Pre-Conditions for External Deployment

# Java Installation

1. In a web browser, enter the following URL: <https://java.com/en/download/>
2. Click x64 installer.
3. Open download file.
   1. Click next.
   2. Click next.
   3. Click close.
4. Navigate to system environment variables.
   1. Click Environment Variables
   2. Under System Variables
      1. Select path.
      2. Click Edit
      3. Click New.
      4. Enter location of bin folder of installed Java
      5. Click ok.
   3. Under System Variables
      1. Click new.
      2. Assign variable name to JAVA\_HOME
      3. Assign variable value to Path of installed Java.
      4. Click Ok.

Install Apache Tomcat 10

1. Visit <https://tomcat.apache.org>
2. Navigate to side panel, under Downloads select most recent stable version of Tomcat 10.0.
   1. Scroll down to see the version and binary distribution types.
   2. Under Binary Distributions select method in which to install Tomcat 10.0.
      1. 32-bit/64-bit Windows Service Installer
   3. Open downloaded file
      1. Click next.
      2. Click I agree.
      3. Leave Default selection, then Next
      4. (optional)- can leave default or change port number 8080 is default.
      5. Create username and password for service access.
      6. Click Next.

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* + 1. Select path to Java or JRE.
    2. Click Next.
    3. Ensure destination folder for Tomcat is within Program Files.
    4. Click install.
    5. Click finish.

# Tomcat Configuration

1. In order to be able to deploy the .war file of the project the following needs to be done to re-configure tomcat settings.
   1. Navigate to Apache Software Foundation Folder
      1. Open folder
      2. Open Tomcat Folder
      3. Open webapps folder
      4. Open manager folder
      5. Open WEB-INF folder
      6. Open web.xml file with notepad
      7. Find <multipart-config>

Text

Description automatically generated

* + 1. Within heading will be <max-file-size> & <max-request-size>
    2. Add zero to the end of number under each category. (This will allow for projects up to 500mb in size to be deployed within Tomcat)
    3. After Changes.

Text

Description automatically generated

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* + 1. Save changes.

Generating .WAR File

Creating .WAR File via SpringBoot

open the pom.xml file -> locate the Springboot project specifications.

- declare the packaging type to war (See image below)

Text

Description automatically generated

2. need to create a dependency containing server dependency scope to ‘provided.’

Text

Description automatically generated

3. the last step within the pom.xml file is to ensure that the generated .war file is properly named to avoid request issues within tomcat. At the bottom of the pom.xml with the build section add <finalName>${project.artifactId}</finalName>

Text

Description automatically generated

4. Extending class tagged with @SpringBootApplication within Web Controller.



The ‘extend’ statement needs to be added to the class.

5. build as maven project and set goal to ‘package.’

right click project -> run-as -> maven build.

set goal to ‘package.’ -> finish

Deploying The Application

Deploying .WAR File to Tomcat 10

1. Open Apache Tomcat 10 folder found under Program Files
2. Within the Tomcat 10.0 folder, create a new folder.
   1. Folder name needs to be ‘webapps-javaee’.
3. Navigate to the successfully built .WAR file and copy it.
4. Place it under the webapps-javaee folder just created.
5. Start Apache Tomcat 10, Tomcats javaee project migration tool will automatically integrate needed dependencies for javax package project to run on Apache Tomcat 10 server.