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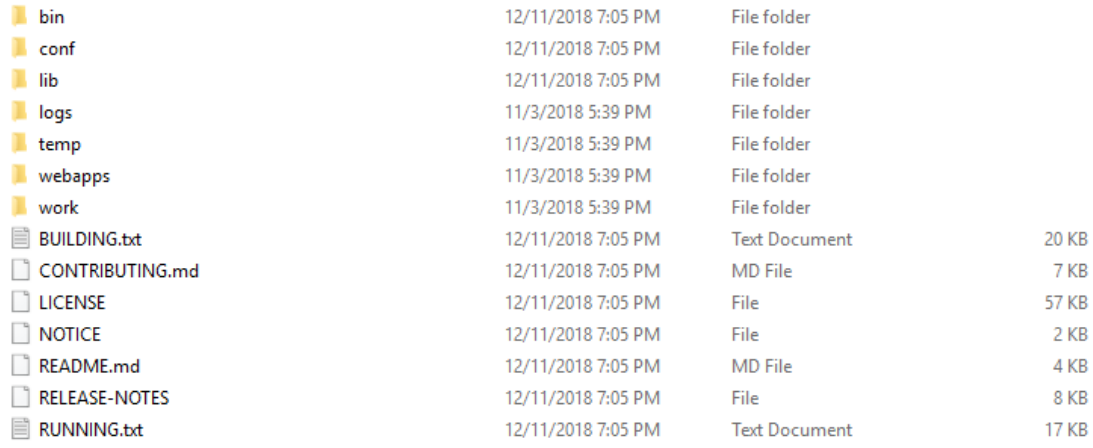
Apache Tomcat

1. Apache Tomcat is an open source Web server tool developed by the Apache Software Foundation (ASF).
2. Download tomcat below link.
   https://tomcat.apache.org/download-80.cgi

   Once downloaded the zip file extract the zip file.
3. What is structure of Tomcat?
   Its look like below.



bin	12/11/2018 7:05 PM	File folder	
conf	12/11/2018 7:05 PM	File folder	
lib	12/11/2018 7:05 PM	File folder	
logs	11/3/2018 5:39 PM	File folder	
temp	11/3/2018 5:39 PM	File folder	
webapps	11/3/2018 5:39 PM	File folder	
work	11/3/2018 5:39 PM	File folder	
BUILDING.txt	12/11/2018 7:05 PM	Text Document	20 KB
CONTRIBUTING.md	12/11/2018 7:05 PM	MD File	7 KB
LICENSE	12/11/2018 7:05 PM	File	57 KB
NOTICE	12/11/2018 7:05 PM	File	2 KB
README.md	12/11/2018 7:05 PM	MD File	4 KB
RELEASE-NOTES	12/11/2018 7:05 PM	File	8 KB
RUNNING.txt	12/11/2018 7:05 PM	Text Document	17 KB

   Here **bin** folder having scripts to run/stop a tomcat server.
   Conf folder having configuration files like server.xml,tomcat-users.xml,web.xml..etc
   Webapps folder whwere we are deploy the our web applications…

4. Here two configurations are most impotent i.e
   Tomcat-users.xml
   Server.xml

   Tomcat-users.xml file we will add the roles and tomcat server credentials under <tomcat-users> tag. Like below

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```
<tomcat-users>
  <role rolename="admin-gui"/>
  <role rolename="admin-script"/>
  <role rolename="manager-gui"/>
  <role rolename="manager-status"/>
  <role rolename="manager-script"/>
  <role rolename="manager-jmx"/>
  <user name="admin" password="admin" roles="admin-gui,admin-script,manager-gui,manager-status,manager-script,manager-jmx"/>
</tomcat-users>
```

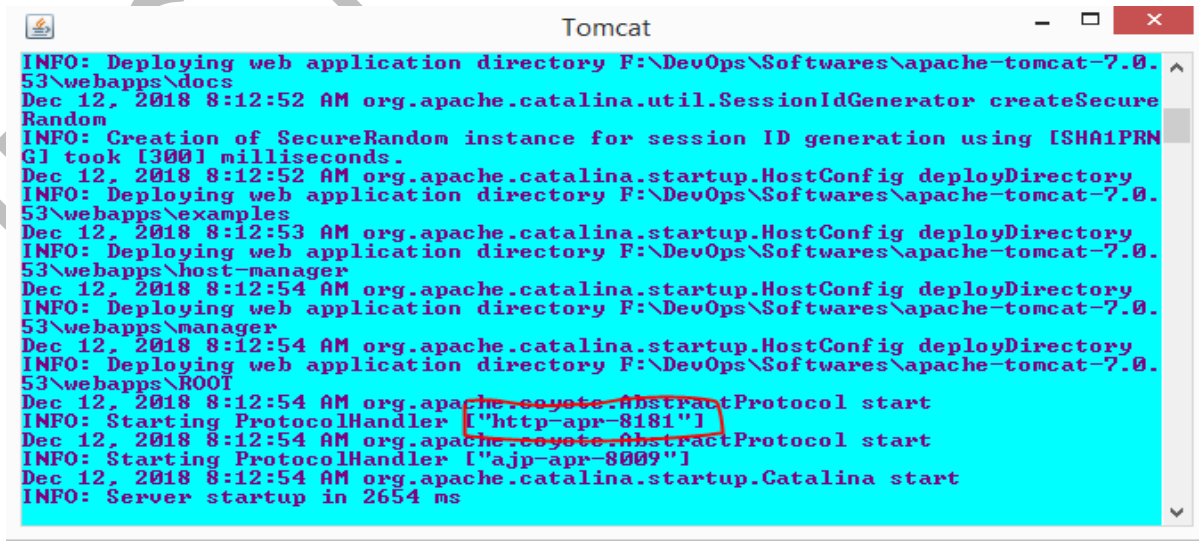
And **server.xml** file we can change the running ports adding ssl certificates ..etc

In your system already bind the 8080 port the server won't be start because **apache tomcat running 8080 port by default**.

If you want to change the port number follow the below step.

```
<Connector port="8181" protocol="HTTP/1.1"
           connectionTimeout="20000"
           redirectPort="8443" />
```

5. Now we modified server.xml and we added the roles and credentials in tomcat-users.xml lets start the server. To start the server goto bin folder and double click on **startup.bat** file if your using windows machine or ./startup.sh ix xmachine. Lets see the out of server st



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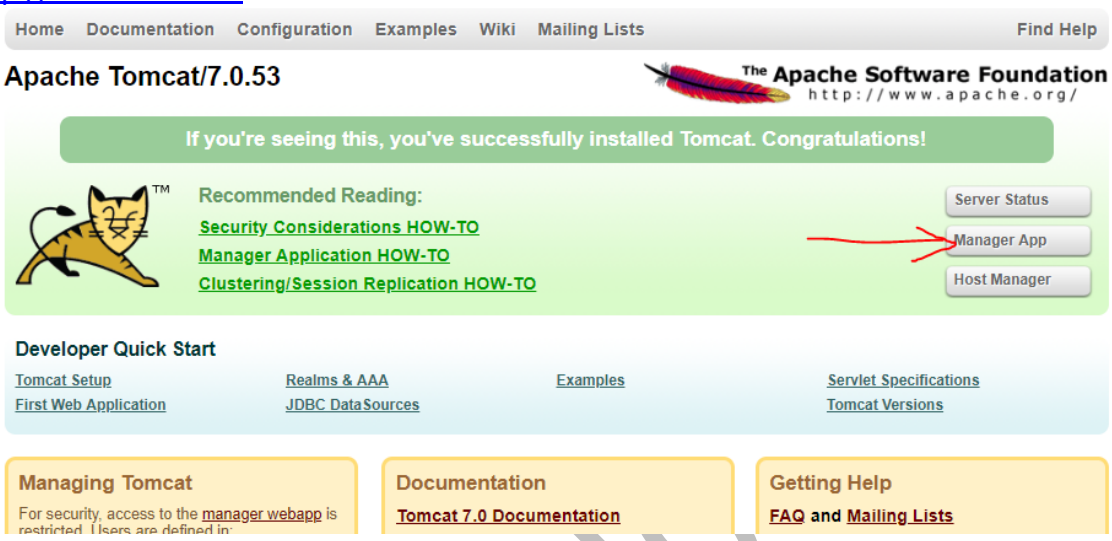
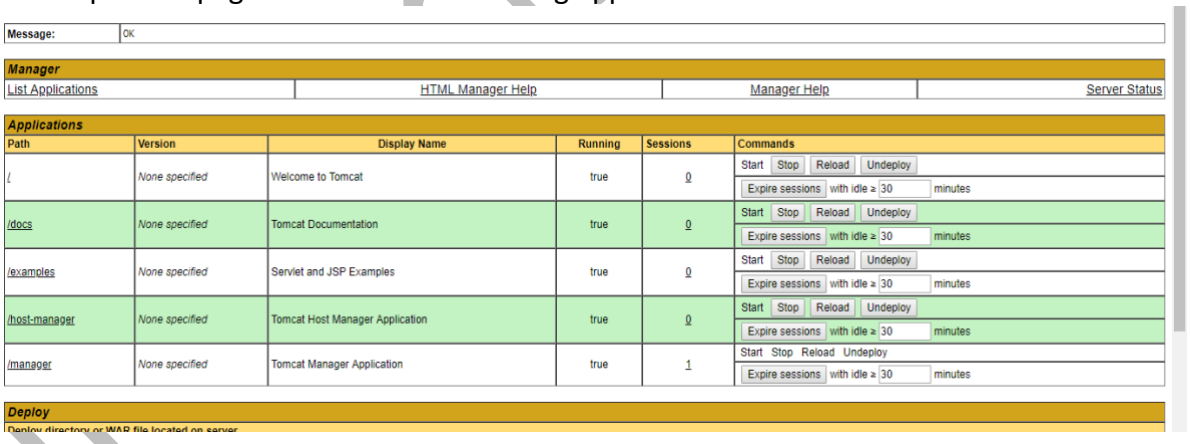
6. Once successfully start the server we can access our server using below url.

   http://localhost:8181



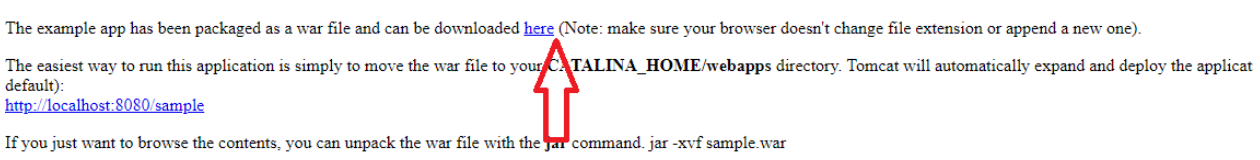
   it will open a tomcat web page to manager app button once click the manager app button it will ask username and password. Now give the username and password we provided in tomcat-users.xml file.

7. Once open the page we can see the running application inside tomcat server.



8. Let's deploy once sample war file in our tomcat server.
9. Download here a sample war file. use below link

   https://tomcat.apache.org/tomcat-5.5-doc/appdev/sample/



Sample Application

The example app has been packaged as a war file and can be downloaded here (Note: make sure your browser doesn't change file extension or append a new one).

The easiest way to run this application is simply to move the war file to your **CATALINA_HOME/webapps** directory. Tomcat will automatically expand and deploy the applicat default):
http://localhost:8080/sample

If you just want to browse the contents, you can unpack the war file with the **jar** command. jar -xvf sample.war

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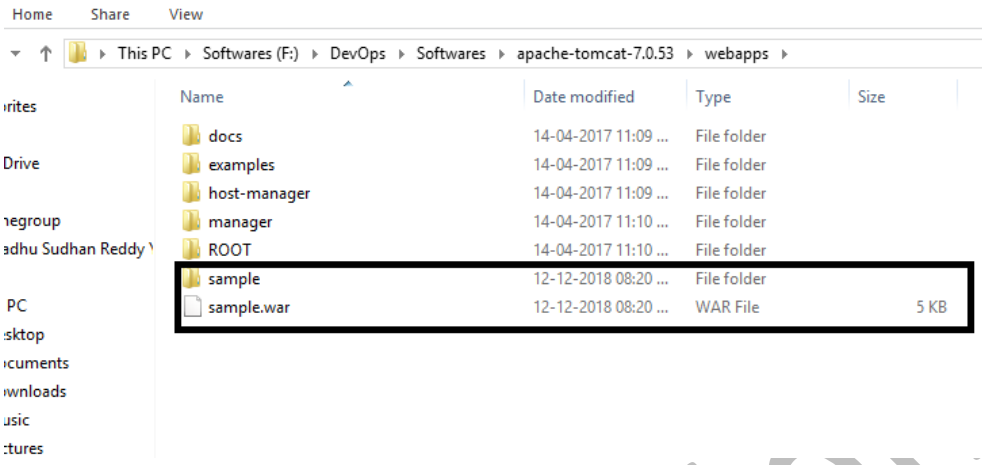
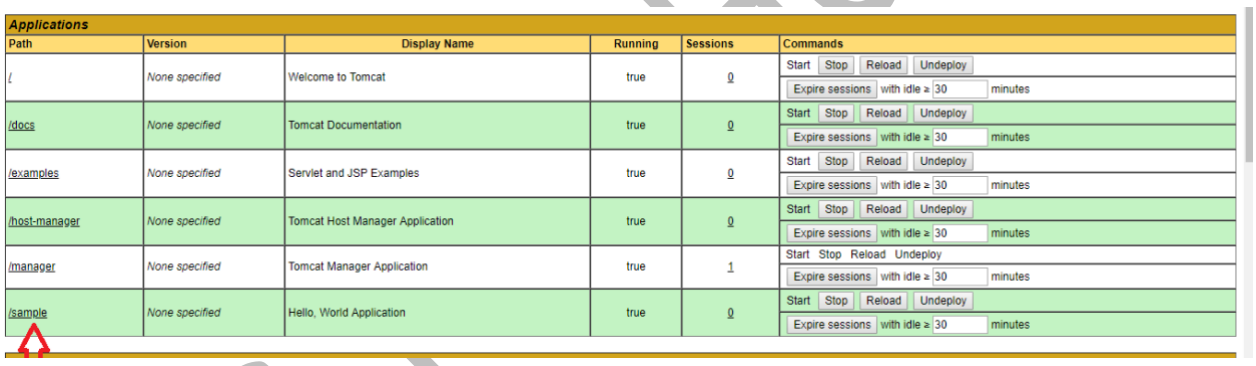
It will download the sample.war. copy this war under webapp folder and we can see the sample application inside tomcat webpage. Once you added the sample war file it will extract and it will create a application folder inside webapp folder.





Click sample application link it will open new page http://localhost:8181/sample/ for result of our deployed application.

Now if you want install Jenkin trough tomcat. Download the Jenkins war file and copy inside webapp folder.

Interview questions on Tomcat

1. What is apache Tomcat?
2. Why we will use Apache Tomcat?
3. What is tomcat container? / What is servlet container? Life cycle of servlet container?
4. What ate main configuration files in apache Tomcat?
5. What is Tomcat-user.xml file? What are the configurations we will do in this file?
6. What is server.xml file? What are the configurations we will do in this file?
7. Where we will add ssl configuration in apache tomcat server?
8. Under which folder we will deploy web application in tomcat server?
9. What is default port is running in apache tomcat server?

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10. How to change default port in apache tomcat server?
11. What is context path ?
12. What are the configurations in web.xml file?

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