Advanced Java

Assignment- 4

(Program on Servlets)

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Q1:

Write a program to create simple registration form in servlet (Parameters to consider Name, Password, Email, Country)

studentRegistration.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action=*"studentRegistrartion"*>

Name: <**input** type=*"text"* name=*"st\_name"*>

<**br**>

Password: <**input** type=*"password"* name=*"st\_pass"*>

<**br**>

Email: <**input** type=*"email"* name=*"st\_email"*>

<**br**>

Country: <**input** type=*"text"* name=*"st\_country"*>

<**br**>

<**button**>Submit</**button**>

</**form**>

</**body**>

</**html**>

studentRegistration.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import java.sql.Statement;

public class studentRegistrartion extends HttpServlet {

private static final long serialVersionUID = 1L;

public studentRegistrartion() {

super();

}

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

String DB\_URL = "jdbc:mysql://localhost:3306/ServletAssignment";

String DB\_Username = "root";

String DB\_Password = "Gsnp@424343";

try {

Connection conn = DriverManager.getConnection(DB\_URL, DB\_Username, DB\_Password);

String crateTable = "CREATE TABLE IF NOT EXISTS studentRegistration(Name varchar(20), Password varchar(20), Email varchar(50), Country varchar(20), Primary key(Email))";

Statement stmt = conn.createStatement();

stmt.execute(crateTable);

String name = request.getParameter("st\_name");

String password = request.getParameter("st\_pass");

String email = request.getParameter("st\_email");

String country = request.getParameter("st\_country");

String insertQuery = "INSERT INTO studentRegistration(Name, Password, Email, Country) VALUES (?,?,?,?)";

PreparedStatement pstmt = conn.prepareStatement(insertQuery);

pstmt.setString(1,name);

pstmt.setString(2, password);

pstmt.setString(3, email);

pstmt.setString(4, country);

pstmt.executeUpdate();

PrintWriter pw = response.getWriter();

pw.printf("\n Value Inserted Successfully");

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

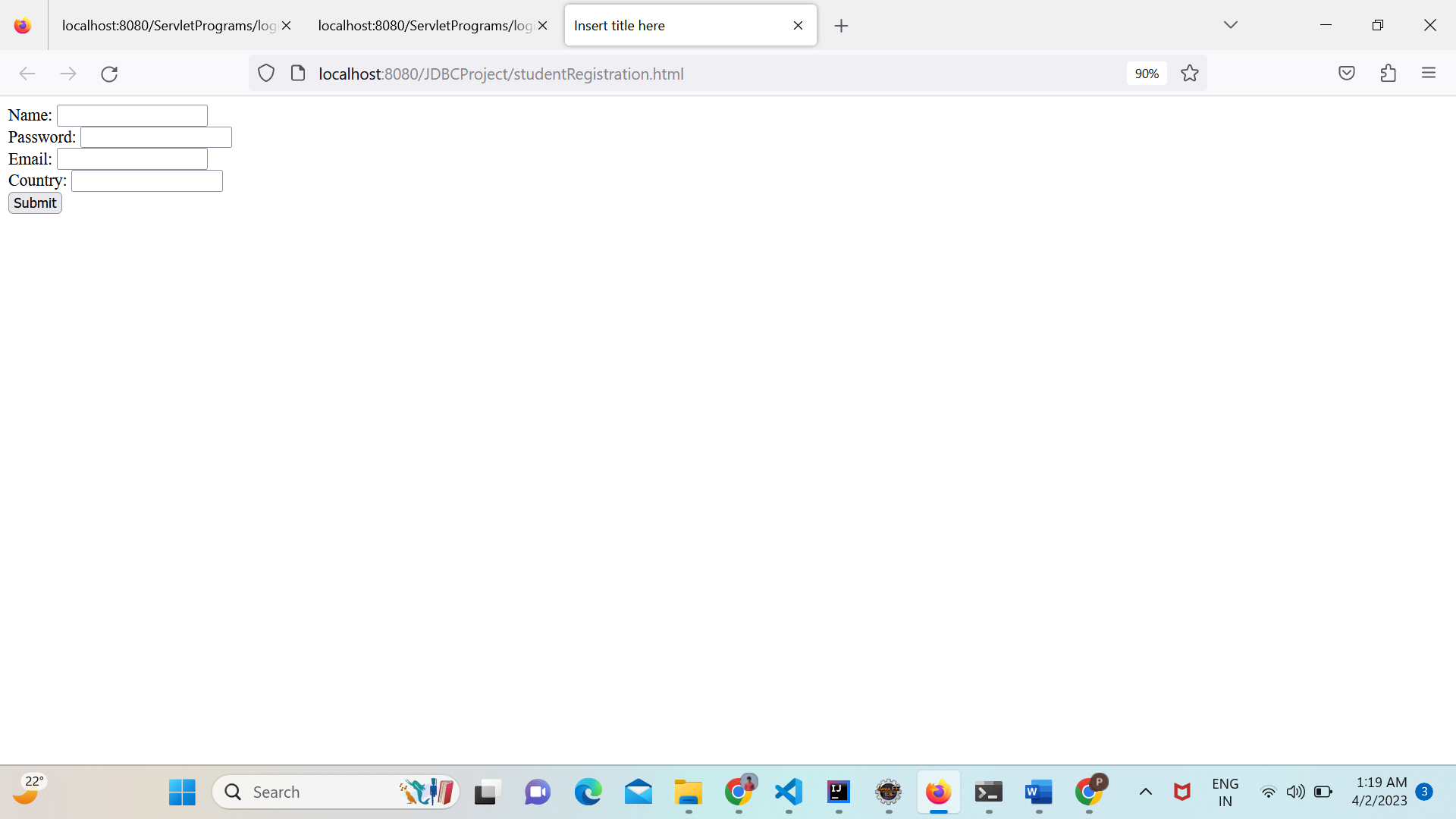
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

Output:  


Graphical user interface, text, application, Word

Description automatically generated

Q2:

Write a program to fetch the Result for a Roll No. using servlets and getting the data from the database having attributes as  
Name, Roll NO, Result and Grade. Write a program to upload a file on server in servlet.

studentRollNo.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action=*"studentDetails"*>

Enter Roll No: <**input** type=*"number"* name=*"roll\_no"*>

<**br**>

<**button**>Submit</**button**>

</**form**>

</**body**>

</**html**>

studentRollNo.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

public class studentDetails extends HttpServlet {

private static final long serialVersionUID = 1L;

public studentDetails() {

super();

// TODO Auto-generated constructor stub

}

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

String URL="jdbc:mysql://localhost:3306/ServletAssignment";

String USERNAME="root";

String PASSWORD="Gsnp@424343";

PrintWriter pw = response.getWriter();

response.setContentType("text/html");

pw.println("<html><body>");

try {

Connection conn = DriverManager.getConnection(URL, USERNAME, PASSWORD);

int rollNo = Integer.parseInt(request.getParameter("roll\_no"));

String s = "Select \* from studentresult where RollNo=?";

PreparedStatement pstmt = conn.prepareStatement(s);

pstmt.setInt(1,rollNo);

ResultSet rs = pstmt.executeQuery();

pw.println("<table border=5px>");

pw.println("<tr><td><b> Name </b></td><td><b> RollNo </b></td><td><b> Result </b></td></tr>");

while(rs.next())

{

String name = rs.getString(1);

int roll\_no = rs.getInt(2);

float result = rs.getFloat(3);

pw.println("<br><td>"+name+"</td><td>"+roll\_no+"</td><td>"+result+"</td>");

}

pw.println("</table>");

}catch(Exception e) {

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

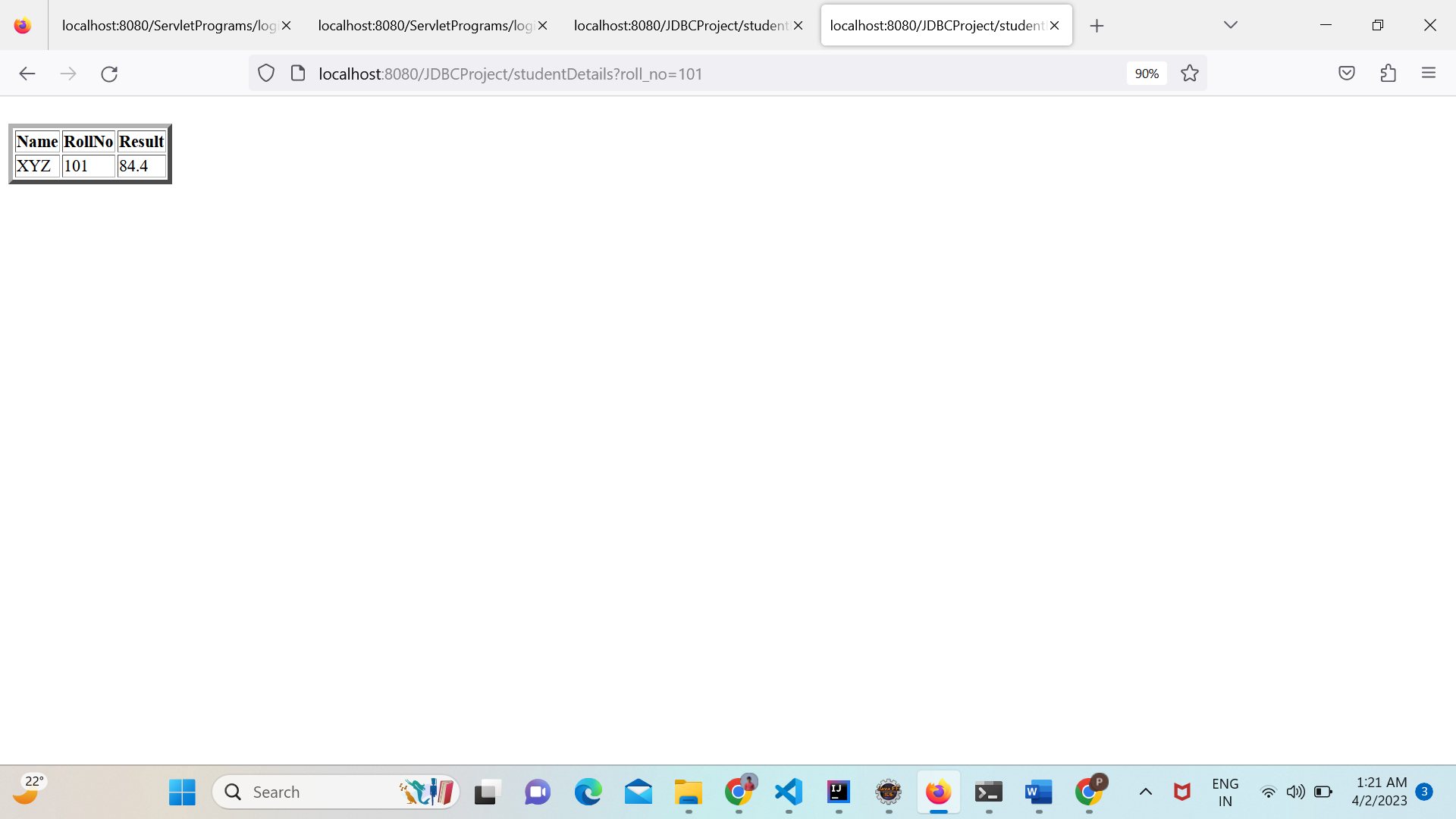
// TODO Auto-generated method stub

doGet(request, response);

}

}

Output:



Graphical user interface, application, Word

Description automatically generated

Q3:

Write a program to download a file from server in servlet.

downloadFile.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**a** href=*"downloadFile"*>Download File</**a**>

</**body**>

</**html**>

downloadFile.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.FileInputStream;

import java.io.IOException;

import java.io.PrintWriter;

/\*\*

\* Servlet implementation class downloadFile

\*/

public class downloadFile extends HttpServlet {

private static final long serialVersionUID = 1L;

public downloadFile() {

super();

// TODO Auto-generated constructor stub

}

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter pw = response.getWriter();

String filename = "abc.txt";

String filepath = "C:\\Users\\Poojan Patel\\eclipse-workspace\\ServletPrograms\\src\\main\\webapp\\";

response.setContentType("APPLICATION/OCTET-STREAM");

response.setHeader("Content-Disposition", "attachment; filename=\"" + filename + "\"");

FileInputStream fileInput = new FileInputStream(filepath+filename);

int i;

while((i = fileInput.read()) != -1 ) {

pw.write(i);

}

fileInput.close();

pw.close();

}

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

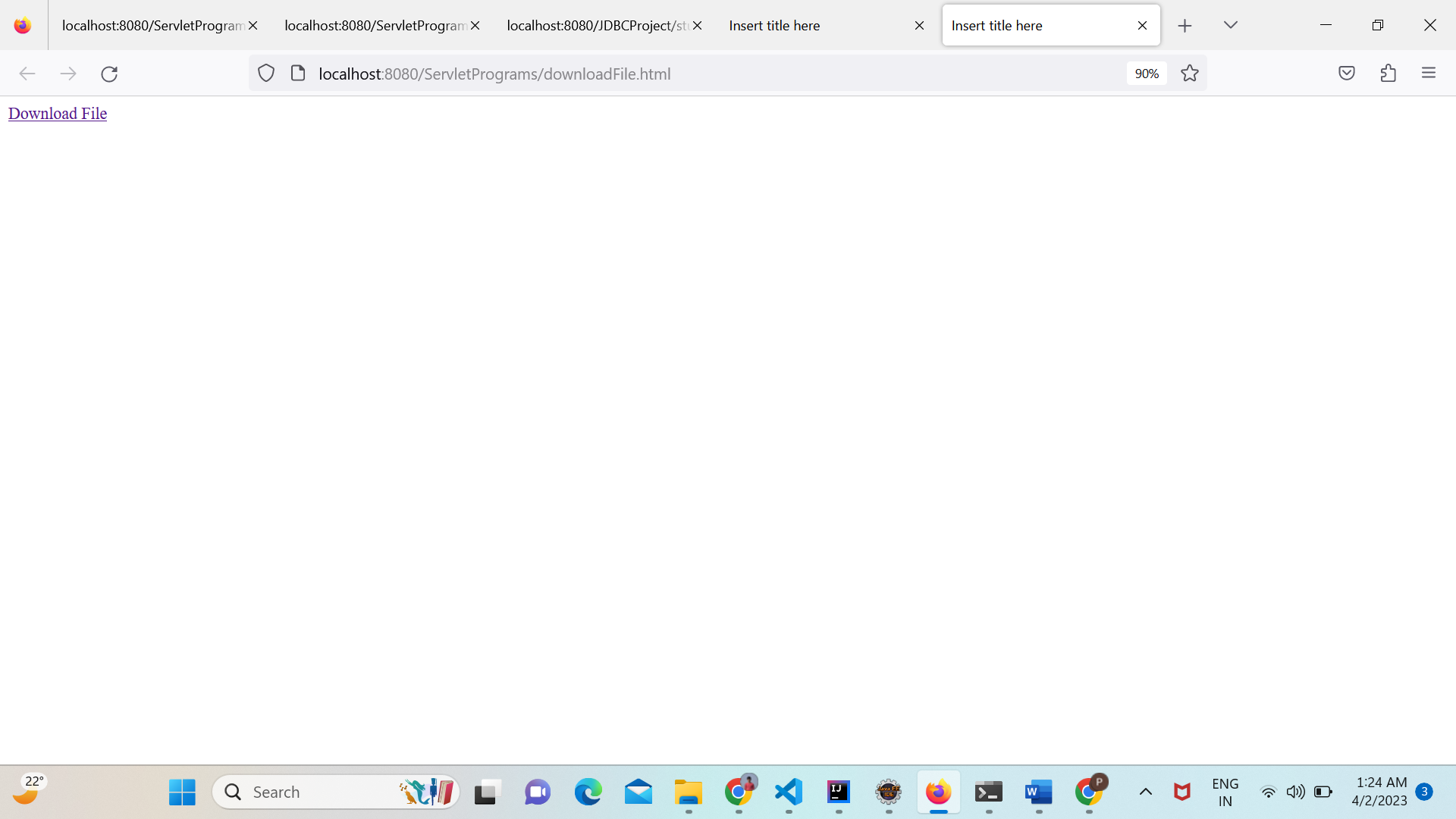
// TODO Auto-generated method stub

doGet(request, response);

}

}

Output:



Graphical user interface, application, Word

Description automatically generated

Q5:

Write Servlet application to print current date & time

showDateTime.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**a** href=*"showDateTime"*>Show current date and time</**a**>

</**body**>

</**html**>

showDateTime.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

import java.time.LocalDateTime;

import java.time.format.DateTimeFormatter;

public class showDateTime extends HttpServlet {

private static final long serialVersionUID = 1L;

public showDateTime() {

super();

// TODO Auto-generated constructor stub

}

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

DateTimeFormatter dtf = DateTimeFormatter.ofPattern("yyyy/MM/dd HH:mm:ss");

LocalDateTime now = LocalDateTime.now();

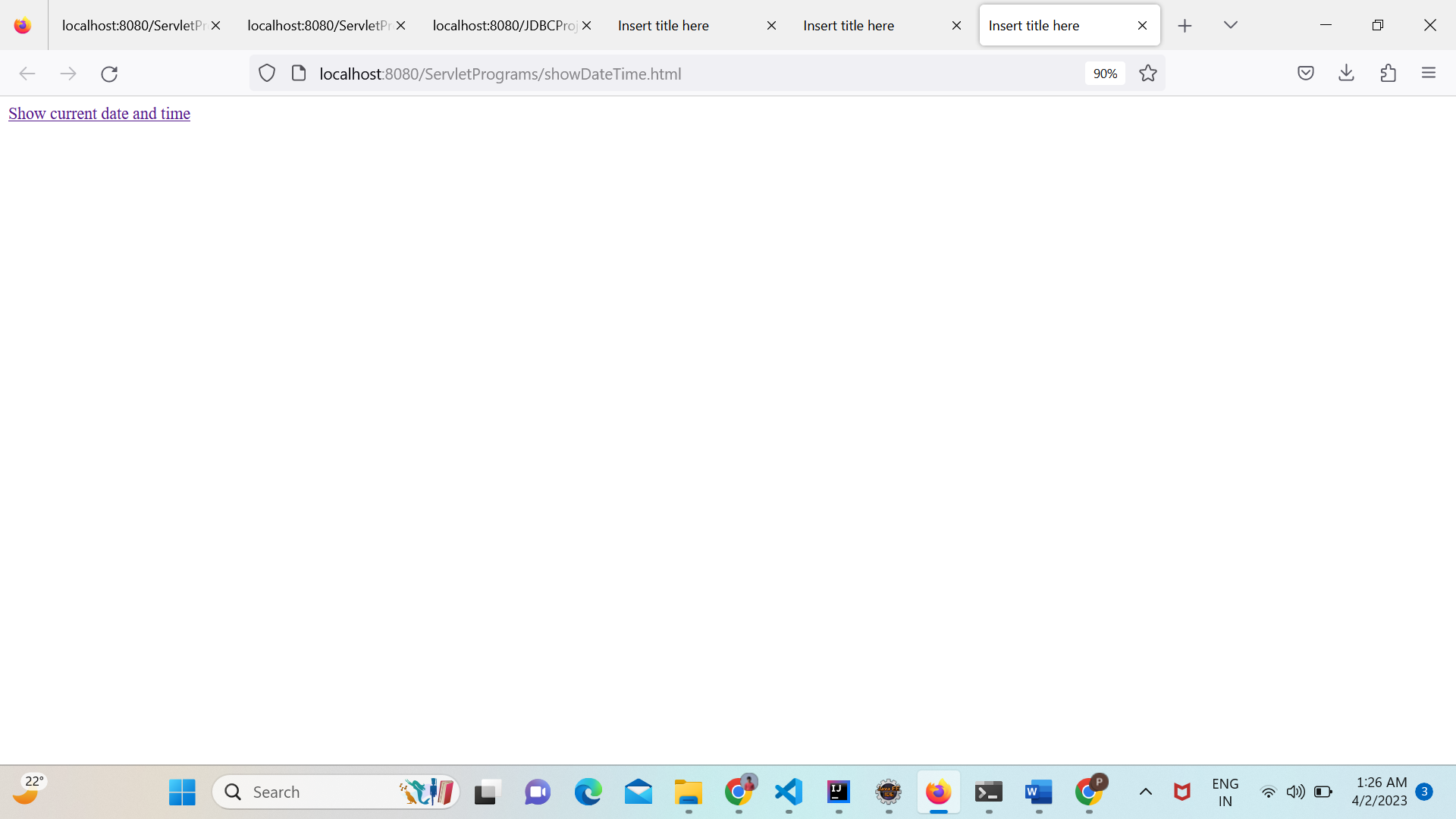
PrintWriter pw = response.getWriter();

pw.print("Current Date and time:"+ dtf.format(now));

}

}

Output:



Graphical user interface, application, Word

Description automatically generated

Q6:

Write Servlet application for Html & Servlet Communication

Index.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action=*"addition"*>

Number 1: <**input** type=*"number"* name=*"no1"*>

<**br**>

Number 2: <**input** type=*"number"* name=*"no2"*>

<**br**>

<**input** type=*"submit"*>

</**form**>

</**body**>

</**html**>

Addition.html

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

/\*\*

\* Servlet implementation class addition

\*/

public class addition extends HttpServlet {

private static final long ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

public addition() {

super();

// **TODO** Auto-generated constructor stub

}

/\*\*

\* **@see** HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

int no1 = Integer.*parseInt*(request.getParameter("no1"));

int no2 = Integer.*parseInt*(request.getParameter("no2"));

int result = no1 + no2;

PrintWriter pw = response.getWriter();

pw.printf("Addition of two number is %d",result);

}

/\*\*

\* **@see** HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

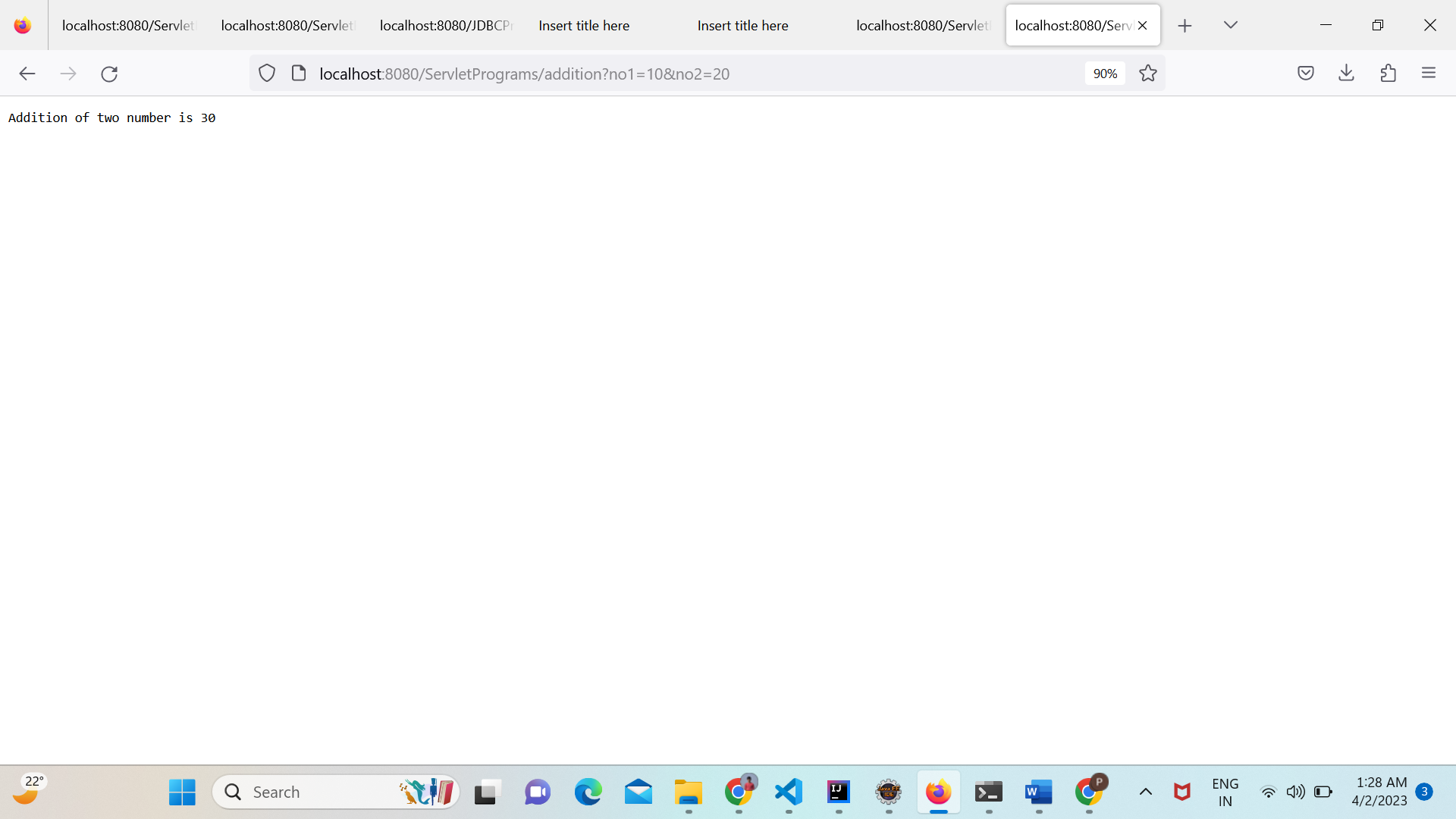
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// **TODO** Auto-generated method stub

doGet(request, response);

}

}

Output:  


Q7:

Write Servlet application Auto refresh a page

autoRefreshPage.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**a** href=*"autoRefreshPage"*>AUTO REFRESH PAGE</**a**>

</**body**>

</**html**>

autoRefereshPage.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

import java.util.Calendar;

import java.util.GregorianCalendar;

/\*\*

\* Servlet implementation class autoRefreshPage

\*/

public class autoRefreshPage extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setIntHeader("refresh", 1);

response.setContentType("text/html; charset-UTF-8");

PrintWriter pw = response.getWriter();

Calendar cal = new GregorianCalendar();

String noon;

int hour = cal.get(Calendar.HOUR);

int minute = cal.get(Calendar.MINUTE);

int seconds = cal.get(Calendar.SECOND);

if(cal.get(Calendar.AM\_PM) == 0) {

noon = "AM";

}

else {

noon = "PM";

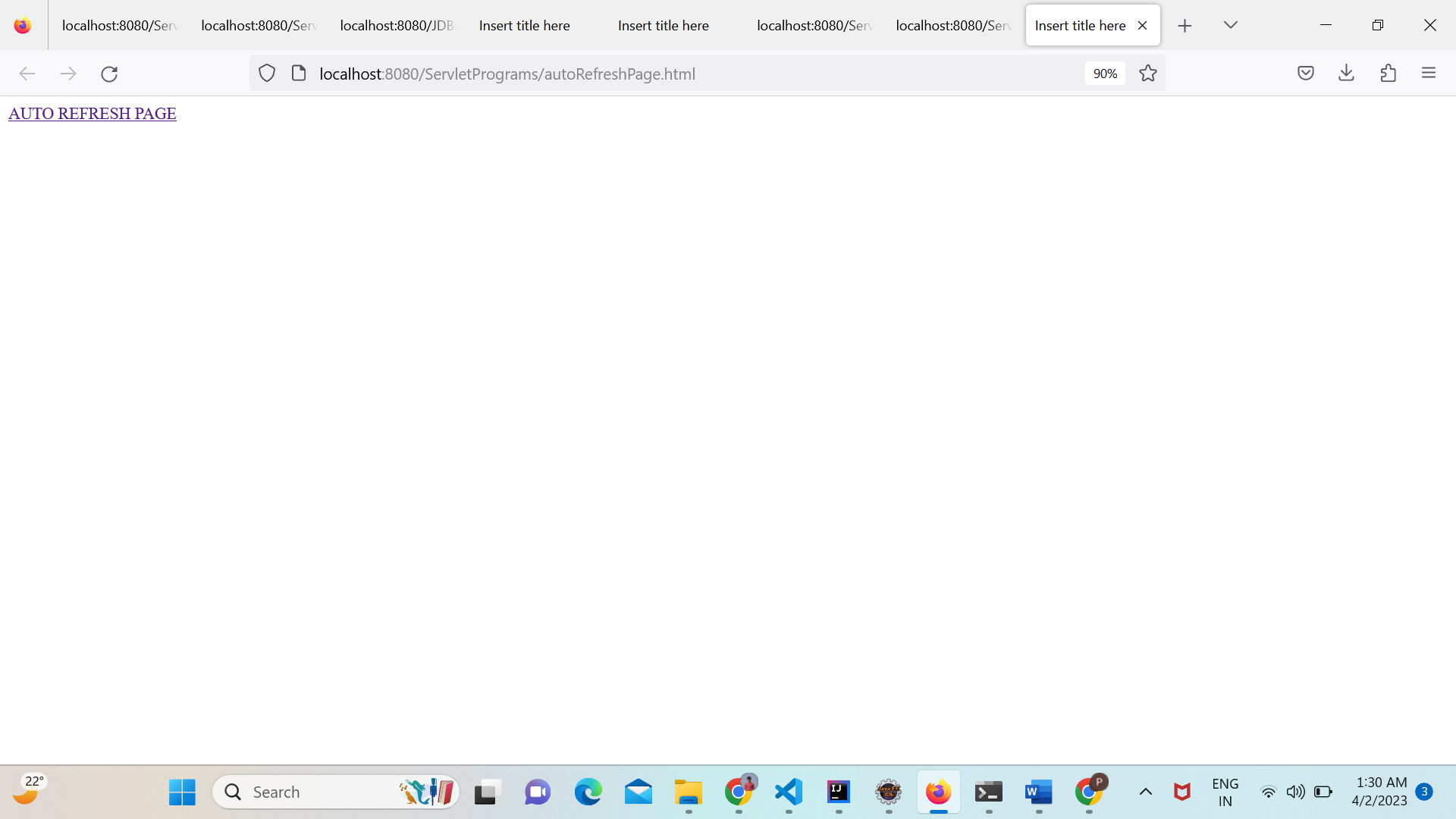
}

String currentTime = hour + ": "+minute + ": "+seconds+ " "+noon;

pw.print(currentTime);

}

}

Output:  


Graphical user interface, application, Word

Description automatically generated

Q8:

Write Servlet application to Demonstrate session tracking

Addition.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action=*"SessionExample"*>

Number 1: <**input** type=*"number"* name=*"no1"*>

<**br**>

Number 2: <**input** type=*"number"* name=*"no2"*>

<**br**>

<**input** type=*"submit"*>

</**form**>

</**body**>

</**html**>

sessionExample.java

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

/\*\*

\* Servlet implementation class SessionExample

\*/

public class SessionExample extends HttpServlet {

private static final long serialVersionUID = 1L;

public SessionExample() {

super();

}

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

int no1 = Integer.parseInt(request.getParameter("no1"));

int no2 = Integer.parseInt(request.getParameter("no2"));

int result = no1 + no2;

HttpSession session = request.getSession();

session.setAttribute("result", result);

response.sendRedirect("SessionExample2");

// request.setAttribute("result", result);

// RequestDispatcher rp = request.getRequestDispatcher("SessionExample2");

// rp.forward(request, response);

}

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

doGet(request, response);

}

}

sessionExample2.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import java.io.PrintWriter;

public class SessionExample2 extends HttpServlet {

private static final long serialVersionUID = 1L;

public SessionExample2() {

super();

}

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

HttpSession session = request.getSession();

int result = (int)session.getAttribute("result");

// int result = (int)request.getAttribute("result");

// int result = Integer.parseInt(request.getParameter("result"));

PrintWriter pw = response.getWriter();

for(int i=1;i<=10;i++)

{

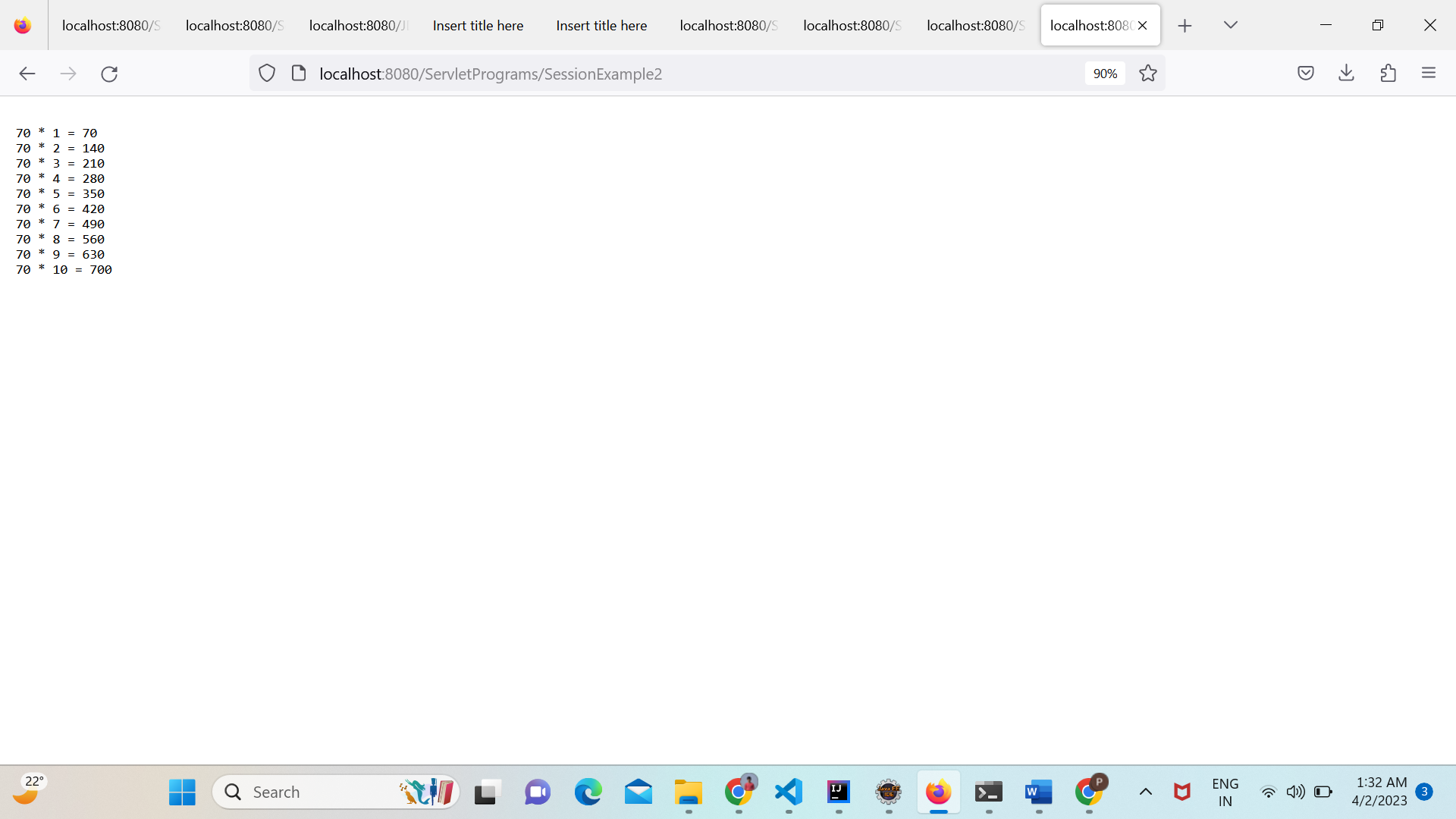
pw.printf("\n %d \* %d = %d",result,i,result\*i);

}

}

}

Output:



Q9:

Write Servlet application Select record from database

Bill\_no.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action=*"bill\_details"*>

Enter bill no: <**input** type=*"number"* name=*"bill\_no"*>

<**br**>

<**button**>Submit</**button**>

</**form**>

</**body**>

</**html**>

Bill\_No.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

/\*\*

\* Servlet implementation class bill\_details

\*/

public class bill\_details extends HttpServlet {

private static final long serialVersionUID = 1L;

public bill\_details() {

super();

}

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

String URL="jdbc:mysql://localhost:3306/bill";

String USERNAME="root";

String PASSWORD="Gsnp@424343";

PrintWriter pw = response.getWriter();

response.setContentType("text/html");

pw.println("<html><body>");

try {

Connection conn = DriverManager.getConnection(URL, USERNAME, PASSWORD);

int bill\_no = Integer.parseInt(request.getParameter("bill\_no"));

int total=0;

String s = "Select \* from bill\_master where Bill\_No=?";

PreparedStatement pstmt = conn.prepareStatement(s);

pstmt.setInt(1,bill\_no);

ResultSet rs = pstmt.executeQuery();

while(rs.next())

{

int b\_no = rs.getInt(1);

String name = rs.getString(2);

String date = rs.getString(3);

pw.println("<h5>Bill No: "+ b\_no + "</h5>");

pw.println("<h5>Customer Name: "+ name + "</h5>");

pw.println("<h5>Date: "+ date + "</h5>");

}

String s2 = "select Item\_Name,Quantity,Rate from bill\_details,bill\_master where bill\_details.Bill\_No=? and bill\_details.Bill\_No=bill\_master.Bill\_No";

PreparedStatement pstmt2 = conn.prepareStatement(s2);

pstmt2.setInt(1, bill\_no);

pw.println("<table border=5px>");

pw.println("<tr><td><b> ItemName </b></td><td><b> Quantity</b></td><td><b> Rate</b></td><td><b> Total </b></td></tr>");

ResultSet rs2 = pstmt2.executeQuery();

while(rs2.next())

{

String item\_name = rs2.getString(1);

int quantity = rs2.getInt(2);

int rate = rs2.getInt(3);

int total1 = quantity\*rate;

pw.println("<br><td>"+item\_name+"</td><td>"+quantity+"</td><td>"+rate+"</td><td>"+total1+"</td>");

total = total+total1;

}

pw.println("</table>");

pw.println("<br><br>");

pw.println("\n Total bill is :"+ total +" Rupees");

}

catch (SQLException e) {

// TODO Auto-generated catch block

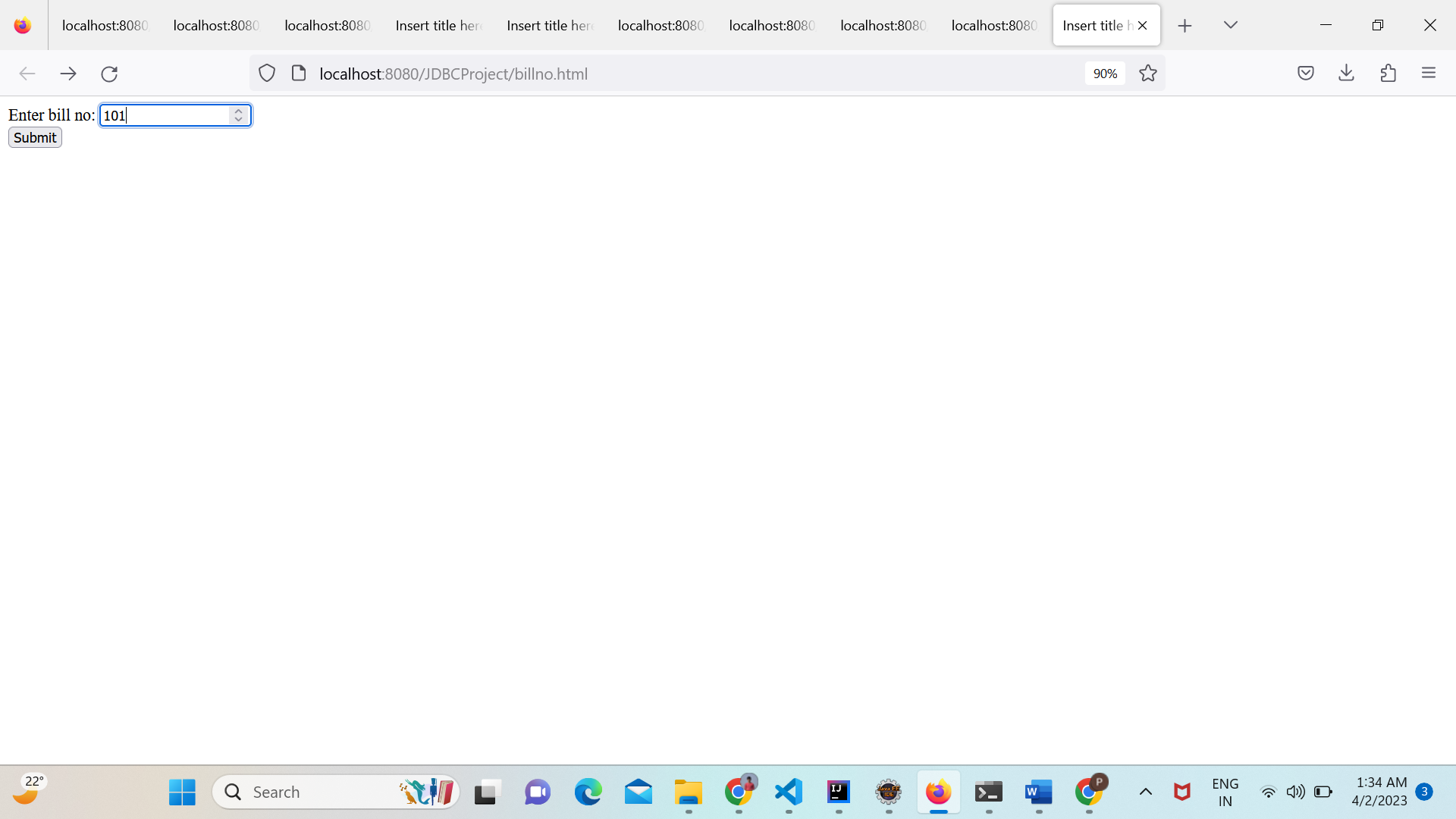
e.printStackTrace();

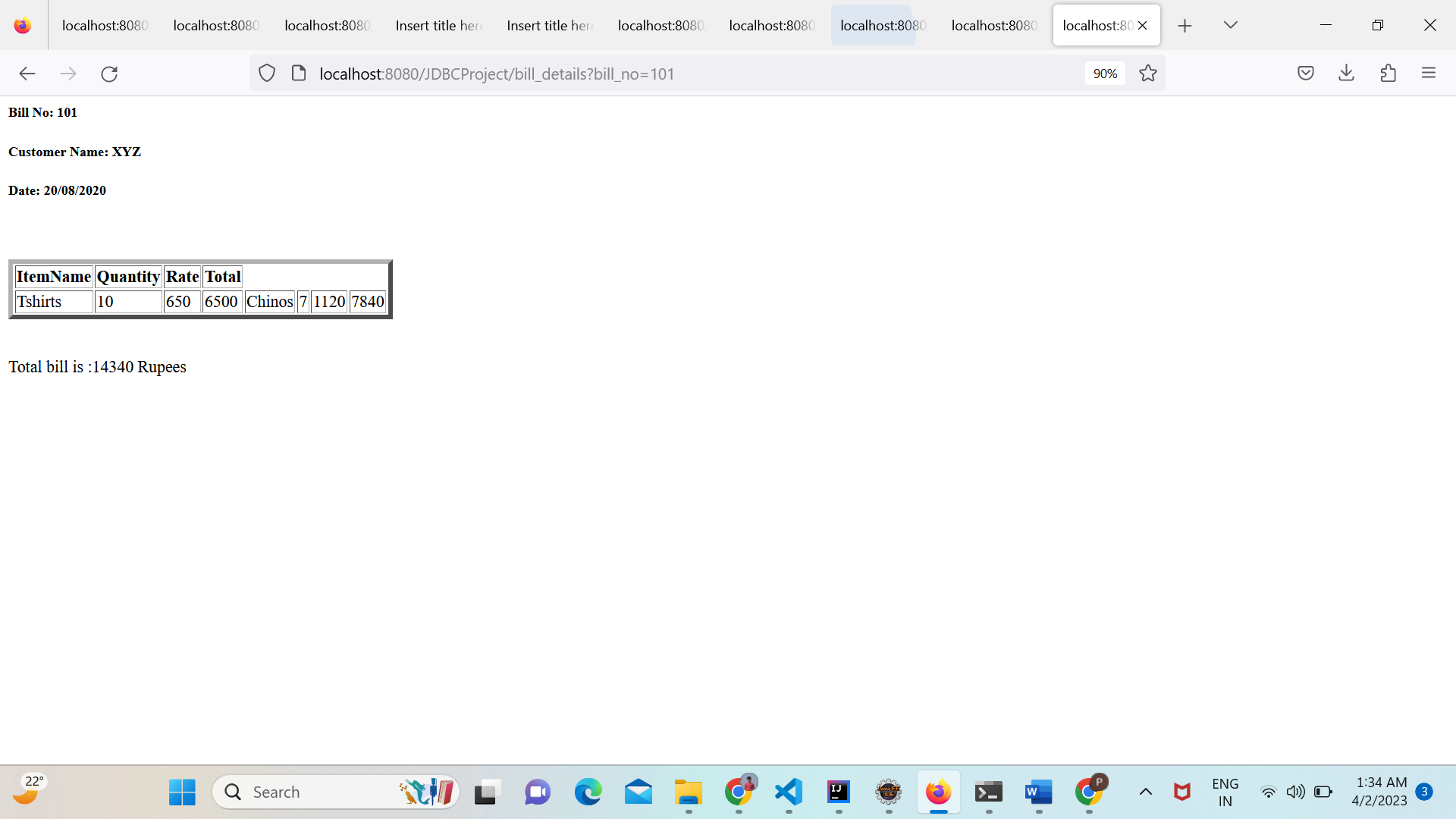
}

}

}

Output:





Q10:

Write Servlet application for login page

Login.html

<!**DOCTYPE** html>

<**html**>

<**head**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**form** action=*"loginForm"*>

Login Id: <**input** type=*"text"* name=*"username"*>

<**br**>

Password: <**input** type=*"password"* name=*"password"*>

<**br**>

<**button**>Submit</**button**>

</**form**>

</**body**>

</**html**>

Login.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

/\*\*

\* Servlet implementation class loginjava

\*/

public class loginjava extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public loginjava() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

PrintWriter pw = response.getWriter();

String s = request.getParameter("id");

String s2 = request.getParameter("pass");

if(s.equals(s2))

{

pw.println("\n LOGIN SUCCESSFULL!");

}

else

{

pw.println("\n ERROR! ");

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

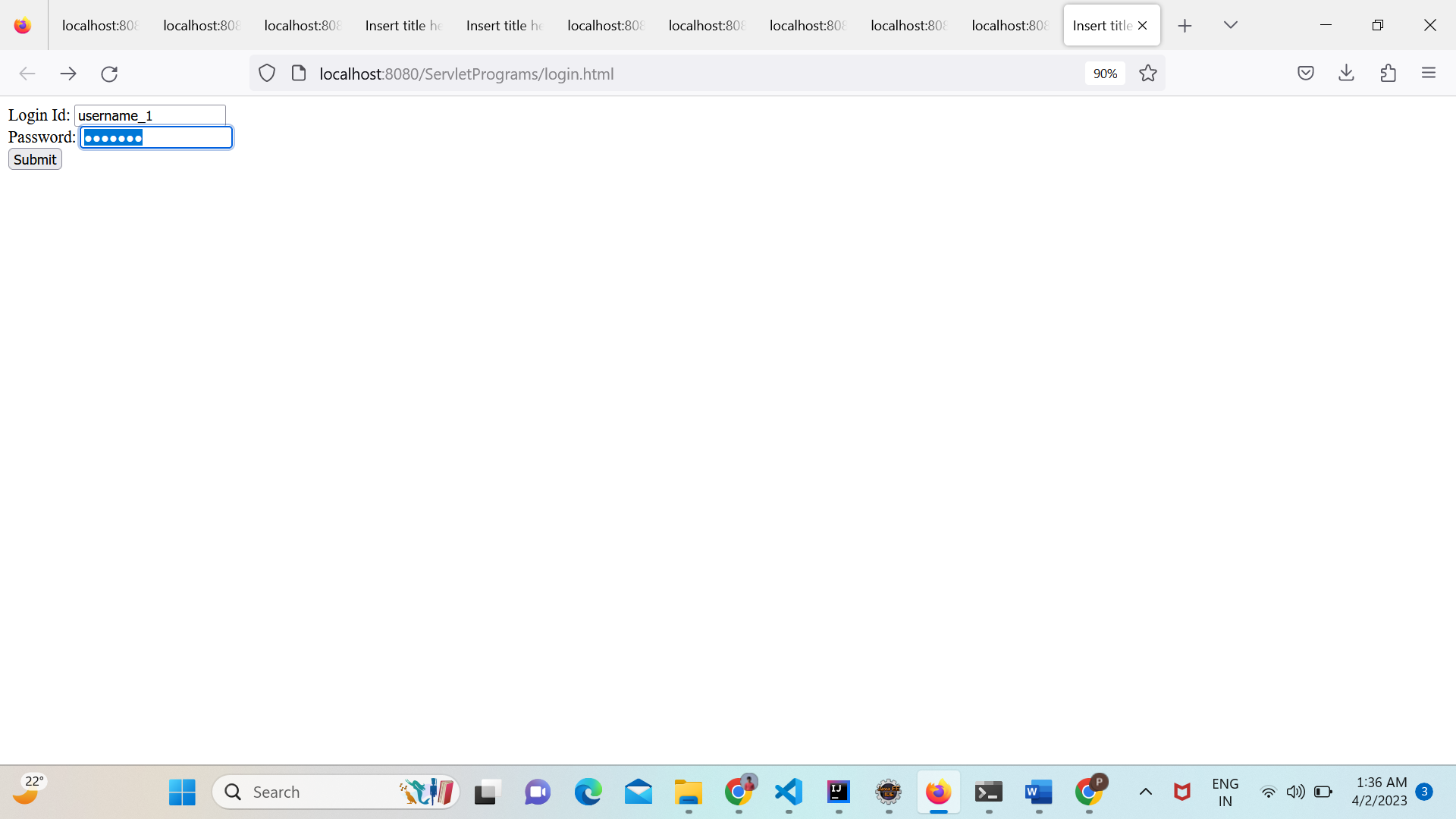
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

Output:  


Graphical user interface, application, Word

Description automatically generated