

Assignment2_1-----

JENKINS

Installing Blue Ocean

Blue Ocean is a new User Interface (UI) and User Experience (UX) for **Jenkins**, designed to make **Jenkins** UI more efficient by reducing clutter and increasing the clarity.

Following are the steps to install Blue ocean:

1. Go to Manage Jenkins → Manage Plug-ins.
2. Select the "Available" tab and add "Blue Ocean" in the filter box to search for the plugin.
3. Select the Blue Ocean (BlueOcean Aggregator) plug-in. Install it and restart Jenkins.
4. Choose Blue Ocean option from the left menu to use Blue Ocean UI.

Integrating GitHub Repository and Jenkins

If you have some code base in a gitHub repository and you want to use Jenkins for it's continuous integration, you can integrate that repository with Jenkins and henceforth, any changes in the repository will trigger Jenkins build.

Following are the steps:

A) Building a new job for a private GitHub Repository

1. Log in to Jenkins and create a new freestyle project.
2. Under the Source Code Management section, select Git.
3. Enter the private repository's URL in the Repository URL field.
4. Since the repository is private, you need to add credentials for Jenkins.
5. Click on Add button, next to the Credentials field and choose Jenkins as the Credential provider in the drop down menu.
6. Enter your GitHub user-name and password. After adding your credentials choose the newly added credentials in the dropdown menu that appears next to Credentials label.

B) Configuring the GitSCM Poll Build Trigger

1. Under the Build Triggers Section, select "GitHub hook trigger for GITScm polling" option.
2. Complete other build options as per the requirement.
3. Now, you need to set up your GitHub repository, so that it makes requests to Jenkins web-hook and the polling logic can be completed.
4. Go to the settings of your GitHub repository.
5. Choose "Integration and Services" option.
6. Click on Add Service and select Jenkins (GitHub plug-in) from the drop down menu.
7. Now, you will be asked to enter "Jenkins Hook URL". This is the public URL of Jenkins server which you are running.
8. To get the public URL, install ngrok and run the command `./ngrok http 8080`, this will provide a public ip address. Copy paste it into the Jenkins Hook URL text box.
9. Activate the service by ticking the Active check-box and click on Add Service button.

Post Build Actions - Extended Email Notification

After each execution of the build, if you want to receive the notifications by e-mail, follow the following steps-

A) Configuring E-Mail

1. Go to Manage Jenkins → Configure Systems and scroll down to the Extended E-mail Notification section.
2. Add the SMTP server details of the email which you want to use to send e-mails.
3. Click on Advanced button.
4. Select Use SMTP Authentication and enter account user-name and password.
5. Select Use SSL and enter the SMTP port number.

B) Adding post build action

1. Go to Configuration page of project and scroll down to Post-build Actions.
 2. Click on Add post-build action and choose Email Notification from the dropdown menu.
 3. Enter the e-mail id's of the recipients in Recipients field.
 4. Check that "Send e-mail for every unstable build" is ticked.
 5. Apply and Save the changes.
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