## Practical 11 (Mini-project)

**home.jsp**
```
<%@ page language="java" contentType="text/html; charset=UTF-8"
        pageEncoding="UTF-8"%>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>
<%@page isELIgnored="false"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
<%@include file="../component/all_css.jsp"%>
</head>
<body>
        <c:if test="${empty loginUser}">
                <c:redirect url="../login.jsp"></c:redirect>
        </c:if>
        <%@include file="../component/navbar.jsp"%>

        <div id="carouselExampleControls" class="carousel slide"
                data-bs-ride="carousel">
                <div class="carousel-inner">
                        <div class="carousel-item active">
                                <img src="../img/exp1.jpg" class="d-block w-100" alt="..."
                                        height="670px">
                        </div>
                        <div class="carousel-item">
                                <img src="../img/exp2.jpg" class="d-block w-100" alt="..."
                                        height="670px">
                        </div>
                        <div class="carousel-item">
                                <img src="../img/exp4.jpg" class="d-block w-100" alt="..."
                                        height="670px">
                        </div>
                </div>
                <button class="carousel-control-prev" type="button"
                        data-bs-target="#carouselExampleControls" data-bs-slide="prev">
                        <span class="carousel-control-prev-icon" aria-hidden="true"></span> <span
                                class="visually-hidden">Previous</span>
                </button>
                <button class="carousel-control-next" type="button"
                        data-bs-target="#carouselExampleControls" data-bs-slide="next">
                        <span class="carousel-control-next-icon" aria-hidden="true"></span> <span
                                class="visually-hidden">Next</span>
                </button>
        </div>
</body>
</html>
```

**add_expense.jsp :**
```
<%@ page language="java" contentType="text/html; charset=UTF-8"
        pageEncoding="UTF-8"%>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>
<%@page isELIgnored="false"%>
<!DOCTYPE html>
<html>
```

```jsp
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
<%@include file="../component/all_css.jsp"%>
<style type="text/css">
.card-sh {
        box-shadow: 0 0 25px 0 rgba(0, 0, 0, 0.3);
}
</style>
</head>
<body class="bg-light">
        <c:if test="${empty loginUser}">
                <c:redirect url="../login.jsp"></c:redirect>
        </c:if>

        <%@include file="../component/navbar.jsp"%>

        <div class="container">
                <div class="row">
                        <div class="col-md-4 offset-md-4 mt-5">
                                <div class="card card-sh">
                                        <div class="card-header text-center">
                                                <p class="fs-3">Add Expense</p>
                                                <c:if test="${not empty msg}">
                                                        <p class="text-center text-success fs-4">${msg }</p>
                                                        <c:remove var="msg" />
                                                </c:if>
                                        </div>
                                        <div class="card-body">
                                                <form action="../saveExpense" method="post">
                                                        <div class="mb-3">
                                                                <label>Title</label> <input type="text" name="title"
                                                                        class="form-control">
                                                        </div>

                                                        <div class="mb-3">
                                                                <label>Date</label> <input type="date"
name="date"

                                                                        class="form-control">
                                                        </div>

                                                        <div class="mb-3">
                                                                <label>Time</label> <input type="time"
name="time"

                                                                        class="form-control">
                                                        </div>

                                                        <div class="mb-3">
                                                                <label>Description</label> <input type="text"
name="description"

                                                                        class="form-control">
                                                        </div>

                                                        <div class="mb-3">
                                                                <label>Price</label> <input type="text"
name="price"

                                                                        class="form-control">
```

```html
                                    </div>

                                    <button class="btn btn-primary col-md-12">Add</button>
                                </form>
                            </div>
                        </div>
                    </div>
                </div>
</body>
</html>
```

**view_expense.jsp :**
```jsp
<%@page import="com.entity.Expense"%>
<%@page import="java.util.List"%>
<%@page import="com.entity.User"%>
<%@page import="com.db.HibernateUtil"%>
<%@page import="com.dao.ExpenseDao"%>
<%@ page language="java" contentType="text/html; charset=UTF-8"
        pageEncoding="UTF-8"%>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>
<%@page isELIgnored="false"%>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>All Expenses</title>
<%@include file="../component/all_css.jsp"%>
</head>
<body>
        <c:if test="${empty loginUser}">
                <c:redirect url="../login.jsp"></c:redirect>
        </c:if>
        <%@include file="../component/navbar.jsp"%>
        <div class="container">
                <div class="row">
                        <div class="col-md-12">
                                <div class="card mt-3">
                                        <div class="card-header text-center">
                                                <p class="fs-3">All Expenses</p>

                                                <c:if test="${not empty msg}">
                                                        <p class="text-center text-success fs-4">${msg }</p>
                                                        <c:remove var="msg" />
                                                </c:if>
                                        </div>
                                        <div class="card-body">
                                                <div class="expense-container">
                                                        <%
                User user = (User) session.getAttribute("loginUser");
                ExpenseDao dao = new ExpenseDao(HibernateUtil.getSessionFactory());
                List<Expense> list = dao.getAllExpenseByUser(user);
                for (Expense ex : list) {
        %>
                                                        <div class="expense-card">
                                                                <div class="card-title"><%= ex.getTitle() %></div>
```

```html
            <div class="card-description">
                <p>
                    <strong>Description:</strong>
                    <%= ex.getDescription() %></p>
                <p>
                    <strong>Date:</strong>
                    <%= ex.getDate() %></p>
                <p>
                    <strong>Time:</strong>
                    <%= ex.getTime() %></p>
                <p>
                    <strong>Price:</strong>
                    <%= ex.getPrice() %></p>
            </div>
            <div class="card-footer">
                <a href="edit_expense.jsp?id=<%=

ex.getId() %>"

primary">Edit</a> <a

ex.getId() %>"

danger">Delete</a>
                    class="btn btn-sm btn-

                    href="../deleteExpense?id=<%=

                    class="btn btn-sm btn-

            </div>
        </div>
        <% } %>
    </div>
                </div>
            </div>
        </div>
    </div>
</div>
</body>
</html>
```

**SaveServlet.java :**
```java
package com.servlet;

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 javax.servlet.http.HttpSession;

import com.dao.ExpenseDao;
import com.db.HibernateUtil;
import com.entity.Expense;
import com.entity.User;

@WebServlet("/saveExpense")
public class SaveServlet extends HttpServlet{

        /**
         *
```

```java
 */
private static final long serialVersionUID = 1L;

@Override
protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException,
IOException {

        String title = req.getParameter("title");
        String date = req.getParameter("date");
        String time = req.getParameter("time");
        String description = req.getParameter("description");
        String price = req.getParameter("price");

        HttpSession session = req.getSession();
        User user = (User)session.getAttribute("loginUser");

        Expense ex = new Expense(title,date,time,description,price,user);

        ExpenseDao dao = new ExpenseDao(HibernateUtil.getSessionFactory());
        boolean f = dao.saveExpense(ex);

        if (f) {
                session.setAttribute("msg", "Expense added Successfully");
                resp.sendRedirect("user/add_expense.jsp");
        } else {
                session.setAttribute("msg", "Something wrong on server");

                resp.sendRedirect("user/add_expense.jsp");
        }
    }
}
```

**ExpenseDao.java :**

```java
package com.dao;

import java.util.ArrayList;
import java.util.List;
import org.hibernate.Query;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;
import com.entity.Expense;
import com.entity.User;
public class ExpenseDao {

        private SessionFactory factory = null;
        private Session session = null;
        private Transaction tx = null;

        public ExpenseDao(SessionFactory factory) {
                super();
                this.factory = factory;
        }

        public boolean saveExpense(Expense ex) {
                boolean f = false;
```

```java
        try {
                session = factory.openSession();
                tx = session.beginTransaction();
                session.save(ex);
                tx.commit();
                f = true;
        } catch (Exception e) {
                if(tx != null) {
                        f = false;
                        e.printStackTrace();
                }
        }
        return f;
}

public List<Expense> getAllExpenseByUser(User user){
        List<Expense> list = new ArrayList<Expense>();
        try {
                session = factory.openSession();
                Query q = session.createQuery("from Expense where user=:us");
                q.setParameter("us", user);
                list = q.list();
        } catch (Exception e) {
                e.printStackTrace();
        }
        return list;
}

public Expense getExpenseById(int id) {
        Expense ex = null;
        try {
                session = factory.openSession();
                Query q = session.createQuery("from Expense where id=:id");

                q.setParameter("id", id);
                ex = (Expense) q.uniqueResult();
        } catch (Exception e) {
                e.printStackTrace();
        }
        return ex;
}

public boolean updateExpense(Expense ex) {
        boolean f = false;

        try {
                session = factory.openSession();
                tx = session.beginTransaction();
                session.saveOrUpdate(ex);
                tx.commit();
                f = true;
        } catch (Exception e) {
                if(tx != null) {
                        f = false;
                        e.printStackTrace();
                }
        }
```

```java
                return f;
        }

        public boolean deleteExpense(int id) {
                boolean f = false;
                try {
                        session = factory.openSession();
                        tx = session.beginTransaction();

                        Expense ex = session.get(Expense.class, id);

                        session.delete(ex);

                        tx.commit();
                        f = true;


                } catch (Exception e) {
                        e.printStackTrace();
                }
                return f;
        }
}
```

**HibernateUtil.java**

```java
package com.db;

import java.util.Properties;

import org.hibernate.SessionFactory;
import org.hibernate.boot.registry.StandardServiceRegistryBuilder;
import org.hibernate.cfg.Configuration;
import org.hibernate.cfg.Environment;
import org.hibernate.service.ServiceRegistry;

import com.entity.Expense;
import com.entity.User;

public class HibernateUtil {

        private static SessionFactory sessionFactory;

        public static SessionFactory getSessionFactory() {
                if (sessionFactory == null) {
                        Configuration configuration = new Configuration();

                        Properties properties = new Properties();
                        properties.put(Environment.DRIVER, "com.mysql.cj.jdbc.Driver");
                        properties.put(Environment.URL, "jdbc:mysql://localhost:3306/expense_tracker_db");
                        properties.put(Environment.USER, "root");
                        properties.put(Environment.PASS, "pratik");
                        properties.put(Environment.DIALECT, "org.hibernate.dialect.MySQL8Dialect");
                        properties.put(Environment.HBM2DDL_AUTO, "update");
                        properties.put(Environment.SHOW_SQL, true);

                        configuration.setProperties(properties);
                        configuration.addAnnotatedClass(User.class);
                        configuration.addAnnotatedClass(Expense.class);
```

```
                ServiceRegistry serviceRegistery = new StandardServiceRegistryBuilder()
                            .applySettings(configuration.getProperties()).build();

                sessionFactory = configuration.buildSessionFactory(serviceRegistery);

            }
            return sessionFactory;
        }
}
```
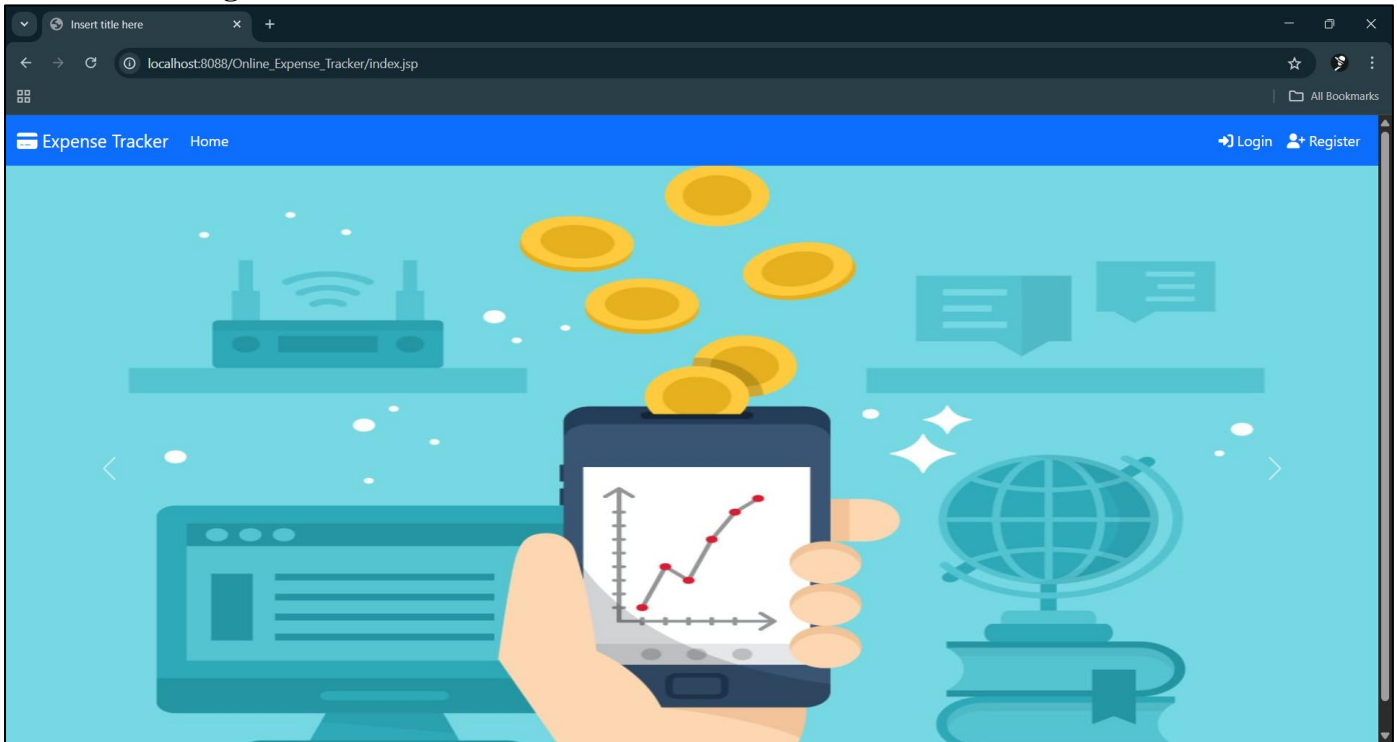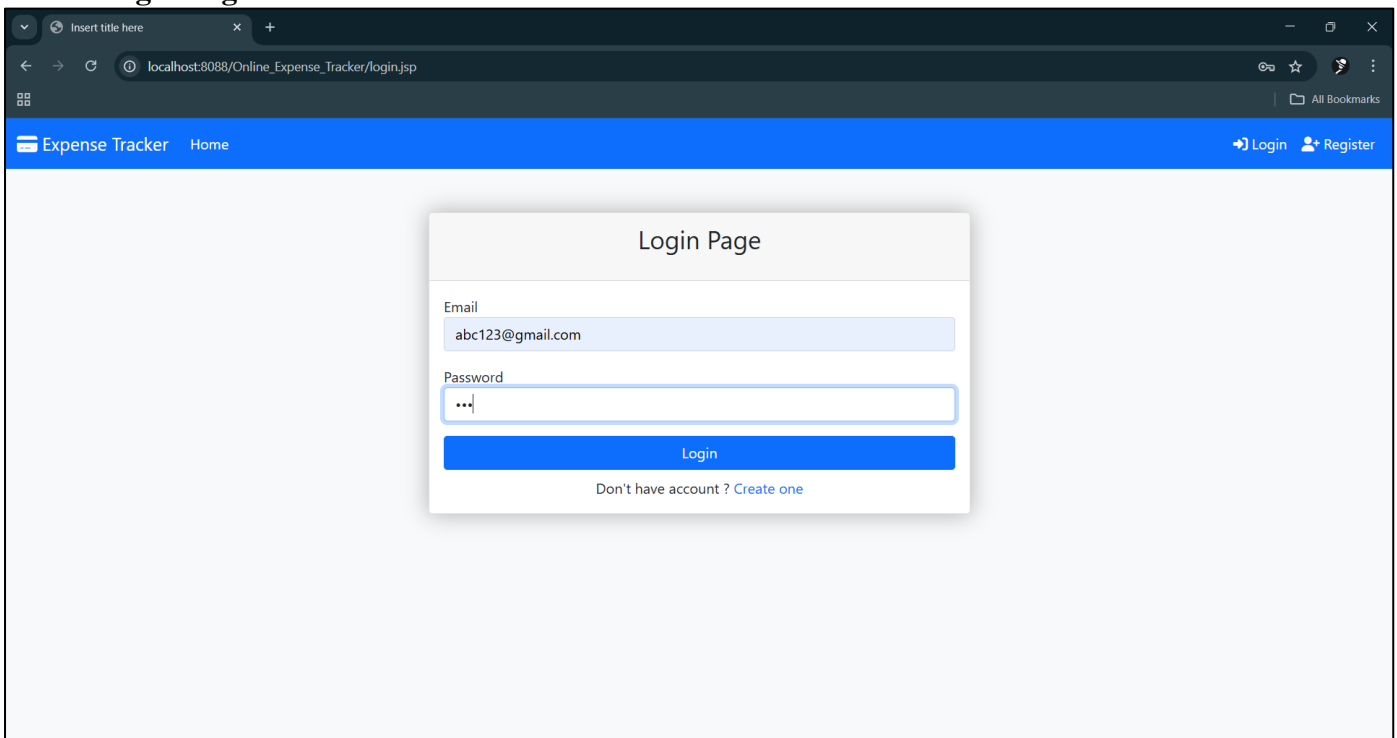
**Output :**
- **Home Page :**



- **Login Page :**

- **Add Expense Page :**



- **View Expense Page :**