Jenkins Pipeline

This document explains how to create a Jenkins Pipeline from start to end using Jenkins and GitHub.

REQUIREMENTS:-

1. Install Jenkins
2. Install tomcat
3. Install java
4. Install git
5. With in manage Jenkins -> plugins->available plugins add deploy and maven plugins
6. With in manage Jenkins->tools give paths of git, jdk, maven, etc

Maven Web Application Pipeline

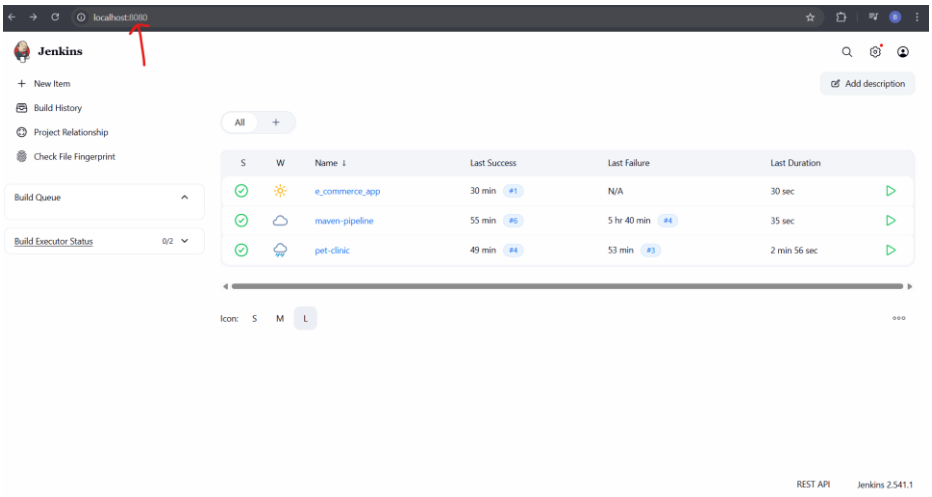
A Maven Web Application is a Java-based web application that is built and managed using Apache Maven.

What is Apache Maven?

Apache Maven is a build automation and project management tool used mainly for Java projects. It uses a file called pom.xml (Project Object Model) to manage:

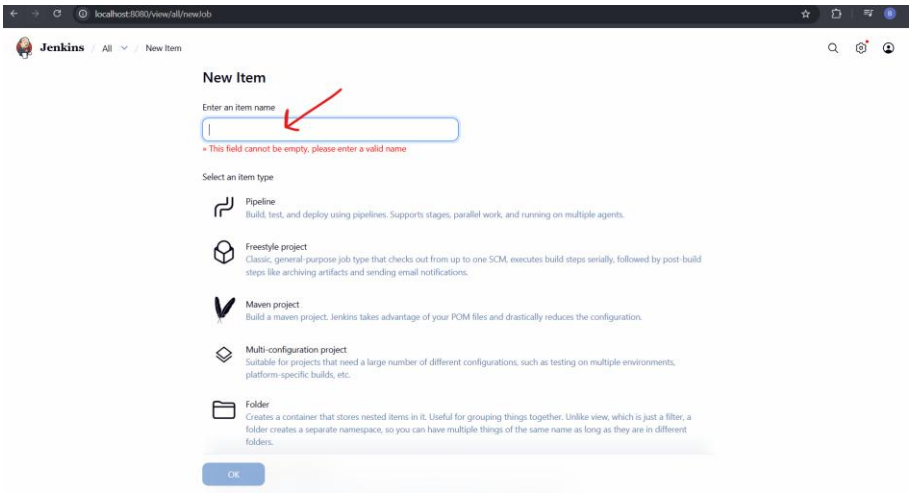
- Project dependencies
- Build lifecycle
- Plugins
- Project configuration

Step 1 : Go to Jenkins using port number



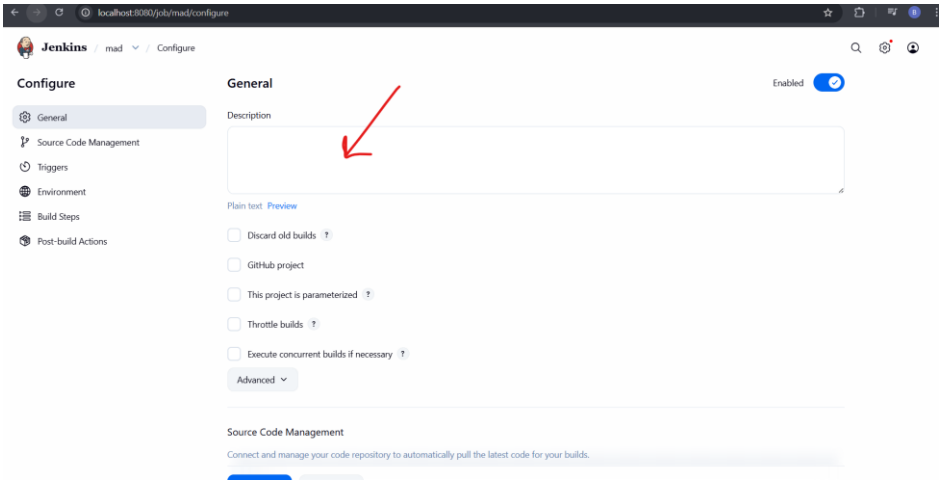
This is home page of Jenkins.

Step 2: click on “new item” to create new pipeline



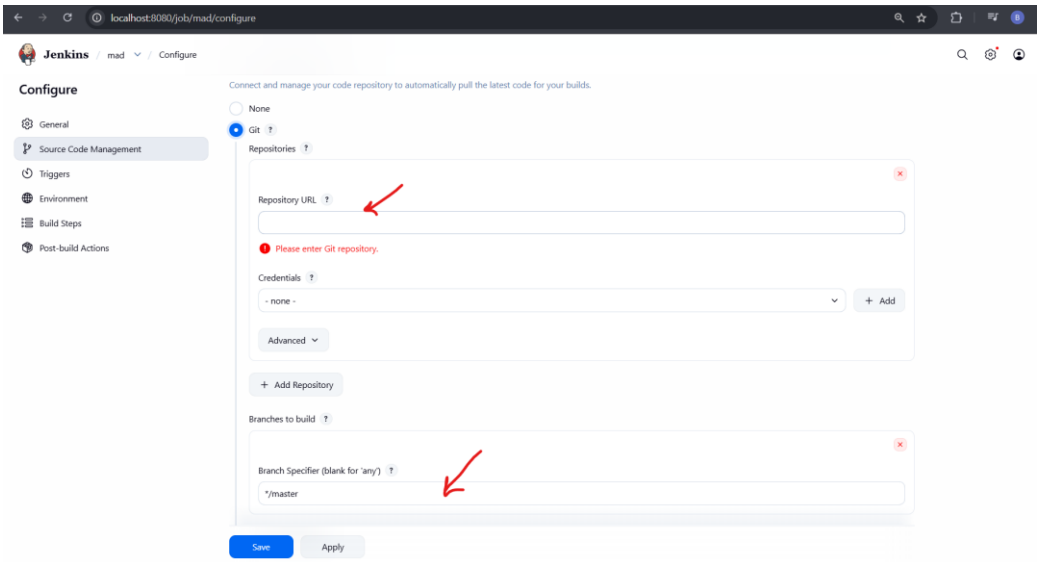
Here you have to give name to pipeline and select item type as “Freestyle Project” then click on “ok”

Step 3: Give general description for pipeline



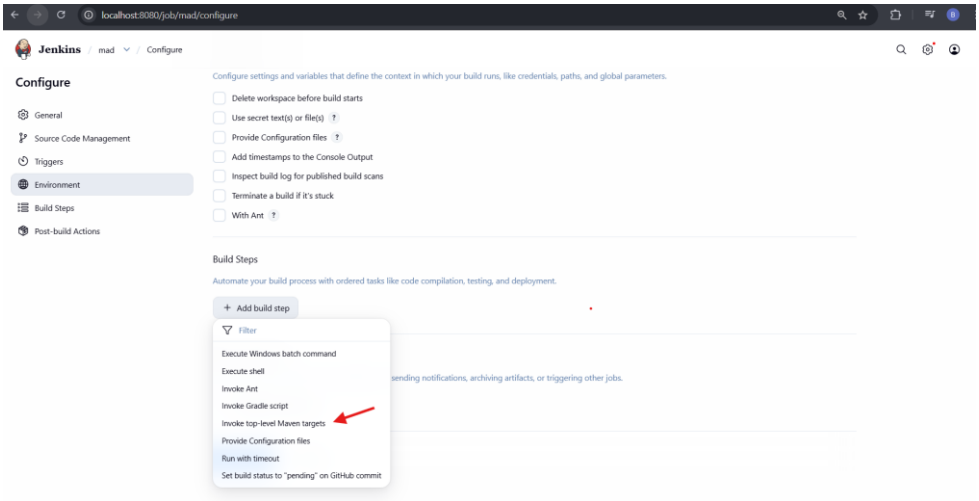
Here you have give general description of pipeline

Step 4: Add project GitHub link



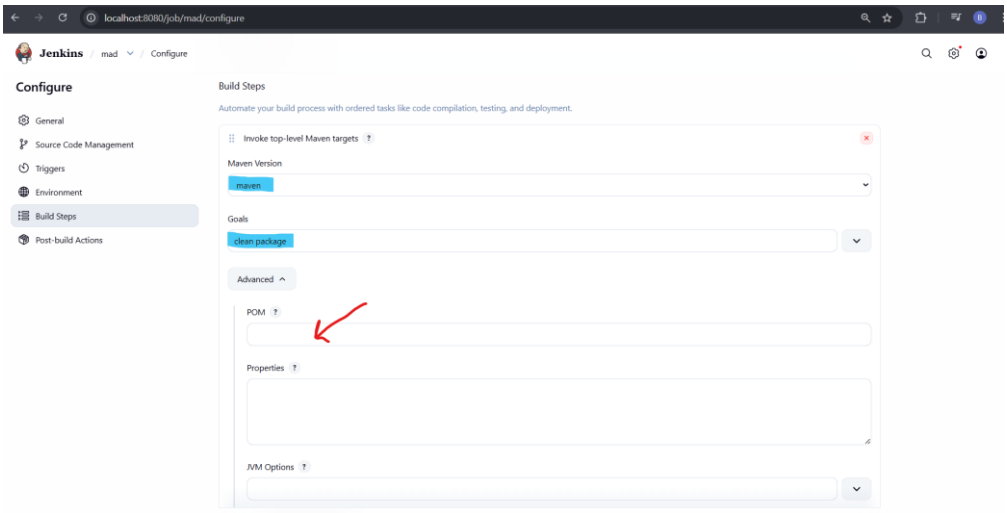
Add project GitHub repository link and also check for branch

Step 5: Build step



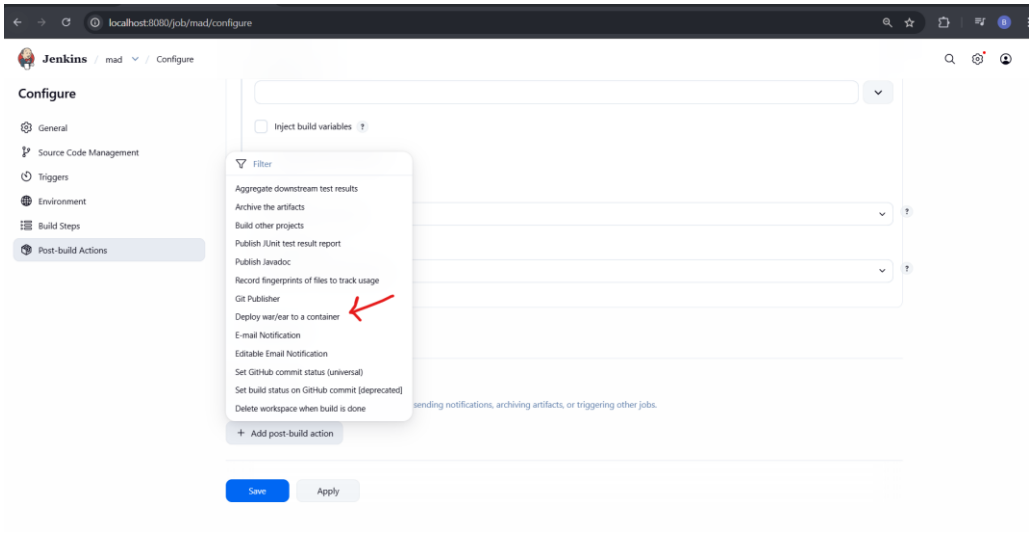
Here choose built step as “Invoke top- level Maven targets”

Step 7: Configure build step



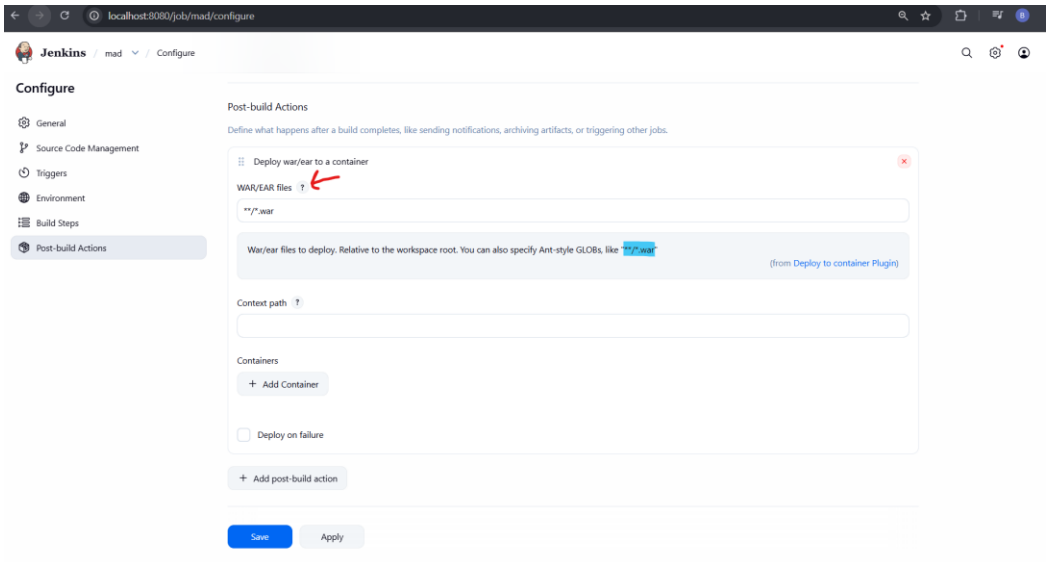
Declare Maven version as "**maven**" and Goals as "**clean package**", and if **POM.xml**(Project Object Model) file is not in same branch of GitHub then In Advanced section of Build Step add POM.xml file path

Step 8: Post Build Action



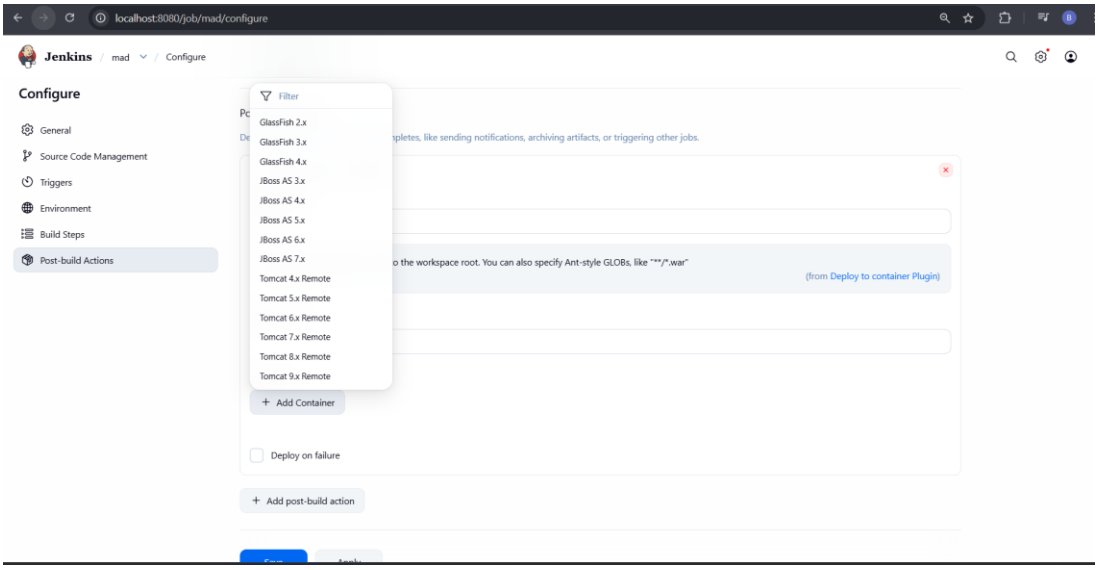
In Post Build Action, add post-build action as "**Deploy war/ear to a container**"

Step 9: Add war/ ear files



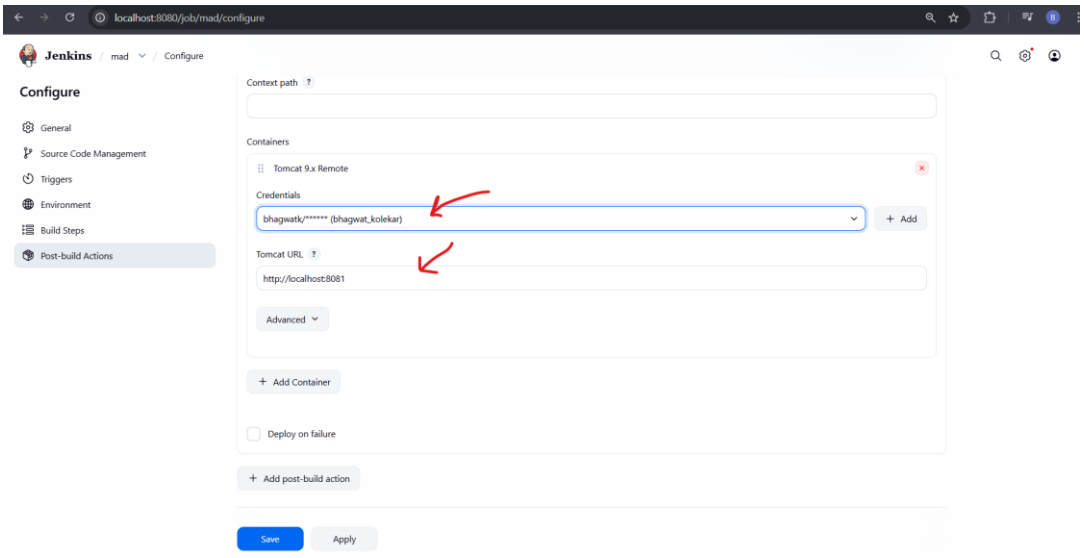
Click on "**?**" to het war/ ear files, copy text in highlighted blue i.e **(**/*.war)** and paste it in war/ear files section

Step 10: Add Containers



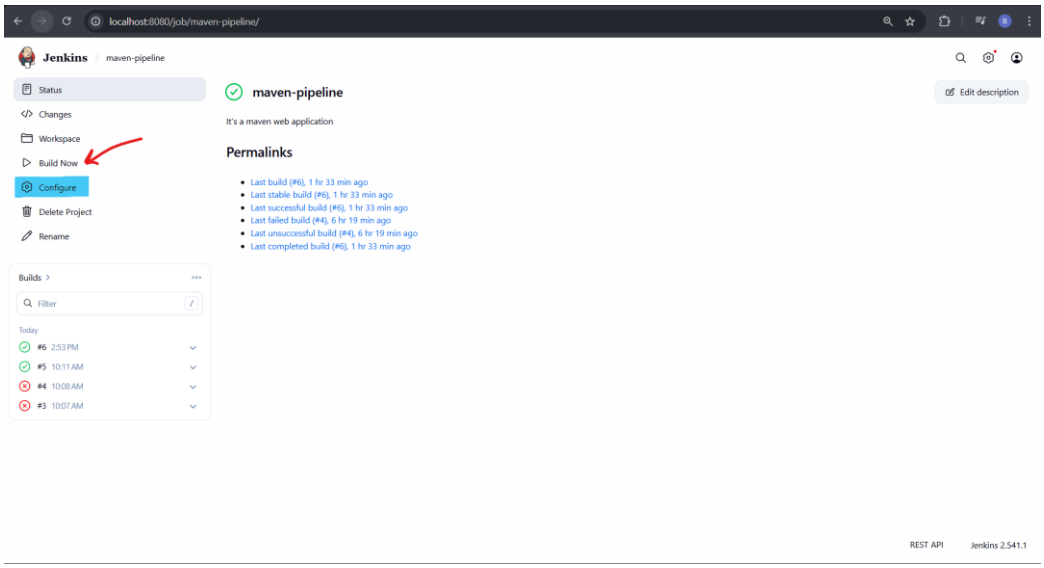
Add Container as Tomcat version which you have downloaded.

Step 11: Add Tomcat Credentials



Here I have chosen Tomcat 9 and Given Tomcat account credentials also add Tomcat URL

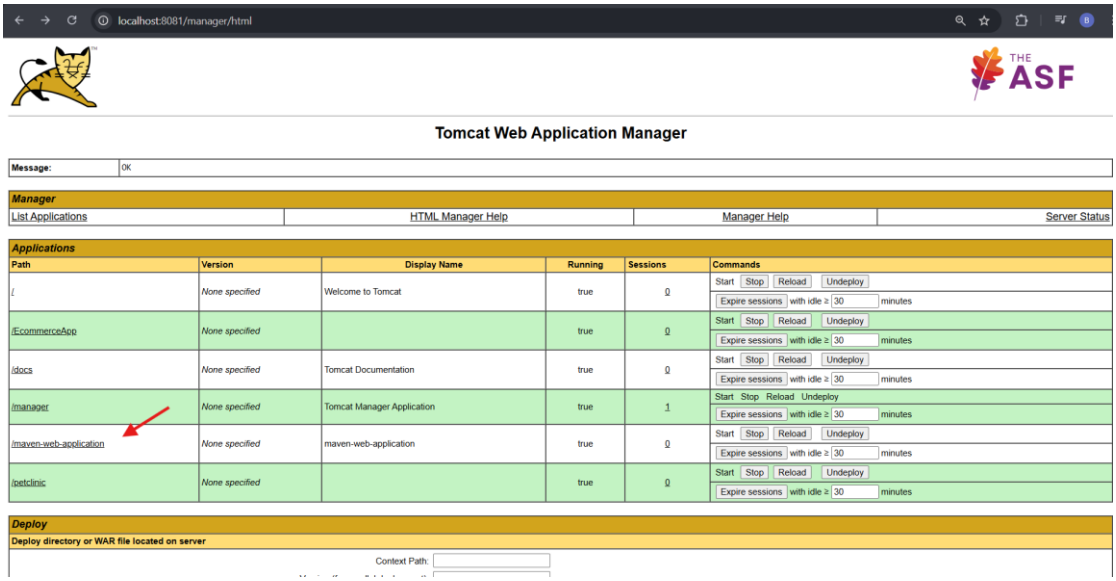
Step 12: Configure and Build



First go to **Configure** and check all configurations then click on "**Build Now**"

If Console output is "**Success**" go to next step otherwise resolve errors.

Step 13: Go to Tomcat Web Application Manager using port number



This is the Home Page of Tomcat Web Application Manager, Under Applications Check for **"App name"** then click on it

Step 14: Output