==========
What is Build & Deployment
==========

1) Take source code from git repo

2) Compile & Package that code

3) Perform Code Review

4) Upload Build Artifact to Nexus

5) Create Docker Image

6) Create Container

==========
Application Environments
==========

1) DEV
2) SIT
3) UAT
4) PILOT
5) PROD

=> Build and Deployment process in all these environments is difficult and time taking process.

=> To avoid the challenges involved in Manual Build and Deployment process we are going for JENKINS.

========
Jenkins
========

=> Jenkins is used to automate build and deployment process

=> Jenkins is a CI CD software

=> CI CD means continuous integration & Continuous deployment

=> Jenkins Software developed by using Java language (To run jenkins java is mandatory).

=> Jenkins Server Runs on Port : 8080

==========
Jenkins Setup
==========

1) Create Ubuntu VM in AWS Cloud

2) Connect to Ubuntu VM using MobaXterm

$ curl -fsSL https://pkg.jenkins.io/debian/jenkins.io-2023.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null

$ echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
https://pkg.jenkins.io/debian binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null

$ sudo apt-get update

$ sudo apt-get install fontconfig openjdk-11-jre

$ sudo apt-get install jenkins

$ sudo apt-get update

$ sudo apt-get install jenkins

Note: Enable 8080 port number in security group

=> Access Jenkins Server using below URL

URL : http://public-ip:8080/

==========
==========