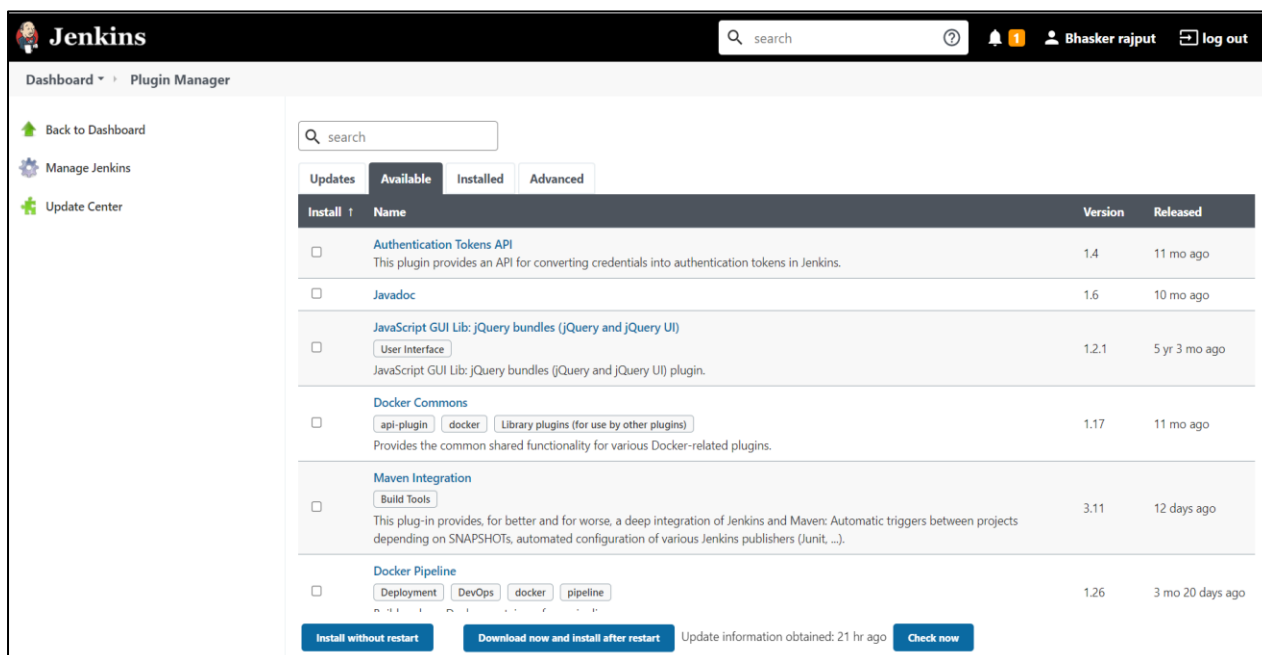
4. You can verify the 'Pipeline' plugin as per that below screenshot.



The screenshot shows the Jenkins Plugin Manager interface with the 'Pipeline' plugin selected. The table has columns for 'Enabled', 'Name', 'Version', and 'Uninstall'. The following table represents the data shown in the screenshot:

Enabled	Name	Version	Uninstall
<input checked="" type="checkbox"/>	Pipeline A suite of plugins that lets you orchestrate automation, simple or complex. See Pipeline as Code with Jenkins for more details.	2.6	Uninstall

5. If 'Pipeline' plugin is already not installed, then you can click on 'Available' option and search for 'Pipeline' plugin to install it.

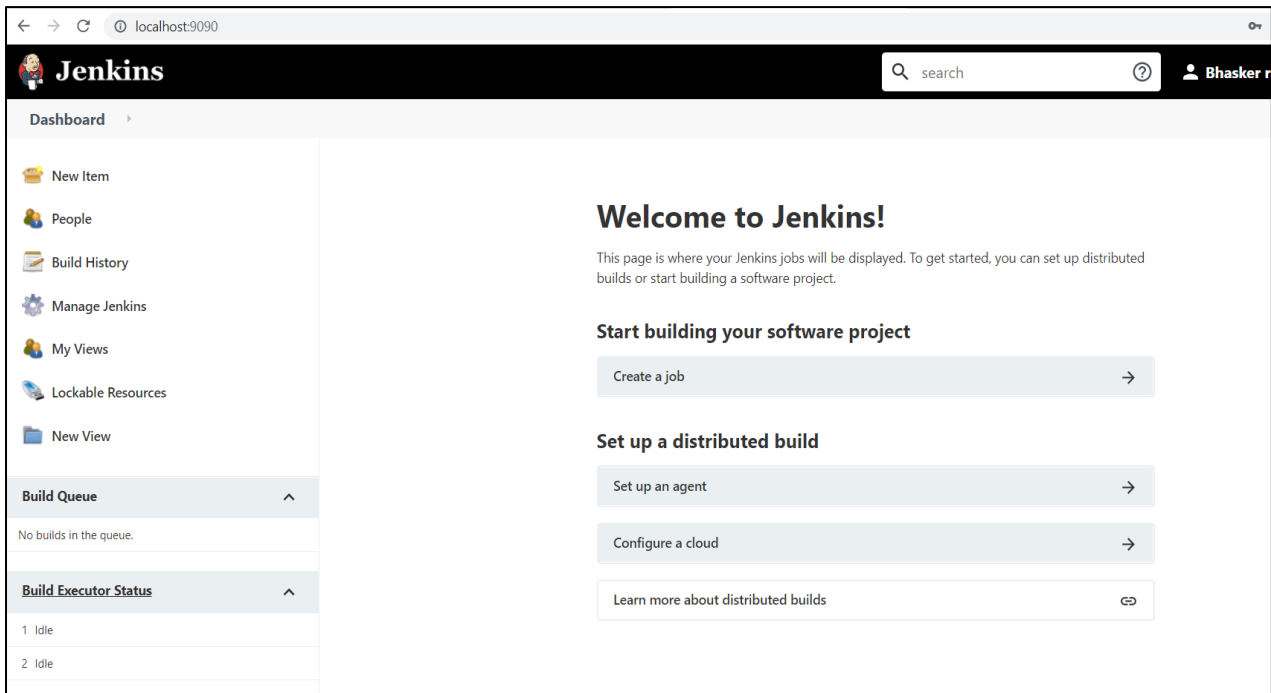


The screenshot shows the Jenkins Plugin Manager interface with the 'Available' tab selected. The table has columns for 'Install', 'Name', 'Version', and 'Released'. The following table represents the data shown in the screenshot:

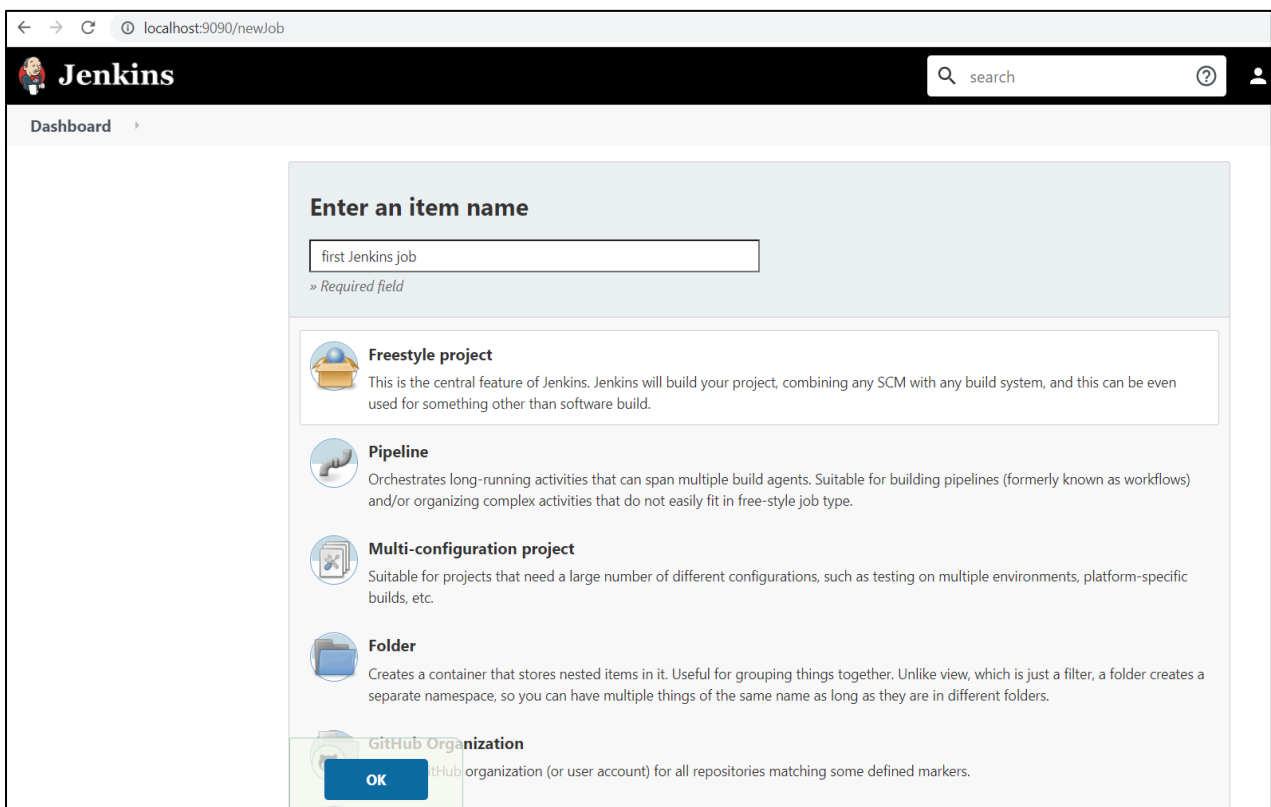
Install	Name	Version	Released
<input type="checkbox"/>	Authentication Tokens API This plugin provides an API for converting credentials into authentication tokens in Jenkins.	1.4	11 mo ago
<input type="checkbox"/>	Javadoc	1.6	10 mo ago
<input type="checkbox"/>	JavaScript GUI Lib: jQuery bundles (jQuery and jQuery UI) User Interface JavaScript GUI Lib: jQuery bundles (jQuery and jQuery UI) plugin.	1.2.1	5 yr 3 mo ago
<input type="checkbox"/>	Docker Commons api-plugin docker Library plugins (for use by other plugins) Provides the common shared functionality for various Docker-related plugins.	1.17	11 mo ago
<input type="checkbox"/>	Maven Integration Build Tools This plug-in provides, for better and for worse, a deep integration of Jenkins and Maven: Automatic triggers between projects depending on SNAPSHOTS, automated configuration of various Jenkins publishers (JUnit, ...).	3.11	12 days ago
<input type="checkbox"/>	Docker Pipeline Deployment DevOps docker pipeline	1.26	3 mo 20 days ago

At the bottom, there are buttons for 'Install without restart', 'Download now and install after restart', and 'Check now'. A note indicates 'Update information obtained: 21 hr ago'.

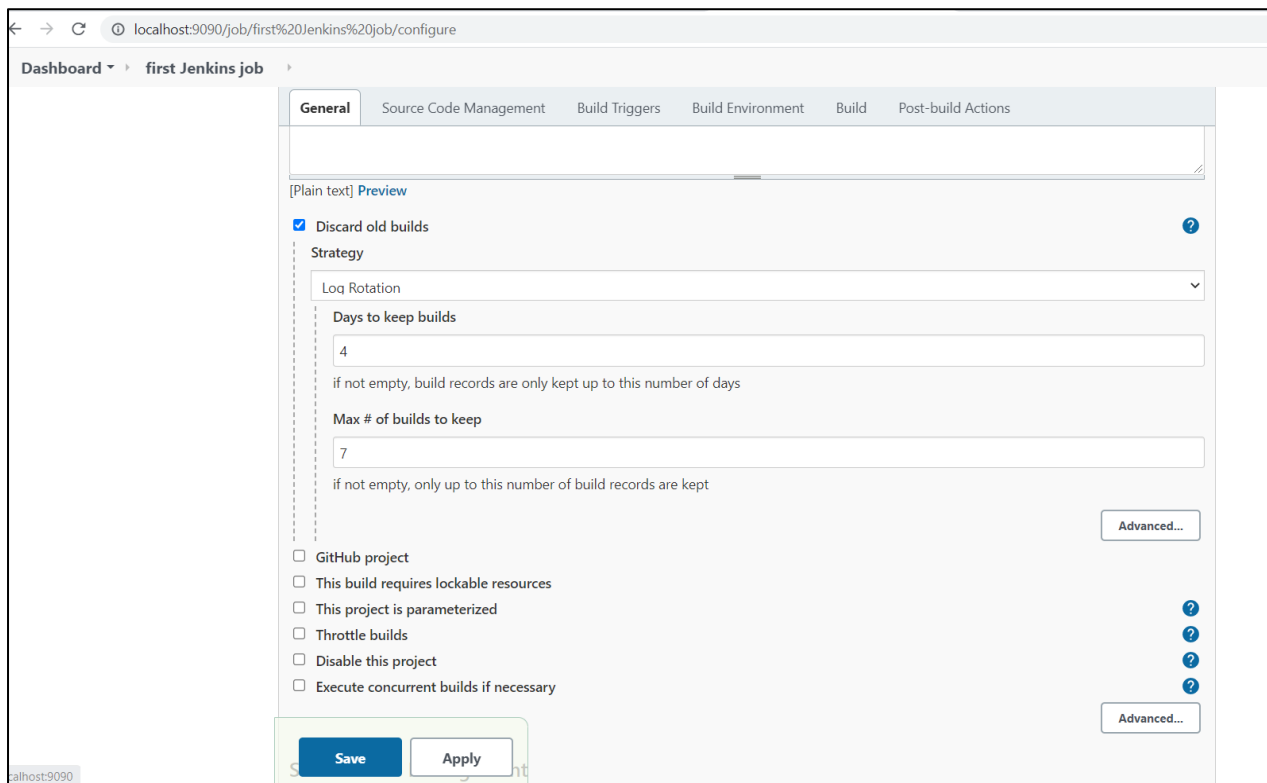
6. Now navigate back to Jenkins Dashboard and you need to click on 'create a job'.



- Now provide the Jenkins job name under 'item name' option and select 'Pipeline' as project type. Once done click on 'OK' button.

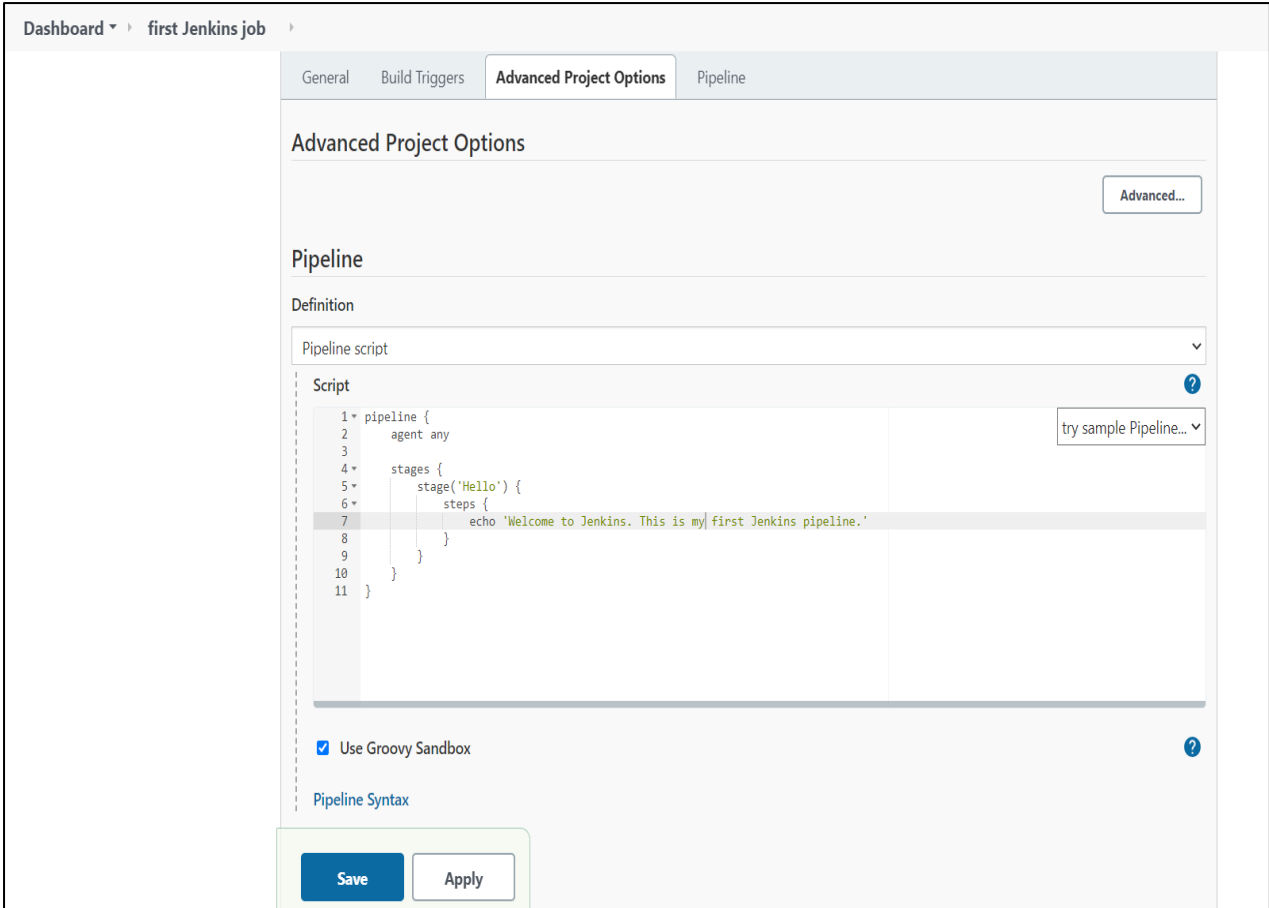


- Under 'General' tab select 'Discard old build' option and enter the values as mentioned in the below screenshot.

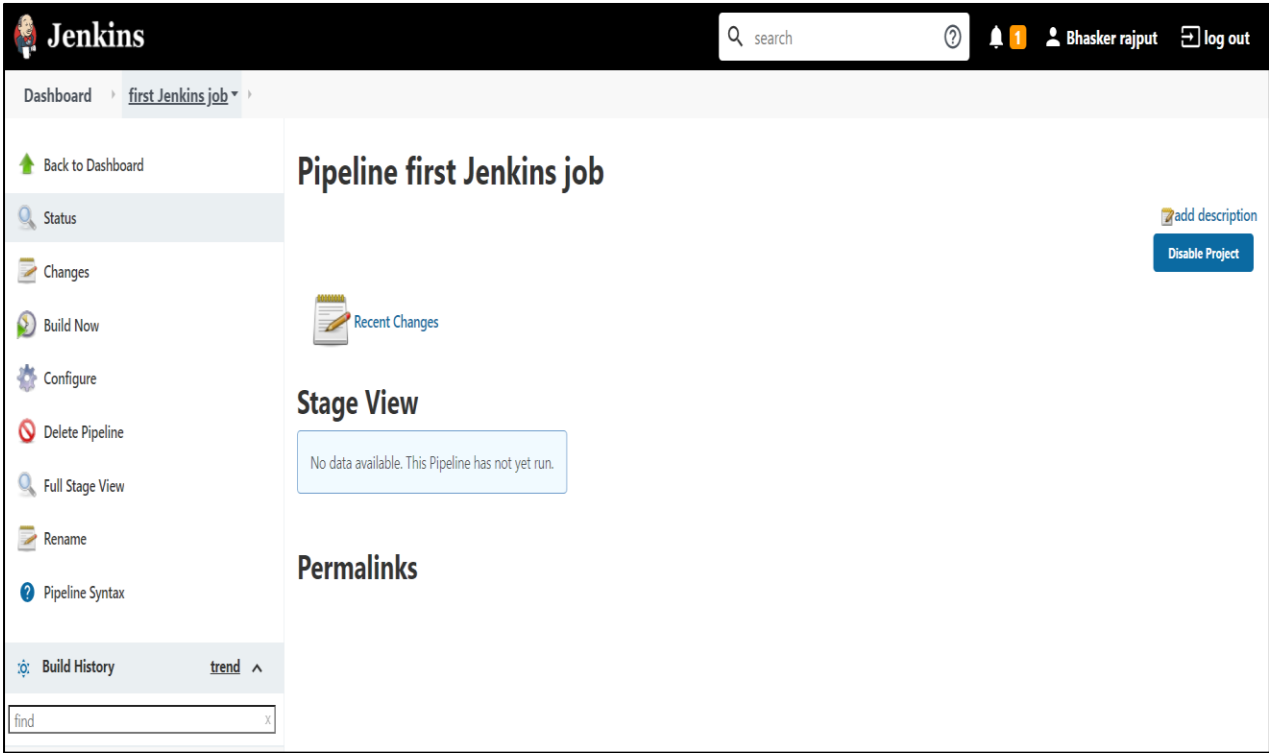


9. Now navigate to 'Advance Project Options' and under 'Pipeline' section write the below mentioned pipeline script. Now click on 'Appy' followed by 'OK' button.

```
pipeline {  
  agent any  
  
  stages {  
    stage('Hello') {  
      steps {  
        echo 'Welcome to Jenkins. This is my first Jenkins pipeline.'  
      }  
    }  
  }  
}
```



10. Now from the left side menu click on ‘Build Now’ to build the Jenkins pipeline.



11. After few seconds, your pipeline builds successfully as mentioned in the below screenshot.

The screenshot shows the Jenkins web interface for a job named 'first Jenkins job'. The left sidebar contains navigation links: 'Back to Dashboard', 'Status', 'Changes', 'Build Now' (highlighted), 'Configure', 'Delete Pipeline', 'Full Stage View', 'Rename', and 'Pipeline Syntax'. Below these is the 'Build History' section with a search bar and a table showing build #1 on Jun 14, 2021 at 9:58 PM. The main content area is titled 'Pipeline first Jenkins job' and includes a 'Recent Changes' section. The 'Stage View' section displays 'Average stage times: 169ms' and 'Average full run time: ~1s'. A 'Hello' stage is shown with a duration of 169ms. The 'Permalinks' section is also visible.

12. Now click on 'Hello' pipeline stage under 'stage view' and further click on logs to validate the pipeline message.

The screenshot shows the 'Stage Logs (Hello)' page in Jenkins. The top section displays the message 'Print Message -- Welcome to Jenkins. This is my first Jenkins pipeline. (self time 16ms)' and the text 'Welcome to Jenkins. This is my first Jenkins pipeline.' Below this is a sidebar with navigation links: 'Status', 'Changes', 'Build Now', 'Configure', 'Delete Pipeline', 'Full Stage View', 'Rename', and 'Pipeline Syntax'. The main content area is titled 'Stage View' and displays 'Average stage times: 169ms' and 'Average full run time: ~1s'. A 'Hello' stage is shown with a duration of 169ms. The 'Permalinks' section is also visible.