# Jenkins -

Jenkins : http://localhost:8090/

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### Jenkins -

* Jenkins is continuous integeration tool used to build(compile,test) code and deploy to production
* Jenkins provided hundreds of plugins to support building, deploying and automating any project.
* It is a server-based system that runs in servlet containers such as apache tomcat.It supports version control tools like svn,git etc
* we can create jenkin project by selecting type as freestyle project

### Pipeline-

* pipeline is workflow with the group of events or jobs that are chained and integrated with each other in sequence.
* pipeline is process of continuous delivery automation using Jenkins job(items)
* each job contains some processing inlet and outlets

**build - Deploy -Test -Release**

Continuous delivery pipeline

A screenshot of a computer

Description automatically generated

### Types of pipeline-

*Build plugin pipeline* : If your application have less job to execute (development -> UAT -> production)

*Declarative pipeline* : If your application have multiple jobs like development, code review ,UAT(unit test, coverage test, Load test, Integeration Test

*Scripted Pipeline* : Packaging test), Build etc....Then Declarative and Scripted

### Batch commands for build Steps :

I am using this as mvn is not recognized by my system

|  |
| --- |
| set MAVEN\_HOME=C:\ProgramFiles\Apache\apache-maven-3.8.8  set PATH=%MAVEN\_HOME%\bin;%PATH%  mvn install -Djavax.net.ssl.trustStore="%JAVA\_HOME%\lib\security\cacerts" -Djavax.net.ssl.trustStorePassword=changeit |

### JenkinsFile –

jenkinsfile consists of steps to be followed like build maven project, build docker image and push docker image.

we can add jenkinsfile in 2 ways-

-> manually in pipeline project

-> can import jenkinsfile from particular git project

**Sample -**

|  |
| --- |
| pipeline {  agent any  tools {  maven 'apache-maven-3.8.8'  }  stages {  stage('Build Maven') {  steps {  checkout([$class: 'GitSCM', branches: [[name: '\*/main']], userRemoteConfigs: [[url: 'https://github.com/Lavanya-Dirisala/spring-jenkins']]])  bat 'mvn clean install'  }  }  stage('Build Docker Image') {  steps {  script {  bat 'docker build -t lavanya0907/jenkins-practice .'  }  }  }  stage('Push Docker Image to Docker Hub') {  steps {  script {  bat 'docker login -u lavanya0907 -p seneca123$'  bat 'docker push lavanya0907/jenkins-practice'  }  }  }  }  } |



Git - https://github.com/Lavanya-Dirisala/spring-jenkins