

Enterprise Programming Lab Practicals

Practical-1

Objective: Write a program to insert and retrieve the data from database using JDBC.

Solution:

```
// Example JDBC Code
import java.sql.*;

public class JDBCExample {
    public static void main(String[] args) {
        try {
            Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/testdb", "root",
"password");
            Statement stmt = conn.createStatement();
            stmt.executeUpdate("INSERT INTO users (name, age) VALUES ('John
Doe', 30)");

            ResultSet rs = stmt.executeQuery("SELECT * FROM users");
            while (rs.next()) {
                System.out.println(rs.getString("name") + " - " +
rs.getInt("age"));
            }
            conn.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

Practical-2

Objective: Write a program to demonstrate the use of Prepared Statement and Result Set interface.

Solution:

```
PreparedStatement pst = conn.prepareStatement("INSERT INTO users (name, age)
VALUES (?, ?)");
pst.setString(1, "Alice");
pst.setInt(2, 25);
pst.executeUpdate();

ResultSet rs = pst.executeQuery("SELECT * FROM users");
```

Practical-3

Objective: Installation of Eclipse and configuration of the Tomcat server.

Solution:

- Download Eclipse IDE for Enterprise Java.
 - Download Apache Tomcat.
 - Configure Tomcat in Eclipse via “Servers” tab → “New” → “Server” → Choose Tomcat version and path.
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Practical-4

Objective: A servlet program to print Hello World.

Solution:

```
public class HelloWorld extends HttpServlet {  
    protected void doGet(HttpServletRequest request, HttpServletResponse  
response) throws IOException {  
        response.setContentType("text/html");  
        PrintWriter out = response.getWriter();  
        out.println("<h1>Hello World</h1>");  
    }  
}
```

Practical-5

Objective: A servlet program to display request details and handle user form.

Solution:

```
protected void doPost(HttpServletRequest req, HttpServletResponse res) throws  
IOException {  
    String name = req.getParameter("username");  
    res.getWriter().println("Hello, " + name);  
}
```

Practical-6

Objective: A servlet program to create a cookie and display the cookies.

Solution:

```
Cookie cookie = new Cookie("user", "John");
```

```
res.addCookie(cookie);  
Cookie[] cookies = req.getCookies();
```

Practical-7

Objective: A servlet program to do session tracking.

Solution:

```
HttpSession session = req.getSession();  
session.setAttribute("user", "John");
```

Practical-8

Objective: Write a program to implement chat server using ServerSocket and Socket class.

Solution:

```
ServerSocket server = new ServerSocket(5000);  
Socket socket = server.accept();  
BufferedReader in = new BufferedReader(new  
InputStreamReader(socket.getInputStream()));
```

Practical-9

Objective: Write a Servlet program to send username and password using HTML forms and authenticate the user.

Solution:

```
String username = req.getParameter("user");  
String password = req.getParameter("pass");  
if(username.equals("admin") && password.equals("1234")) {  
    res.getWriter().println("Login successful");  
}
```

Practical-10

Objective: JSP program to display Hello World.

Solution:

```
<%@ page language="java" %>  
<html>  
<body>  
    <h1>Hello World from JSP</h1>  
</body>  
</html>
```

Practical-11

Objective: JSP program to demonstrate arithmetic operations.

Solution:

```
<%  
int a = 10, b = 5;  
int sum = a + b;  
out.println("Sum: " + sum);  
%>
```

Practical-12

Objective:

- JSP program to demonstrate jsp:forward action tag.
- Use request implicit object.
- Insert record into Oracle Database using JSP and JDBC.

Solution:

```
<jsp:forward page="next.jsp" />  
<% String name = request.getParameter("name"); %>  
<%  
Class.forName("oracle.jdbc.driver.OracleDriver");  
Connection conn =  
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "user", "pas  
s");  
PreparedStatement pst = conn.prepareStatement("INSERT INTO users VALUES (?,  
?)");  
pst.setString(1, "Alice");  
pst.setInt(2, 22);  
pst.executeUpdate();  
%>
```
