PART A-Download and configure eclipse IDE and tomcat server

1. Download Eclipse and Tomcat zip folder of any version(try choosing latest version)
2. Set runtime environment of tomcat in eclipse
   - Windows
   - Preferences
   - Server
   - Runtime environment
   - Choose the version of apache
   - Then add the path of the tomcat includes all the folders.
3. Add the server

PART-B

Let's see the steps, you need to follow to create the first servlet example.

- Create a Dynamic web project
- create a servlet
- add servlet-api.jar file
- Run the servlet

1) Create the dynamic web project:

For creating a dynamic web project

click on File Menu -> New -> Dynamic web project -> write your project name e.g. first -> Finish.

2) Create the servlet in eclipse IDE:

For creating a servlet, **explore the project by clicking the + icon -> explore the Java Resources -> right click on project or application -> New -> servlet -> write your servlet name e.g. Hello -> uncheck all the checkboxes except doGet() -> next -> Finish**.

3) add jar file in eclipse IDE:

For adding a jar file, **right click on your project -> Build Path -> Configure Build Path**

-> click on Libraries tab in Java Build Path -> click on Add External JARs button
-> select the servlet-api.jar file under tomcat/lib -> ok.

4) Start the server and deploy the project:

For starting the server and deploying the project in one step, **Right click on your project -> Run As -> Run on Server -> choose tomcat server -> next -> addAll -> finish.**

Program 11

 A web application that takes name and age from an HTML page. If the age is less than 18, it should send a page with "Hello , you are not authorized to visit the site" message, where should be replaced with the entered name. Otherwise it should send "Welcome to this site" message.

AIM: To design an application to validate age are less than 18 or more than 18 using SERVLET.

index.html:

```html
<html
<head>
    <title>VoterApp</title>
</head>
<body>
    <form action= "http://localhost:8080/CheckAge/check" method="get">
        <fieldset style="width:20%; background-color:#80ffcc">
            <table>
                <tr><td>Name</td><td><input type="text" name="name"></td></tr>
                <tr><td>Age</td><td><input type="text" name="age"></td></tr>
                <tr><td></td>
                <td><input type = "submit" value="Check Eligibility"></td></tr>
        </table>
    </fieldset>
        </form>
    </body>
</html>
```

VoterSrv.java:
```java
import java.io.*;
import java.util.*;
```

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

public class VoterSrv extends HttpServlet

{
    public void service(HttpServletRequest req, HttpServletResponse res) throws
    IOException,ServletException
    {
            //set response content type
             res.setContentType("text/html");
            //get printWrite obj
            PrintWriter pw = res.getWriter();
            //read form data from page as request parameter
            String name = req.getParameter("name");
            int age = Integer.parseInt(req.getParameter("age")); if (age>=18)
            {
            pw.println("<font color='green' size='4'>Welcome "+name+" to this
site</font>");
            }
            else
pw.println("<font color='red' size='4'>Hello "+name+", you are not authorized to visit the
site</font>");

            //add hyperlink to dynamic page
             pw.println("<br><br><a href= 'index.html'>back</a>");
            //close the stream
            pw.close();
            }
            }
```

web.xml:

```xml
<web-app>
    <servlet>
        <servlet-name>abc</servlet-name>
        <servlet-class>VoterSrv</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>abc</servlet-name>
        <url-pattern>/check</url-pattern>
    </servlet-mapping>
</web-app>
```

12. A web application that takes a name as input and on submits it shows a hello <name> page where name is taken from the request. It shows the start time at the righttop corner of the page and provides a logout button. On clicking this button, it should show a logout page with

Thank You <name > message with the duration of usage (hint: Use session to store name and time) USING JSP.

Sessionjsp.html

```
<html>
<head> <title> SESSION LOGIN </title> </head>
<body>
<center>
<form action="http://localhost:8080/jsp/Session1.jsp"
method="get">Enter Name: <input type="text"
name="uname"> <br>
<input type="submit" value="LOGIN" name="register">
</form>
</center>
</body>
</html>
```

Session1.jsp

```
<%@page language="java" import="java.util.*" errorPage=""%>
<form method="get" action="http://localhost:8080/jsp/Session2.jsp">
<%
Date d=new Date();
%>
<p align="right"> Time;<%=d.getTime()%></p>
<%
String
un=request.getParameter("uname
");session.setAttribute("user",un);
session.setAttribute("time",d.getT
ime());
%>
Hello <%=un%>
<br><br>
<input type="submit" value="logout">
</form>
```

Session2.jsp

```
<%@page language="java" import="java.util.*" errorPage=""%>
<%
Date d2=new Date();
String
un=(String)session.getAttribute("user
");Long
t1=(Long)session.getAttribute("time")
; Long t2=d2.getTime();
```

```
%>
Thank you <%=un%>
<br><br>
Session duration: <%=(t2-t1)/(60*60)%> seconds
<% session.invalidate();%>
```