Assignment 2.1

JENKINS

Jenkins, an open source automation server written in java is a software that allows continuous integration. Continuous Integration is a development practice that requires developers to integrate code at regular intervals.

Installing BlueOcean:

- Log into Jenkins and click on Manage Jenkins from the left menu.
- Then Click on manage Plug-ins on the left.
- Click the Available tab and select the Blue Ocean (Blue Ocean Aggregator) Plugin and then install it. All the dependencies will be installed along with it
- Then an "open blue ocean" option will be available on the left, click on that to use BlueOcean UI.

Building a Private GitHub Repository using Jenkins:

- Create a private repository on GitHub.
- Log-in to Jenkins and start a new freestyle project.
- Go to Source Management Section and select Git.
- Paste the URL of the created private repository in the URL section.
- Now as the repository is private we must give Jenkins permission to access the repository. Click on the add button near credentials option.
- Provide the username and password of your GitHub account and select it through credentials dropdown menu.
- Configure other build options as per requirement and apply and build the project.

Using GIT SCM Polling:

Git SCM polling creates a link between Jenkins and GitHub and Jenkins builds the project whenever a new commit is made to repository.

- Go to the configure option of the project for which you need to implement Git SCM polling.
- Select GitHub hook trigger for Git SCM polling under build triggers section.

- Configure other build options appropriately and apply and save.
- Now install ngrok and run "./ngrok http 8080".It will give you a public ip address.
- Go to the settings of the repository on GitHub for which you are using scm polling and then to Integration and services.
- Select add service and then search for Jenkins (GitHub plugin).
- Under Jenkins url section paste "public ip given by ngrok/github-webhook".
- Select Active and click on Add service.

Post Build Step:

- Click on Manage Jenkins on the left and then configuration systems and then scroll down to email-notifications section.
- Add the smtp server details and then configure the mail account that will be used to send the email.
- Select use SMTP authentication if required and enter account username and password.
- Select use SSL and specify the SMTP port.
- Now, go to the Configuration page of project and scroll down to post build options.
- Select E-mail notifications in drop down menu and enter the email-id of recipients.
- Apply and save changes.