PROGRAM 1 : Currency Converter

Code:

index.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
        pageEncoding="ISO-8859-1"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
   <head>
      <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
      <title>Convertor</title>
   </head>
   <body>

      <% out.print("<h1>Converter</h1>");%>
      <form method='POST' action="ConvertNumbers">
         Amount : <input type=text value="0.0" name='val_1'><br>
         <input type="radio" id="USD" name="op" value="USD">
         <label for="USD">USD</label><br>

         <input type="radio" id="EUR" name="op" value="EUR">
         <label for="EUR">EUR</label><br>

         <input type="radio" id="YEN" name="op" value="YEN">
         <label for="YEN">YEN</label><br>

         <input type='submit' value="Convert">
      </form>
   </body>
</html>
```

Convert.java

```
package com.mylogic;

import javax.ejb.LocalBean;
import javax.ejb.Stateless;


@Stateless
@LocalBean
public class Convert implements ConvertRemote {

    public Convert() {
    }

    public double toUSD(double a){
            return (a / 73.37);
    }
    public double toYEN(double a){
            return (a / 0.66);
    }
   public double toEUR(double a){
            return (a / 86.28);
    }
}
```

ConvertNumbers.java

```
package com.mylogic;

import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.io.*;

@WebServlet("/ConvertNumbers")
public class ConvertNumbers extends HttpServlet {

    private static final long serialVersionUID = 1L;
    public ConvertNumbers() {
```

```
        super();
    }

    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        double a = Double.parseDouble(request.getParameter("val_1"));
        String op = request.getParameter("op");
        double result = 0.0;

        Convert obj = new Convert();

        if ("USD".equals(op)) {
            result = obj.toUSD(a);
        } else if ("EUR".equals(op)) {
            result = obj.toEUR(a);
        } else{
            result = obj.toYEN(a);
        }

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.print("<h1>Converted</h1>");
        out.print("The result is : <b>" + result + "</b>");
    }

}
```

ConvertRemote.java

```
package com.mylogic;
import javax.ejb.Remote;

@Remote
public interface ConvertRemote {

    public double toUSD(double a);

    public double toYEN(double a);

    public double toEUR(double a);

}
```

Output:


Converter
Amount : 46.36
USD
EUR
YEN
Convert
Converted
The result is : 0.5373203523412147

PROGRAM 2 : Room Reservation

Code:

index.html

```
<html>
<body>
   <meta http-equiv="Refresh" content="0; url='/onlineShop/purchase'" />
</body>
</html>
```

purchase.java

```
package com.mycompany.rentroom;

/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;

/**
 *
 * @author shankar
 */
public class purchase extends HttpServlet {
   private Connection conn;

   public Connection listItems(HttpServletRequest request, HttpServletResponse response,
Connection conn)
           throws ServletException, IOException {

       PrintWriter out = response.getWriter();
```

```
        try {
            Statement stmt = conn.createStatement();
            String sql = "SELECT * FROM room_det";
            ResultSet rs = stmt.executeQuery(sql);
            int ctr = 0;
            out.println("<form action='/onlineShop/checkout' method='get'>");
            out.println("Checkin  date : <input type=\"date\" id=\"checkin\" name=\"checkin\">");
            out.println("Checkout date : <input type=\"date\" id=\"checkout\" name=\"checkout\">");
            out.println("<table border> <tr><th>Num Beds</th> <th>Room Name</th> <th>Room
Quantity</th> <th>Room Cost</th> <th>Buying</th></tr>");
            while (rs.next()) {
                String bed = rs.getString("room_bed");
                String name = rs.getString("room_name");
                String num = rs.getString("room_num");
                String cost = rs.getString("room_cost");

                String hide = cost+","+ name;

                out.println("<tr> <td>" + bed + "</td><td>" + name + "</td><td>" + num + "</td><td>"
+ cost);
                out.println(" Rs</td><td><input type='submit' name = 'hide' value= '" +hide
+"'></td></tr>");
                ctr++;
            }
            out.println("</table>");
            out.println("<input type='hidden' name = 'counter' value = '"+ctr+"'</input></form>");
        } catch (Exception e) {
            e.printStackTrace();
            System.out.println("Error in select all");
        }
        return conn;
    }

    public Connection getConnection(HttpServletResponse response) throws IOException {
        PrintWriter out = response.getWriter();

        try {
            String url = "jdbc:mysql://localhost/temp";
            String username = "root";
            String password = "";
            Class.forName("com.mysql.jdbc.Driver");

            conn = DriverManager.getConnection(url, username, password);
```

```
        } catch (Exception e) {
            e.printStackTrace();
            out.println("Error occurred while connecting to database");
        }
        return conn;
    }

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");

        PrintWriter out = response.getWriter();
        try {
            getConnection(response);
            listItems(request, response, conn);
        } finally {
            out.close();
        }
    }

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);

    }

}
```

checkout.java

```
package com.mycompany.rentroom;

import javax.ejb.Stateful;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;
```

```
import java.util.Vector;
import java.text.DateFormat;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.concurrent.TimeUnit;
import java.util.logging.Level;
import java.util.logging.Logger;
/**
 *
 * @author shankar
 */
public class checkout extends HttpServlet {

    Bill obj = new Bill();

    public void listItems(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException, ParseException {
        PrintWriter out = response.getWriter();
        String[] temp = request.getParameter("hide").split(",");
        String inDate = request.getParameter("checkin");
        String outDate = request.getParameter("checkout");

        String price = temp[0];
        String name = temp[1];
        Vector<Room> rooms = obj.addItem(name, price, inDate, outDate);

        Date date1=new SimpleDateFormat("yyyy-MM-dd").parse(inDate);
        Date date2=new SimpleDateFormat("yyyy-MM-dd").parse(outDate);
        long time_difference = date2.getTime() - date1.getTime();
        long days_difference = TimeUnit.MILLISECONDS.toDays(time_difference) % 365;

        int bill = 0;
        out.println("<table border = 1>"
                + "<tr> <td>Name</td>
<td>Quantity</td><td>Cost</td><td>In</td><td>Out</td></tr>");
        for (Room room : rooms) {
            int total = room.getQuant() * room.getCost();
            out.println("<tr><td>" + room.getName() + "</td><td>" + room.getQuant() + "</td><td>"
                    + total +
"Rs.</td><td>"+room.getEntryDate()+"</td><td>"+room.getExitDate()+"</td></tr>");
            bill += total;
        }
        out.println("</table>");
```

```
        out.println("Number of days = " + days_difference + "<br>");
        out.println("Bill = " + bill*days_difference + " <br> <a href = 'payment'> <input type =
'button' value = 'Click to pay'> </a>");
    }

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException, ParseException {
        response.setContentType("text/html;charset=UTF-8");

        PrintWriter out = response.getWriter();
        try {
            listItems(request, response);
        } finally {
            out.close();
        }
    }

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        try {
            processRequest(request, response);
        } catch (ParseException ex) {
            Logger.getLogger(checkout.class.getName()).log(Level.SEVERE, null, ex);
        }

    }
}
```

payment.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 *
 * @author shankar
 */
public class payment extends HttpServlet {
```

```
    public void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException {
        res.setContentType("text/html");
        PrintWriter pw = res.getWriter();

        pw.println("Payment successful");

    }
```

Bill.java

```
package com.mycompany.rentroom;

import javax.ejb.Stateful;
import javax.servlet.http.HttpServlet;
import java.util.Vector;

/**
 *
 * @author shankar
 */
@Stateful
public class Bill extends HttpServlet implements BillRemote  {

    static Vector<Room> rooms = new Vector<Room>();

    @Override
    public Vector<Room> addItem(String name, String price, String inDate, String outDate) {

        for(Room room : rooms){
            if(room.getName().equals(name))
            {
                room.setQuant( room.getQuant()+1 );
                return rooms;
            }
        }

        rooms.add(new Room(name,Integer.parseInt(price),1, inDate, outDate));
        return rooms;
    }

}
```

BillRemote.java

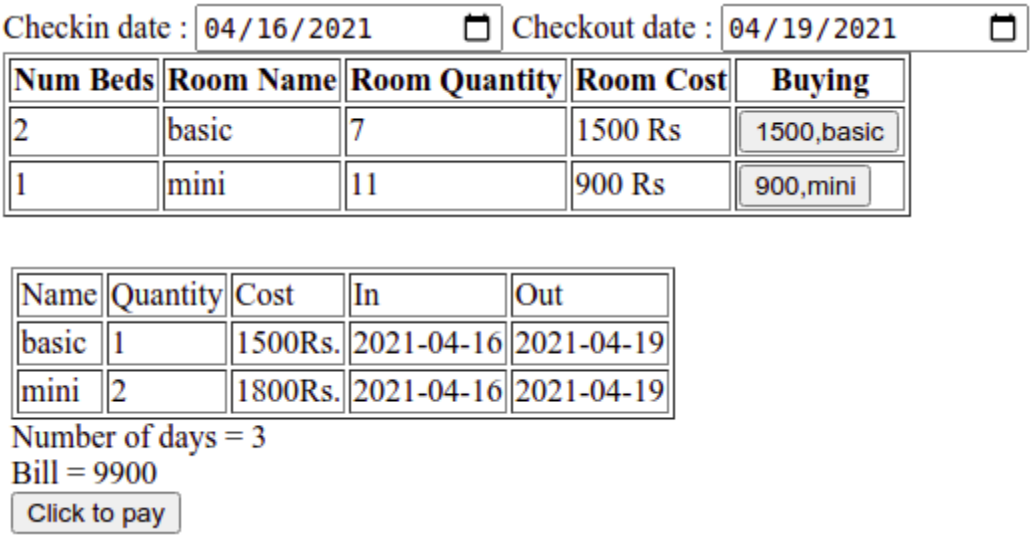
```
package com.mycompany.rentroom;

import java.util.Vector;
import javax.ejb.Remote;

/**
 *
 * @author shankar
 */
@Remote
public interface BillRemote {

    public Vector<Room> addItem(String name, String price, String inDate, String outDate);
}
```

Room.java

```
package com.mycompany.rentroom;


class Room {
    String name;
    int cost;
    int quant;
    String entryDate;
    String exitDate;

    public Room(){

    }

    public Room(String name, int cost, int quant, String entryDate, String exitDate){
        this.name = name;
        this.cost = cost;
        this.quant = quant;
        this.entryDate = entryDate;
        this.exitDate = exitDate;
    }
```

```
    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public int getCost() {
        return cost;
    }

    public void setCost(int cost) {
        this.cost = cost;
    }

    public int getQuant() {
        return quant;
    }

    public void setQuant(int quant) {
        this.quant = quant;
    }

    public String getEntryDate() {
        return entryDate;
    }

    public void setEntryDate(String entryDate) {
        this.entryDate = entryDate;
    }

    public String getExitDate() {
        return exitDate;
    }

    public void setExitDate(String exitDate) {
        this.exitDate = exitDate;
    }

}
```

Output:



PROGRAM 3 : Shopping Cart

Code:

index.html

```
<html>
<body>
    <meta http-equiv="Refresh" content="0; url='/onlineShop/homepage'" />
</body>
</html>
```

BIll.java

```
package com.mycompany.onlineshop;

import javax.ejb.Stateful;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
```

```
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;
import java.util.Vector;


public class Bill extends HttpServlet implements BillRemote  {

    static Vector<Item> cart = new Vector<Item>();

    @Override
    public Vector<Item> addItem(String name, String price) {

        for(Item item : cart){
            if(item.getName().equals(name))
            {
                item.setQuant( item.getQuant()+1 );
                return cart;
            }
        }

        cart.add(new Item(name,Integer.parseInt(price),1));
        return cart;
    }
}
```

BillRemote.java

```
package com.mycompany.onlineshop;

import java.util.Vector;
import javax.ejb.Remote;

/**
 *
 * @author shankar
 */
@Remote
public interface BillRemote {

    public Vector<Item> addItem(String name, String price);
}
```

Item.java

```
package com.mycompany.onlineshop;


class Item {
    String name;
    int cost;
    int quant;

    public Item(){

    }

    public Item(String name, int cost, int quant){
        this.name = name;
        this.cost = cost;
        this.quant = quant;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public int getCost() {
        return cost;
    }

    public void setCost(int cost) {
        this.cost = cost;
    }

    public int getQuant() {
        return quant;
    }

    public void setQuant(int quant) {
        this.quant = quant;
    }

}
```

checkout.java

```
package com.mycompany.onlineshop;

import javax.ejb.Stateful;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;
import java.util.Vector;


public class checkout extends HttpServlet {

    Bill obj = new Bill();

    public void listItems(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        PrintWriter out = response.getWriter();
        String[] temp = request.getParameter("hide").split(",");
        String price = temp[0];
        String name = temp[1];
        Vector<Item> cart = obj.addItem(name, price);

        int bill = 0;
        out.println("<table border = 1>"
                + "<tr> <td>Name</td> <td>Quantity</td><td>Cost</td></tr>");
        for (Item item : cart) {
            int total = item.getQuant() * item.getCost();
            out.println("<tr><td>" + item.getName() + "</td><td>" + item.getQuant() + "</td><td>"
                    + total + "Rs.</td></tr>");
            bill += total;
        }
        out.println("</table>");
        out.println("Bill = " + bill + " <br> <a href = 'payment'> <input type = 'button' value = 'Click to
pay'> </a>");
    }

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

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

        PrintWriter out = response.getWriter();
        try {
            listItems(request, response);
        } finally {
            out.close();
        }
    }

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);

    }
}
```

homePage.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;


public class homePage extends HttpServlet {
    private Connection conn;

    public Connection listItems(HttpServletRequest request, HttpServletResponse response,
Connection conn)
            throws ServletException, IOException {

        PrintWriter out = response.getWriter();

        try {
            Statement stmt = conn.createStatement();
            String sql = "SELECT * FROM store";
            ResultSet rs = stmt.executeQuery(sql);
```

```
            out.println("<table border> <tr><th>Item Code</th> <th>Item Name</th> <th>Item
Quantity</th> <th>Item Cost</th> </tr>");
            while (rs.next()) {
                String code = rs.getString("item_code");
                String name = rs.getString("item_name");
                String num = rs.getString("item_num");
                String cost = rs.getString("item_cost");

                out.println("<tr> <td>" + code + "</td><td>" + name + "</td><td>" + num + "</td><td>"
+ cost + "Rs</td></tr>");
            }
            out.println("</table>");
        } catch (Exception e) {
            e.printStackTrace();
            System.out.println("Error in select all");
        }
        return conn;
    }

    public Connection getConnection(HttpServletResponse response) throws IOException {
        PrintWriter out = response.getWriter();

        try {
            String url = "jdbc:mysql://localhost/temp";
            String username = "root";
            String password = "";
            Class.forName("com.mysql.jdbc.Driver");

            conn = DriverManager.getConnection(url, username, password);
        } catch (Exception e) {
            e.printStackTrace();
            out.println("Error occurred while connecting to database");
        }
        return conn;
    }

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");

        PrintWriter out = response.getWriter();
        try {
            getConnection(response);
            listItems(request, response, conn);
```

```
                out.println("<a href = \"purchase\"> <input type = 'button' value = 'Click to
proceed'> </a>");

        } finally {
            out.close();
        }
    }

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);

    }

}
```

payment.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;


public class payment extends HttpServlet {

    public void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException {
        res.setContentType("text/html");
        PrintWriter pw = res.getWriter();

        pw.println("Payment successful");

    }
}
```

purchase.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;

public class purchase extends HttpServlet {
   private Connection conn;

   public Connection listItems(HttpServletRequest request, HttpServletResponse response,
Connection conn)
         throws ServletException, IOException {

      PrintWriter out = response.getWriter();

      try {
         Statement stmt = conn.createStatement();
         String sql = "SELECT * FROM store";
         ResultSet rs = stmt.executeQuery(sql);
         int ctr = 0;
         out.println("<form action='/onlineShop/checkout' method='get'>");
         out.println("<table border> <tr><th>Item Code</th> <th>Item Name</th> <th>Item
Quantity</th> <th>Item Cost</th> <th>Buying</th></tr>");
         while (rs.next()) {
            String code = rs.getString("item_code");
            String name = rs.getString("item_name");
            String num = rs.getString("item_num");
            String cost = rs.getString("item_cost");

            String hide = cost+","+ name;

            out.println("<tr> <td>" + code + "</td><td>" + name + "</td><td>" + num + "</td><td>"
+ cost);
            out.println(" Rs</td><td><input type='submit' name = 'hide' value= '" +hide
+"'></td></tr>");
            ctr++;
         }
         out.println("</table>");
         out.println("<input type='hidden' name = 'counter' value = '"+ctr+"'</input></form>");
      } catch (Exception e) {
         e.printStackTrace();
```

```
            System.out.println("Error in select all");
        }
        return conn;
    }

    public Connection getConnection(HttpServletResponse response) throws IOException {
        PrintWriter out = response.getWriter();

        try {
            String url = "jdbc:mysql://localhost/temp";
            String username = "root";
            String password = "";
            Class.forName("com.mysql.jdbc.Driver");

            conn = DriverManager.getConnection(url, username, password);
        } catch (Exception e) {
            e.printStackTrace();
            out.println("Error occurred while connecting to database");
        }
        return conn;
    }

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");

        PrintWriter out = response.getWriter();
        try {
            getConnection(response);
            listItems(request, response, conn);
        } finally {
            out.close();
        }
    }

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);

    }

}
```

Output:

Item Code	Item Name	Item Quantity	Item Cost
1	bread	7	45Rs
2	pen	5	10Rs

Click to proceed

Item Code	Item Name	Item Quantity	Item Cost	Buying
1	bread	7	45 Rs	45,bread
2	pen	5	10 Rs	10,pen

Name	Quantity	Cost
bread	1	45Rs.
pen	2	20Rs.

Bill = 65

Click to pay

PROGRAM 4 : Visitor Statistics

Code:

index.xhtml

```
<!DOCTYPE html>
<html>
   <head>
      <title>Start Page</title>
   <meta http-equiv="Refresh" content="0; url='homePage'" />
   </head>
</html>
```

freq.java

```
package com.mycompany.visitperday;

import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.ejb.Stateful;
import javax.servlet.http.HttpServletResponse;

@Stateful
public class freq implements freqLocal {

    boolean visited = false;

    @Override
    public String getFreq(String day) {
        Connection conn = getConnection();
        String res = "";
        try {
            Statement stmt = conn.createStatement();
            String sql = "SELECT * FROM VISITOR_FREQ";
            ResultSet rs = stmt.executeQuery(sql);

            res += "<table border> <tr><th>Day</th> <th>Visits</th></tr>";
            while (rs.next()) {
                String days = rs.getString("Day");
                int visits = rs.getInt("Visits");

                res += "<tr> <td>" + days + "</td><td>";

                if (days.equals(day) && visited == false) {
                    visits++;
                    addFreq(day, visits, conn);
                    visited = true;
                }

                res += visits + "</td>";

            }
```

```
            res += "</table>";
        } catch (Exception e) {
            e.printStackTrace();
            System.out.println("Error in select all");
        }

        return res;
    }

    @Override
    public void addFreq(String day, int visits,Connection conn) {
        Statement stmt = null;
        try {
            stmt = (Statement) conn.createStatement();
        } catch (SQLException ex) {
            Logger.getLogger(freq.class.getName()).log(Level.SEVERE, null, ex);
        }

        String query = "UPDATE VISITOR_FREQ SET Visits="'+visits+"' WHERE Day = '" + day +"'
";

        try {
            stmt.executeUpdate(query);
        } catch (SQLException ex) {
            Logger.getLogger(freq.class.getName()).log(Level.SEVERE, null, ex);
        }

    }

    public Connection getConnection() {
        Connection conn = null;
        try {
            String url = "jdbc:mysql://localhost/temp";
            String username = "root";
            String password = "";
            Class.forName("com.mysql.jdbc.Driver");

            conn = DriverManager.getConnection(url, username, password);
        } catch (Exception e) {
            e.printStackTrace();
        }
        return conn;
    }
}
```

freqLocal.java

```
package com.mycompany.visitperday;

import java.sql.Connection;
import javax.ejb.Remote;
import javax.servlet.http.HttpServletResponse;


@Remote
public interface freqLocal {
    public String getFreq(String day);
    public void addFreq(String day, int visits, Connection conn );
    public Connection getConnection();
}
```

homePage.java

```
package com.mycompany.visitperday;

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.util.Calendar;

/**
 *
 * @author shankar
 */
public class homePage extends HttpServlet {

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        try ( PrintWriter out = response.getWriter()) {

            String[] days = {"SUNDAY", "MONDAY", "TUESDAY", "WEDNESDAY", "THURSDAY",
"FRIDAY", "SATURDAY"};
```

```
            Calendar calendar = Calendar.getInstance();
            int dayNum = calendar.get(Calendar.DAY_OF_WEEK);
            String today = days[dayNum - 1];

            out.println("Thanks for visiting the page");
            out.println("<br>Hits so far are:");

            freq obj = new freq();
            out.println(obj.getFreq(today));

        }
    }

    // <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the
left to edit the code.">
    /**
     * Handles the HTTP <code>GET</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }


    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }

    /**

    @Override
    public String getServletInfo() {
        return "Short description";
    }// </editor-fold>

}
```

Output:

Thanks for visiting the page
Hits so far are:

Day	Visits
SUNDAY	0
MONDAY	0
TUESDAY	0
WEDNESDAY	0
THURSDAY	0
FRIDAY	3
SATURDAY	0

PROGRAM 5 : Marks Entry

Code:

index.html

```
<html>
   <head>
      <title>Mark to Grade</title>

   </head>
   <body>
   <center>
      <h1>Student marks</h1>
      <form action="addEntry" method="POST">
         Enter Name   : <input type="text" name="name"> <br><br>
```

```
            Enter Marks in Subject 1   : <input type="text" name="sub1"> <br><br>
            Enter Marks in Subject 2   : <input type="text"  name="sub2"><br><br>
            Enter Marks in Subject 3   : <input type="text"  name="sub3"><br><br>
            Enter Marks in Subject 4   : <input type="text"  name="sub4"><br><br>
            <input type="submit">
        </form>
    </center>
</body>
</html>
```

markEntry.java

```
package com.mycompany.marksejb;

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.util.logging.Level;
import java.util.logging.Logger;
import javax.ejb.Stateless;
import javax.servlet.http.HttpServletResponse;

/**
 *
 * @author shankar
 */
@Stateless
public class markEntry implements markEntryRemote{
    Connection conn;

    @Override
    public void enterMarks(String name, int[] marks) {
        conn = getConnection();

        String st = "INSERT INTO marks VALUES ('" + name + "','"
                            + marks[0] + "','" + marks[1] + "','" + marks[2]
                            + "','" + marks[3] +"')";


        try {
            String url = "jdbc:mysql://localhost:3306/temp";
```

```
        String username = "root";
        String password = "";
        PreparedStatement pstmt = null;
        try {

            Class.forName("com.mysql.jdbc.Driver");

            conn = DriverManager.getConnection(url, username, password);

        } catch (SQLException ex) {
            System.out.println(ex.getMessage());
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(markEntry.class.getName()).log(Level.SEVERE, null, ex);
        }

        try {
            pstmt = conn
                    .prepareStatement(st);
        } catch (SQLException ex) {
            Logger.getLogger(markEntry.class.getName()).log(Level.SEVERE, null, ex);
        }

        try {
            int rs = pstmt.executeUpdate();
        } catch (SQLException ex) {
            Logger.getLogger(markEntry.class.getName()).log(Level.SEVERE, null, ex);
        }

        pstmt.close();
        conn.close();
    } catch (SQLException ex) {
        Logger.getLogger(markEntry.class.getName()).log(Level.SEVERE, null, ex);
    }

}

public Connection getConnection() {

    try {
        String url = "jdbc:mysql://localhost/temp";
        String username = "root";
        String password = "";
        Class.forName("com.mysql.jdbc.Driver");
```

```
            conn = DriverManager.getConnection(url, username, password);
        } catch (Exception e) {
            e.printStackTrace();
        }
        return conn;
    }
}
```

markEntryRemote.java

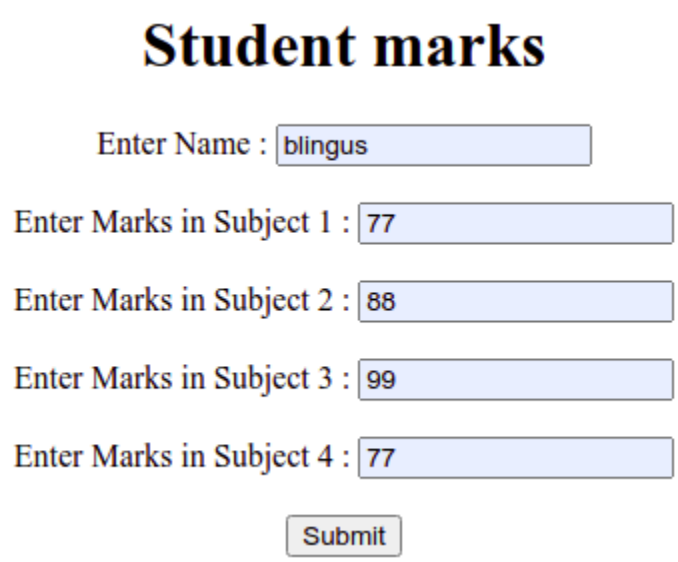
```
package com.mycompany.marksejb;

import java.sql.Connection;
import java.sql.SQLException;
import javax.ejb.Remote;

/**
 *
 * @author shankar
 */
@Remote
public interface markEntryRemote {
    public void enterMarks(String name, int[] marks);
}
```

addEntry.java

```
package com.mycompany.marksejb;

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
```

```
 *
 * @author shankar
 */
public class addEntry extends HttpServlet {

    private Connection conn;

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException, SQLException {
        response.setContentType("text/html;charset=UTF-8");
        try ( PrintWriter out = response.getWriter()) {

            String name = request.getParameter("name");
            int marks[] = new int[4];

            for (int i = 1; i <= 4; i++) {
                marks[i - 1] = Integer.parseInt(request.getParameter("sub" + i));
            }
            markEntry obj = new markEntry();
            obj.enterMarks(name, marks);
            out.println("Insertion successful");
            out.println("<meta http-equiv=\"Refresh\" content=\"2.5;
url='/marksEJB-1.0-SNAPSHOT/'\" />");
            conn.close();
        }
    }



    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        try {
            processRequest(request, response);
        } catch (SQLException ex) {
            Logger.getLogger(addEntry.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
}
```

Output:



PROGRAM 6 : Hit Count

Code:

index.xhtml

```
<html lang="en"
      xmlns="http://www.w3.org/1999/xhtml"
      xmlns:ui="http://xmlns.jcp.org/jsf/facelets"
      xmlns:h="http://xmlns.jcp.org/jsf/html">
          This page has been accessed #{count.hitCount} time(s).
</html>
```

Count.java

```
package com.mycompany.counter;

import java.io.Serializable;
import javax.ejb.EJB;
import javax.enterprise.context.ConversationScoped;
import javax.inject.Named;
```

```
@Named
@ConversationScoped
public class Count implements Serializable {
    @EJB
    private CounterBean counterBean;

    private int hitCount;

    public Count() {
        this.hitCount = 0;
    }

    public int getHitCount() {
        hitCount = counterBean.getHits();
        return hitCount;
    }

    public void setHitCount(int newHits) {
        this.hitCount = newHits;
    }
}
```

CounterBean.java

```
package com.mycompany.counter;

import javax.ejb.Singleton;

/**
 * CounterBean is a simple singleton session bean that records the number
 * of hits to a web page.
 */
@Singleton
public class CounterBean {
    private int hits = 1;

    // Increment and return the number of hits
    public int getHits() {
        return hits++;
    }
}
```

Output:

This page has been accessed 10 time(s).