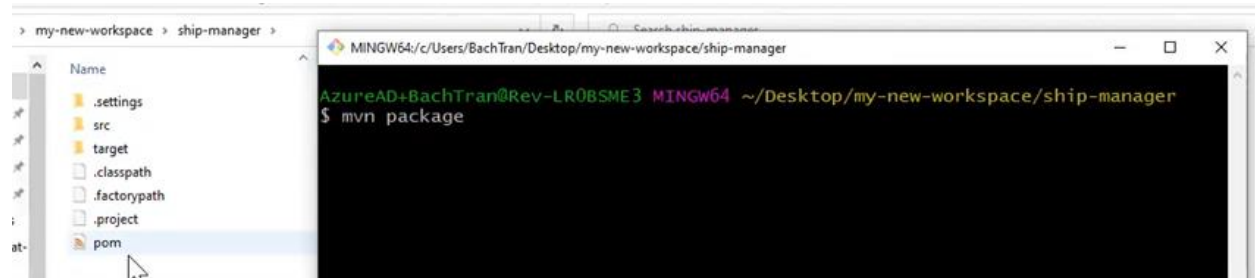# Table of Contents

Deploy war file on localhost Tomcat server

Creating war file for deployment

Use Maven to create war file

Run maven from inside project folder with web component backend
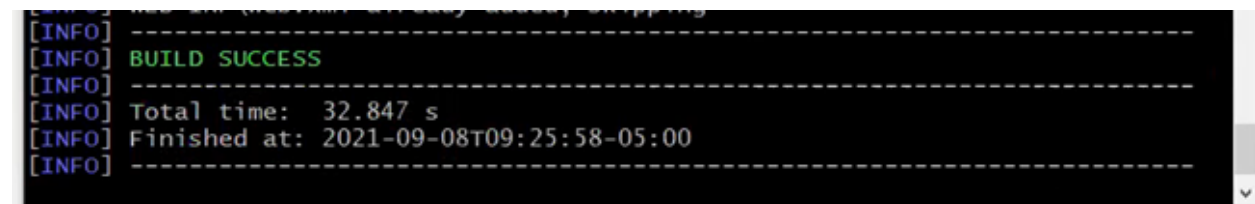
```
mvn package
```


Build Process Finishes

The build process builds the war file in the projects target directory with a name similar to:
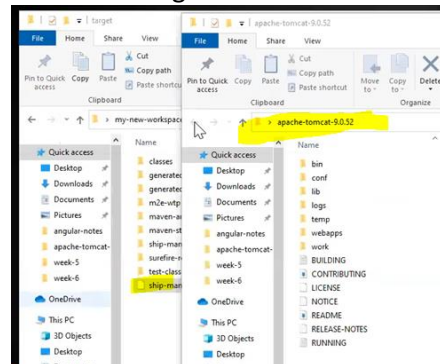project-name\target
project-name-0.0.1.SNAPSHOT.war

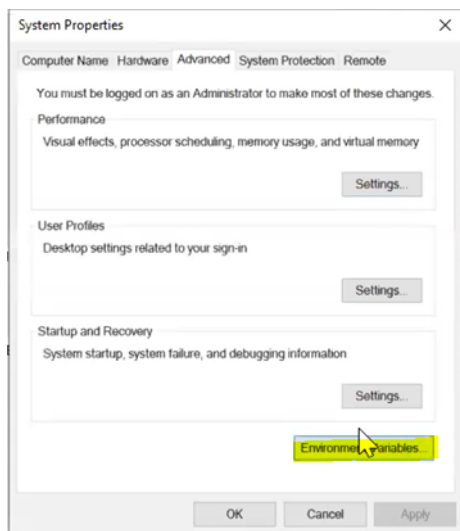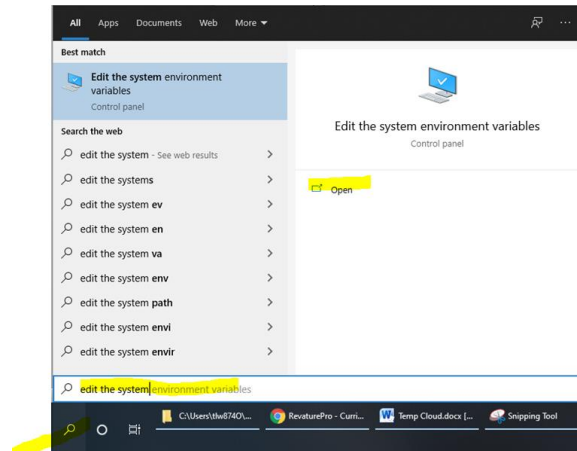## Move war file to Tomcat server

Will need to move war file
But first configure Tomcat environment variables
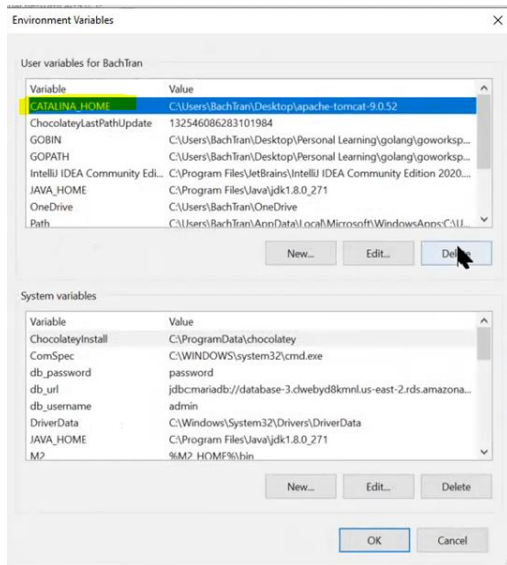
Edit system environment variables
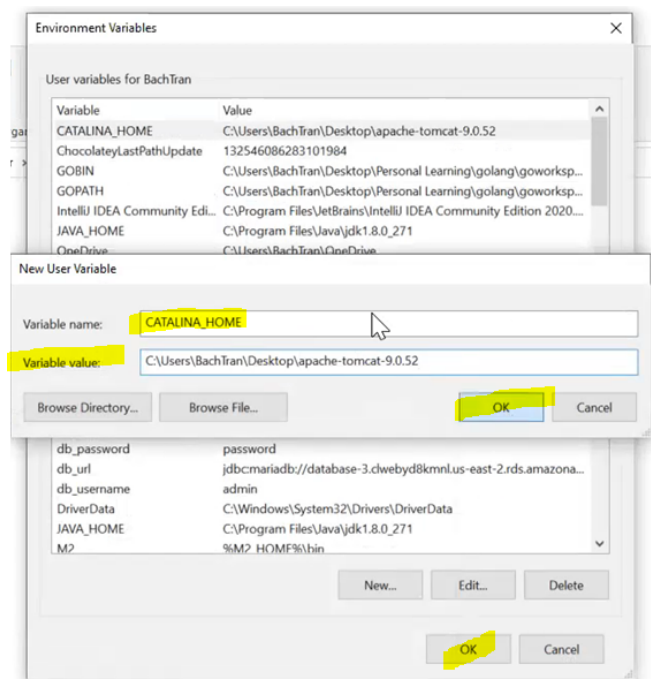
Open system environment page

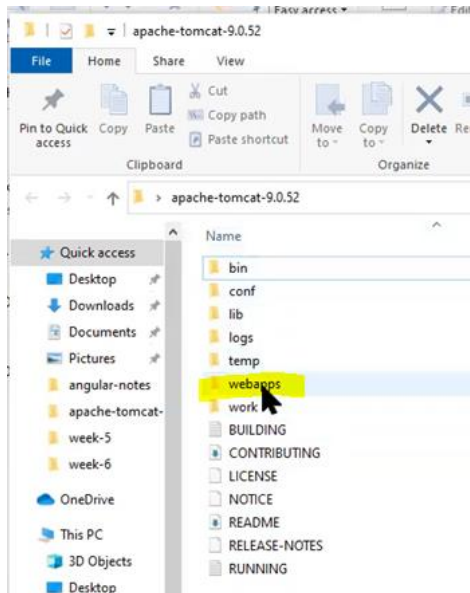### Windows search

Create system variable CATALINA_HOME

If CATALINA_HOME is not already defined, create the variable
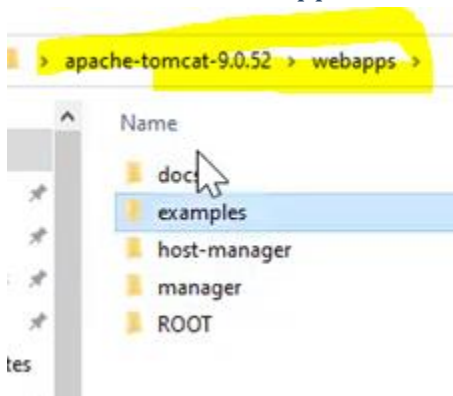

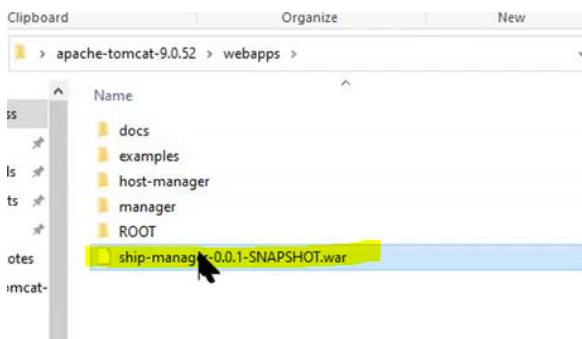The value for CATALINA_HOME is the location of the Tomcat installation directory on your machine.

Locate the Tomcat installation folder on your machine
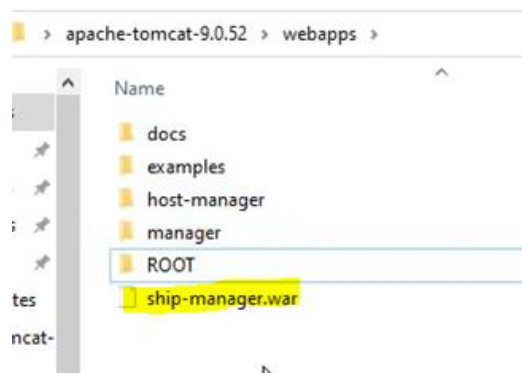
Tomcat installation directory webapps folder

Look inside the webapps folder

Copy / move your war file into webapps

project-name\target
project-name-0.0.1.SNAPSHOT.war

Rename file to something simpler
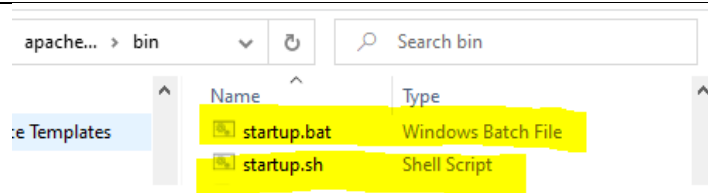
Tomcat will use the name to make a directory

Important Tomcat server files on your local computer

Examine the apache-tomcat bin folder

These two files are used to start the Tomcat server in the destination environment

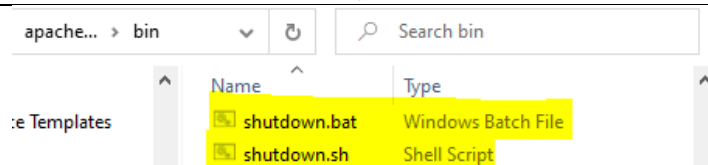| |
|---|
| startup.bat is used on Windows environment
startup.sh is used on Unix / Linux environment like AWS EC2 |

These two files are used to stop the Tomcat server in the destination environment
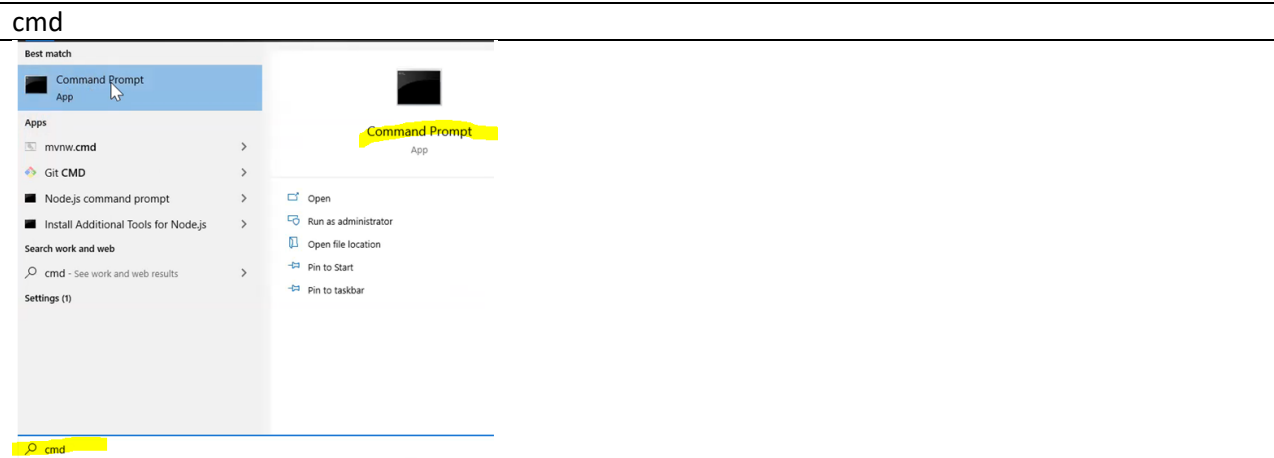
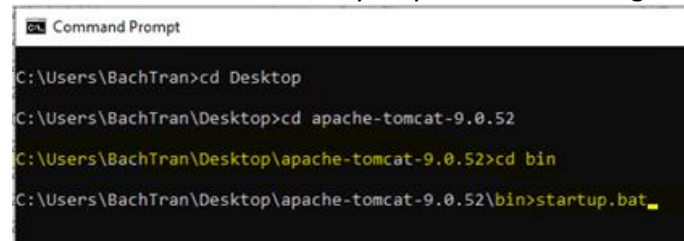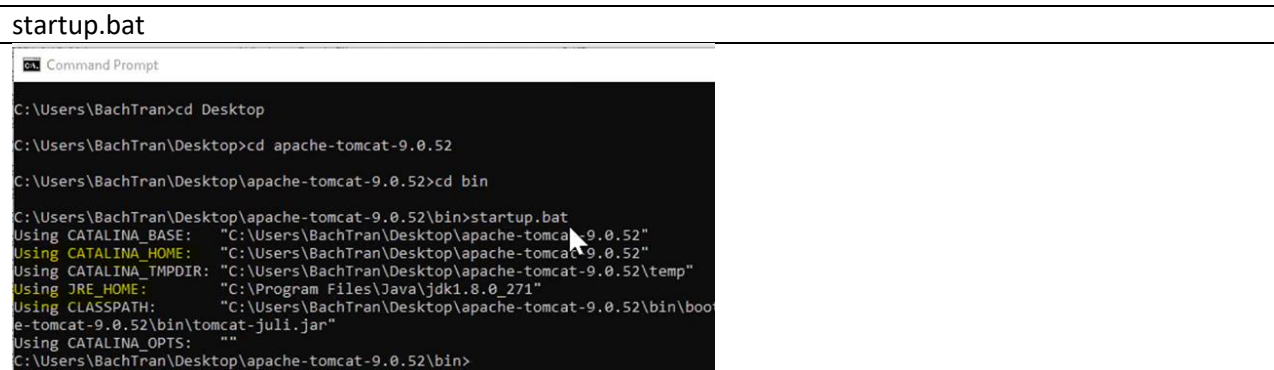| |
|---|
| shutdown.bat is used on Windows environment
shutdown.sh is used on Unix / Linux environment like AWS EC2 |

Windows search

cmd

Move to Tomcat bin directory on your machine using the cd command.
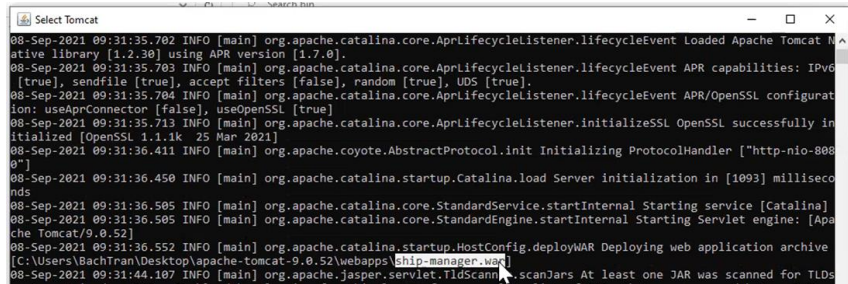
Run batch file to startup Tomcat

startup.bat

CATALINA_HOME and JRE_HOME should be defined in your system environment variables

Java window pops up with Tomcat status
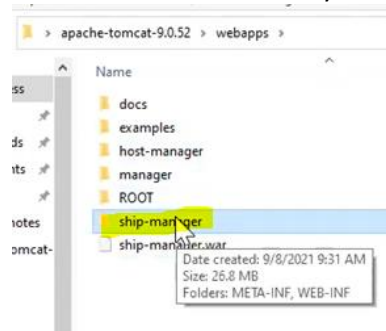
Look for your project's war file

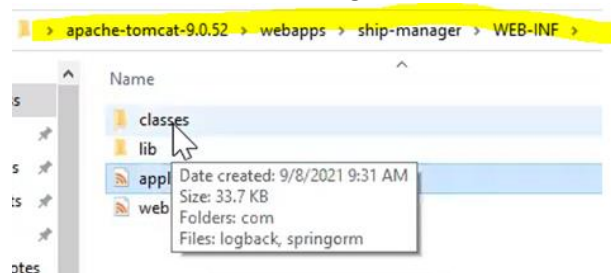Do not close the Java window as long as you want to use your program

Look inside the webapps folder

Tomcat created a directory for our war file.
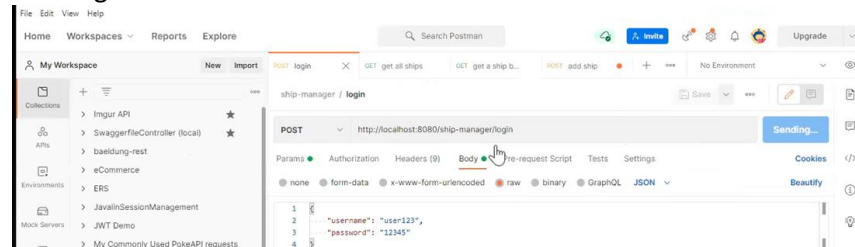

Look inside your project's folder

Tomcat created the following

Postman or your front end can be used to send in requests

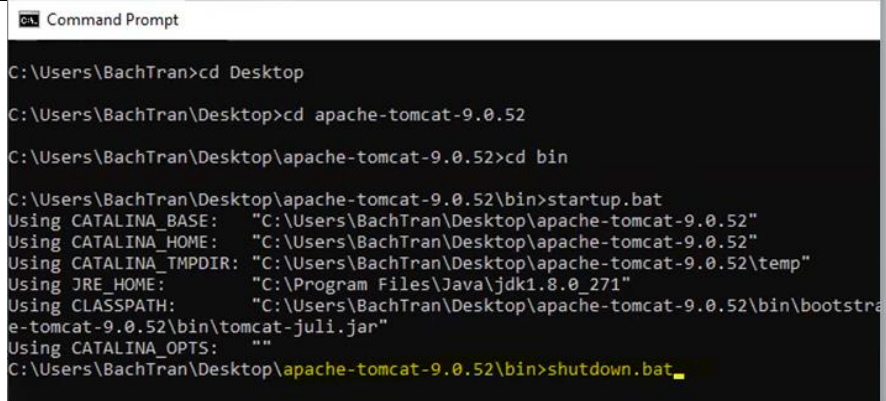If the request hangs then try shutting down the server and restarting.
You might have to control-c in the Java window.

Stopping the Tomcat server

To shut down the server, in the Windows command prompt window in the Tomcat bin directory, type in

shutdown.bat

This will close the Java popup window.

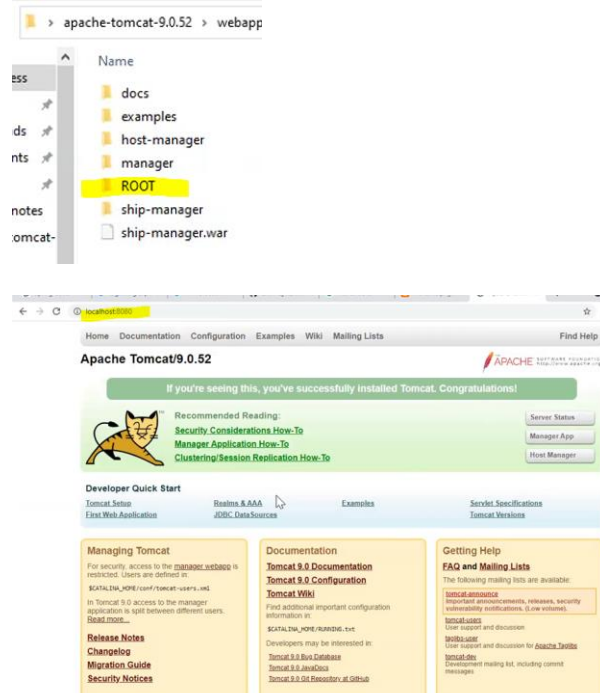# Tomcat Applications Overview

Tomcat Manager Application
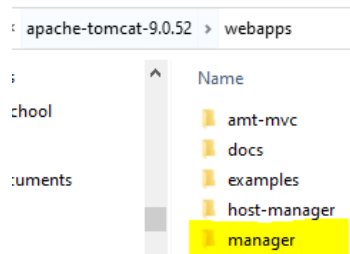
http://localhost:8080/manager
First time need to login
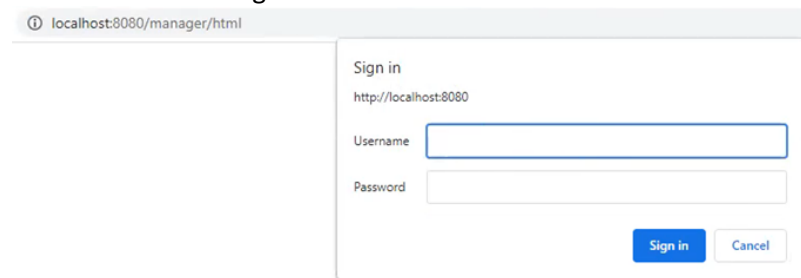
Overview of password needed follows

Tomcat Root Application

http://localhost:8080
Brings up the ROOT application

Manager application password

CATALINA_HOME user file

tomcat-users.xml

Edit tomcat-users.xml

Open tomacat-users.xml using VS Code, text pad or some other editor.

```
20              xsi:schemaLocation="http://tomcat.apache.org/xml tomcat-users.xsd"
21              version="1.0">
22  <!--
23    By default, no user is included in the "manager-gui" role required
24    to operate the "/manager/html" web application.  If you wish to use this app,
25    you must define such a user - the username and password are arbitrary.
26
27    Built-in Tomcat manager roles:
28      - manager-gui    - allows access to the HTML GUI and the status pages
29      - manager-script - allows access to the HTTP API and the status pages
```

Example of how to define a gui admin

```
<!--
  <user username="admin" password="<must-be-changed>" roles="manager-gui"/>
  <user username="robot" password="<must-be-changed>" roles="manager-script"/>
-->
```

Copy line outside of comments and enter a password.

```
42    <user username="admin" password="password12345" roles="manager-gui"/>
```

Access Tomcat Manger Application

You should now have access to the manager.
NO need to bounce the server from the command line.
http://localhost:8080/manager/html