**Maven Deployment & Error Resolution**

**Date:** 28-03-2025  
**Author:** Suneetha.V

**1. Introduction**

This document provides a step-by-step guide to deploying a Java-based web application, resolving common errors, and ensuring a smooth deployment process.

**2. Prerequisites**

Before starting, ensure the following:

* Java 11 (Amazon Corretto) is installed
* Maven is installed
* Apache Tomcat or another application server is set up
* The WAR file is successfully built

To check Java and Maven versions:

java -version

mvn -version

**3. Common Errors & Resolutions**

**Error 1: "Source option 5 is no longer supported"**

**Cause:** Maven compiler is using an outdated Java version.

**Solution:** Modify pom.xml and set the Java version:

<properties>

<maven.compiler.source>11</maven.compiler.source>

<maven.compiler.target>11</maven.compiler.target>

</properties>

Then, rebuild the project:

mvn clean install

Once the build is successful and the WAR file is generated, proceed with deployment.

**Apache Tomcat Deployment Guide**

**1. Introduction**

Apache Tomcat is an open-source implementation of Java Servlet, JavaServer Pages, and Java Expression Language technologies. It is widely used to deploy Java web applications.

**2. Prerequisites**

Ensure the following are installed and configured:

* Java Development Kit (JDK) 11 or higher
* Apache Tomcat installed and running
* A compiled Java web application packaged as a .war file
* SSH access to the Linux server (EC2 Instance if using AWS)

**3. Installing Apache Tomcat**

**Step 1: Update Your System**

sudo yum update -y

**Step 2: Install Java**

sudo yum install java-11-amazon-corretto -y

Verify Java installation:

java -version

**Step 3: Download and Install Tomcat**

Navigate to the directory where you want to install Tomcat:

cd /opt/tomcat

Download the latest Tomcat version:

wget <https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.80/bin/apache-tomcat-9.0.80.tar.gz>

Extract the downloaded file:

sudo tar -xvzf apache-tomcat-9.0.80.tar.gz

**4. Deploying a Web Application**

**Step 1: Copy the WAR File**

Move your compiled .war file to Tomcat’s webapps directory:

sudo mv myweb-8.2.0.war /opt/tomcat/webapps/

**Step 2: Set Permissions**

sudo chown -R $USER:$USER /opt/tomcat

sudo chmod +x /opt/tomcat/bin/\*.sh

**Step 3: Start Tomcat**

Navigate to the Tomcat bin folder and start the server:

cd /opt/tomcat/bin

./startup.sh

**Step 4: Verify Tomcat is Running**

Check if Tomcat is running by accessing it in a browser:

[http://44.211.158.153:8080](http://44.211.158.153:8080/)

[http://ec2-44-211-158-153.compute-1.amazonaws.com:8080](http://ec2-44-211-158-153.compute-1.amazonaws.com:8080/)

**5. Starting & Stopping Tomcat**

To **start** Tomcat:

cd /opt/tomcat/bin

./startup.sh

To **stop** Tomcat:

cd /opt/tomcat/bin

./shutdown.sh