

SERVLETS PART-3

Steps to develop web application:

- 1) Create a web application folder structure.
- 2) Create and compile web application source code(Servlet program).
- 3) Write deployment descriptor(web.xml).
- 4) Create a WAR(Web ARchive) file.
- 5) Start the server.
- 6) Deploy a war file on server.

1) Create a web application folder structure:

Administrator: Command Prompt

```
C:\>md htmlapp
C:\>cd htmlapp
C:\htmlapp>md WEB-INF
C:\htmlapp>cd WEB-INF
C:\htmlapp\WEB-INF>md classes
C:\htmlapp\WEB-INF>cd classes
```

2) Create and compile web application source code(Servlet Program):

HTMLServlet.java:

```
import java.io.*;
import javax.servlet.*;

public class HTMLServlet extends GenericServlet
{
    public void service(ServletRequest req, ServletResponse res)
    {
        try{
            PrintWriter pw=res.getWriter();
            pw.println("<html><body bgcolor=yellow text=blue>");
            pw.println("<h1>Welcome.....</h1>");
            pw.println("</body></html>");
        }catch(Exception e)
        {
            System.err.println(e);
        }
    }
}
```

Administrator: Command Prompt

```
C:\htmlapp\WEB-INF\classes>javac HTMLSe  
C:\htmlapp\WEB-INF\classes>cd..  
C:\htmlapp\WEB-INF>start notepad web.xml
```

3) Write deployment descriptor(web.xml):

web.xml:

```
<web-app>  
<servlet>  
<servlet-name>html</servlet-name>  
<servlet-class>HTMLServlet</servlet-class>  
</servlet>  
<servlet-mapping>  
<servlet-name>html</servlet-name>  
<url-pattern>/html</url-pattern>  
</servlet-mapping>  
</web-app>
```

4) Create a WAR(Web ARchive) file:

Administrator: Command Prompt

```
C:\htmlapp\WEB-INF>cd..
```

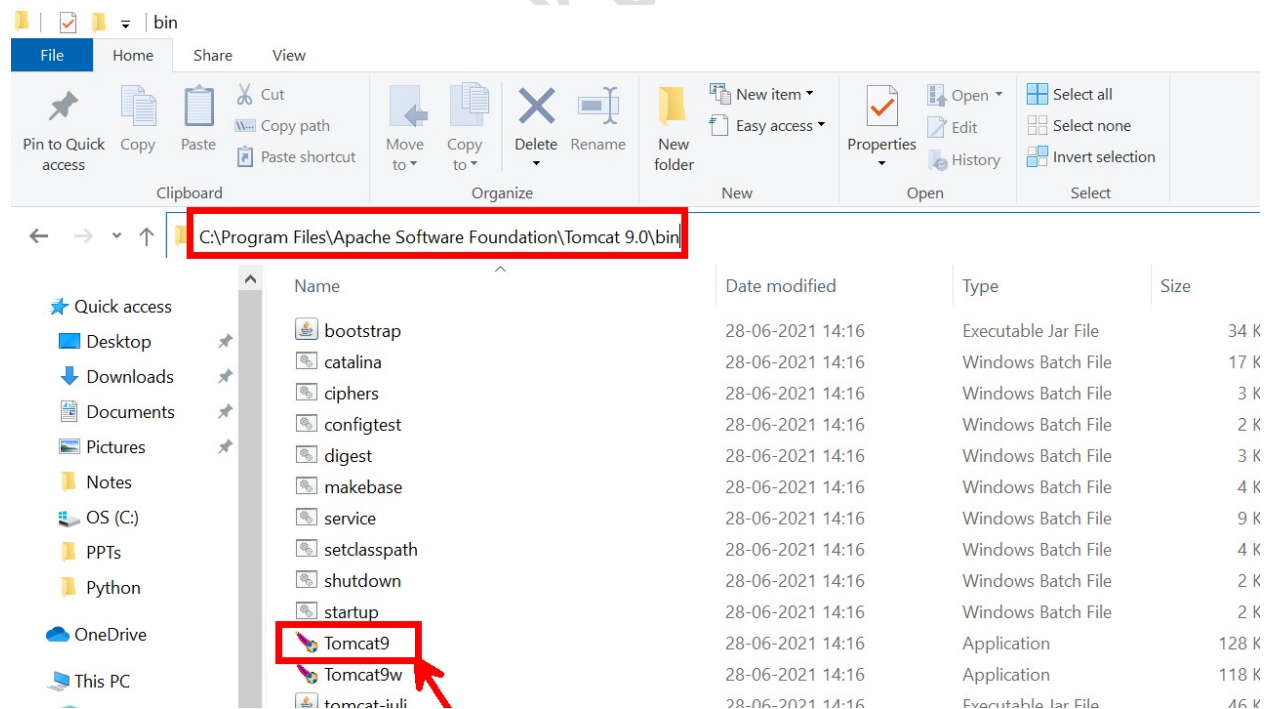
```
C:\htmlapp>jar cvf html.war .
```

It is a command and it is used to create JAR, WAR, EAR and RAR files

It means all files in the directory(html.war file).

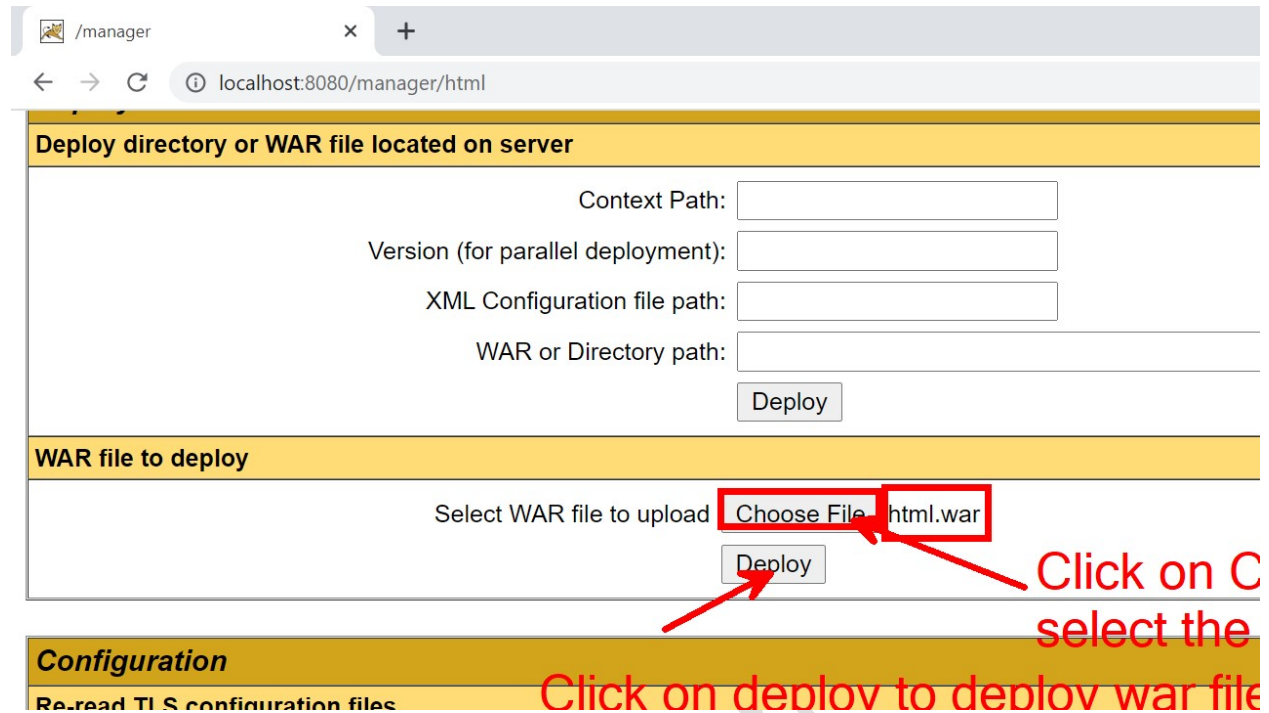
c means Create
v means Verbose
f means File to be created

5) Start the server:



6) Deploy a war file on server:

The image shows two screenshots of a web browser. The top screenshot displays the Apache Tomcat 9.0.50 homepage at <http://localhost:8080>. The address bar has <http://localhost:8080> highlighted with a red box. The page features a green banner with the message "If you're seeing this, you've successfully installed Tomcat. Congratulations!". Below this, there is a section for "Recommended Reading" with links to "Security Considerations How-To", "Manager Application How-To", and "Clustering/Session Replication How-To". To the right, there are buttons for "Server Status", "Manager App" (highlighted with a red box and a red arrow), and "Host Manager". The bottom section includes "Developer Quick Start" links and three boxes for "Managing Tomcat", "Documentation", and "Getting Help". The bottom screenshot shows the "localhost:8080/manager/html" page. It displays a "Sign in" dialog box with the URL "http://localhost:8080", a "Username" field containing "admin", and a "Password" field with masked characters. A red arrow points to the "Sign in" button in the dialog box.



The screenshot shows the Tomcat Manager web interface at `localhost:8080/manager/html`. It features three main sections: "Deploy directory or WAR file located on server", "WAR file to deploy", and "Configuration". The first section has input fields for "Context Path", "Version (for parallel deployment)", "XML Configuration file path", and "WAR or Directory path", followed by a "Deploy" button. The second section, "WAR file to deploy", has a "Select WAR file to upload" label, a "Choose File" button (highlighted with a red box), and a "Deploy" button. A red arrow points from the "Choose File" button to the "Deploy" button. The third section, "Configuration", has a "Re-read T L S configuration files" label. Red text annotations are present: "Click on C select the" next to the "Choose File" button and "Click on deploy to deploy war file" next to the "Deploy" button.

Deploy directory or WAR file located on server

Context Path:

Version (for parallel deployment):

XML Configuration file path:

WAR or Directory path:

Deploy

WAR file to deploy

Select WAR file to upload

Deploy

Click on C select the

Click on deploy to deploy war file

Configuration

Re-read T L S configuration files

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