Assignment 2.1 - Jenkins

Steps to Install Blue Ocean

* Go to manage jenkins, the button is present to the left on jenkins dashboard.
* Then click on manage plugins.
* Click on the available tab and search for blue ocean.
* Select the Blue Ocean plugin. Click on install without restart. It will install this plugin and it is enough as it installs all the required plugins.
* After restarting the Blue ocean will activate and a button will appear on the left of jenkins dashboard.
* Blue Ocean UI will start if u click that button.

Building a private GitHub Repository In jenkins

* Click on new item on the left of jenkins dashboard
* Create a free style project.
* While configuring the project,under Source Code Management,select GIT.
* Paste the url of repository in repository url and in the credentials, click on add button and select jenkins.
* Under username and password, fill your github credentials.
* Select this credentials option in the drop down menu of credentials.
* Now the private repository gets added to the project and can be used.

Configuring build triggers

* Go to Configuration page of project.
* Under Build Triggers choose GitHub hook trigger for GITScm polling and save configuration.
* Adding Jenkins service to GitHub
* Now we need to set up our GitHub repo to make a request to Jenkins webhook so that the polling logic can be applied.
* Go to GitHub repo and navigate to Settings.
* Choose Integrations & services from the submenu.
* Click on Add service and choose Jenkins (GitHub plugin) from dropdown menu.
* Add http://<public-ip or URL>/github-webhook under Jenkins hook url.
* Make sure the service is active by selective the Active checkbox and click on Add Service button.
* Now GitHub should make a request to the Jenkins webhook and cause a build (if required) to occur.

Post Build Actions - Extended Email Notification

Steps to setup Extended Email Notifications as a post build action have been documented below. Extended Email Notifications allow us to send customized email notifications after the build process.

Configuring Email

* We need to first add the details of the SMTP server and the mail account so that Jenkins can send the mail.
* Go to Manage Jenkins > Configure Systems and scroll down to the Extended E-mail Notification section.
* Add the SMTP server details e.g. smtp.gmail.com for a Gmail account.
* Click on the Advanced button to configure the mail account that will be used to send the mails.
* Select Use SMTP Authentication if required e.g. Gmail uses a password for authentication and so this must be selected.
* Enter the account username under User Name and password under Password.
* Select Use SSL and specify the SMTP port (465 in most cases).
* Select Allow sending to unregistered users if mail should be sent to non-Jenkins users.
* With this the basic email configuration is complete.
* One can use the other options to customize the mail sent. For e.g. we can specify the list of default recipients and default content.
* Jenkins injects certain variables like $PROJECT\_NAME, $BUILD\_NUMBER and $BUILD\_STATUS which can be used in the content to get dynamic values.

Adding the post build action

* Go to Configuration page of project and scroll down to Post-build Actions.
* Click on Add post-build action and choose Editable Email Notification from dropdown menu.
* Jenkins once again provides the default settings through variables e.g. $DEFAULT\_RECIPIENTS, $DEFAULT\_SUBJECT and $DEFAULT\_CONTENT.
* The options can be used for project based customization of the email notification.