Phase 5

Total classes : 10

Day 7 : 13 Feb 2024

DevOps : Developer and Operation

Git, Maven, Testing 🡪 Selenium, TestNG and jUnit, CI and CD tool Docker, Kubernetes etc.

CI and CD : Continues Integration and Continues Deployment or Delivery

Build the project : Maven

Compile the program, run the program, creating jar or war, testing and deploy

Dev1 (Login Page) push

Build the project

push Git Hub CI and CD tool -🡪 pass it

Dev2 (Application Page) (Remote Repository)

push (shared repository)

Dev3 (Feedback Page)

Manager need pull (pull and build in manager machine).

Continues Integration : means combine more than one developer code and then build the projects.

CI and CD : this tool connect with Remote repository (shared or common repository) ie Git Hub or GibLab etc. whenever any developer push the code in shared repository CI and CD tool pull the code and build the project and it successes pass this code to another team or server machine or testing server.

If anything go wrong that tool send the notification to respective developer

CI and Cd tools

GitLab : it is a type of remote repository as well as CD and CD tool.

Jenkin

CI and CD tool build the project which pull from remote repository which contains more than one developer merged code.

This tool automatically to this task.

Jenkin : it is a type CI and CD open source tool created using Java technology. Jenkin GUI based tool. Jenkin provide lot of plugin which we can download base upon our requirements.

Local machine we need to use <http://localhost:8080> by default Jenkin port number

In EC2 instance <http://IpAddress:8080>

We can run Jenkin using

war file

.exe

Using Docker

Download the jenkins.war file

This war file you need to copy and paste inside tomcat directory

C:\Program Files\apache-tomcat-9.0.71\webapps

Then open terminal inside webapp folder

java -jar jenkins.war

or

java -jar jenkins.war --httpPort=9090

after run this command check in console Jenkin fully up.

then open the browser

<http://localhost:8080>

First Job : Display simple echo message.

Second job : Run simple Java Program

Third Job : Running simple Java Program using trigger options.

In Build

Maven

Create jenkin Job to build spring maven project

In build

mvn clean

mvn compile

mvn package