My Expense Tracker

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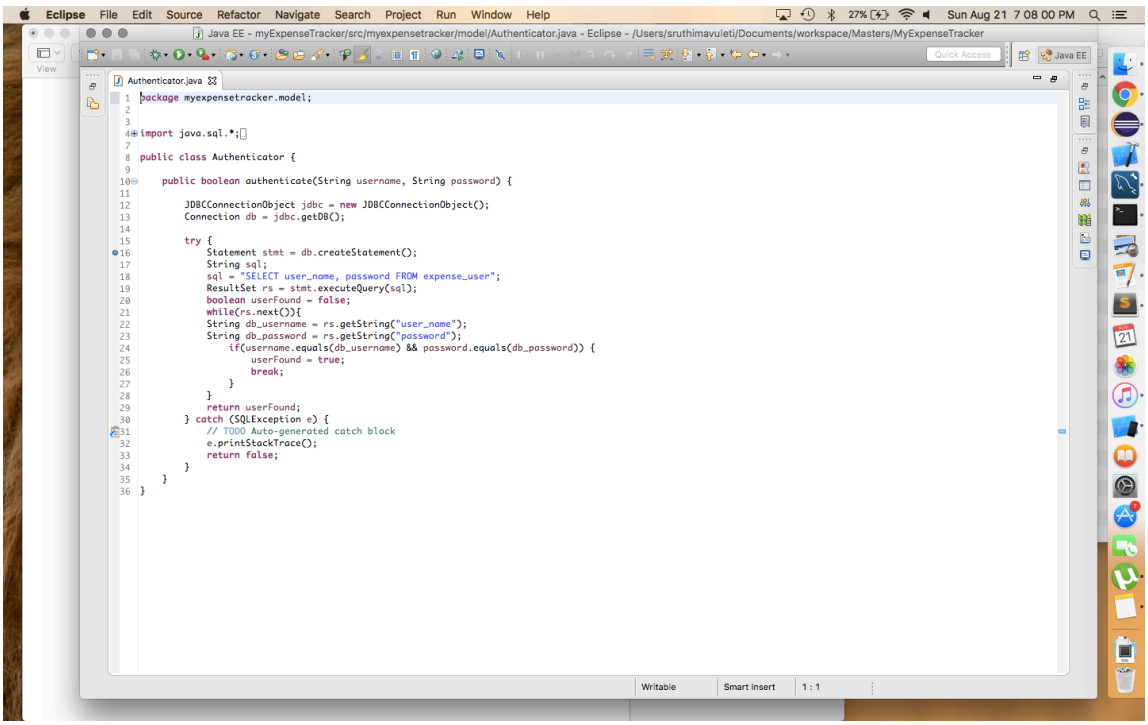
Abstract

My Expense Tracker is a web-based application for tracking all my expenses. In our daily life we want to note all our expenses and calculate how much we earn and how much we spent. This application allows users to track their expenses very easily. Users just need to sign up with their names and passwords and login to add their expense data. Initially there will be an admin, who can add users after login and later, a user can add many other users to enter and save their expenses data.

MVC Implementation

This is a web-based application written using MVC architecture of Java Servlets. And application is deployed on Tomcat 7. Java Server Pages, Java Standard Tag Library, Hyper Text Markup Language.

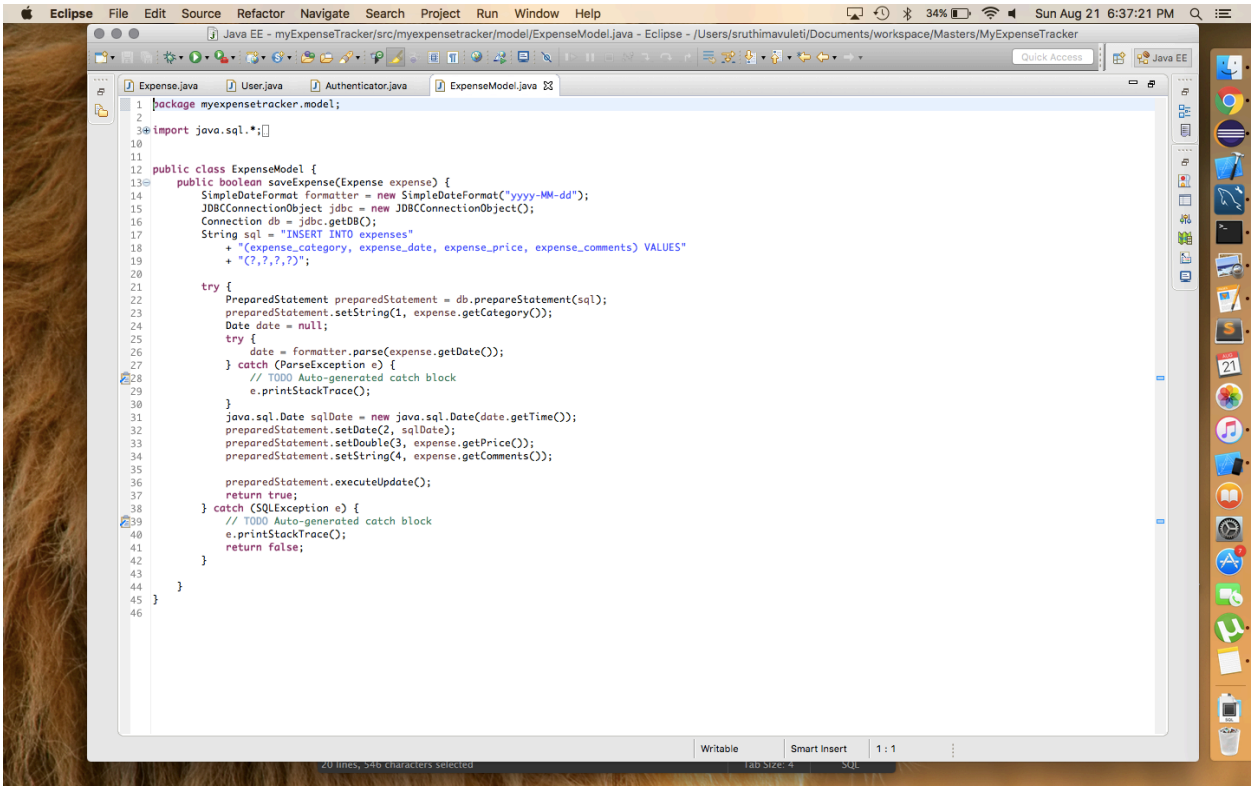
Model:
Myexpensetracker.model



Authenticator. Java

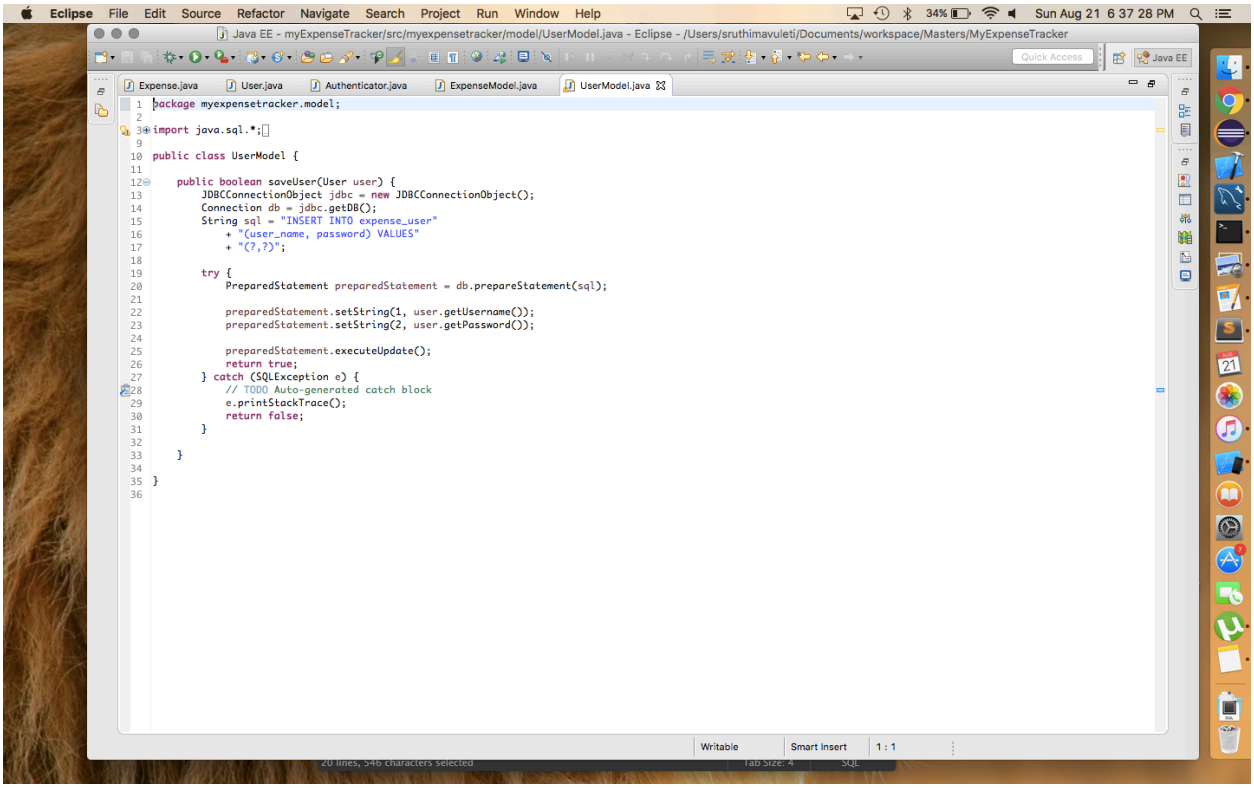
This is the model for login. It will authenticates from the database.

ExpenseModel.java



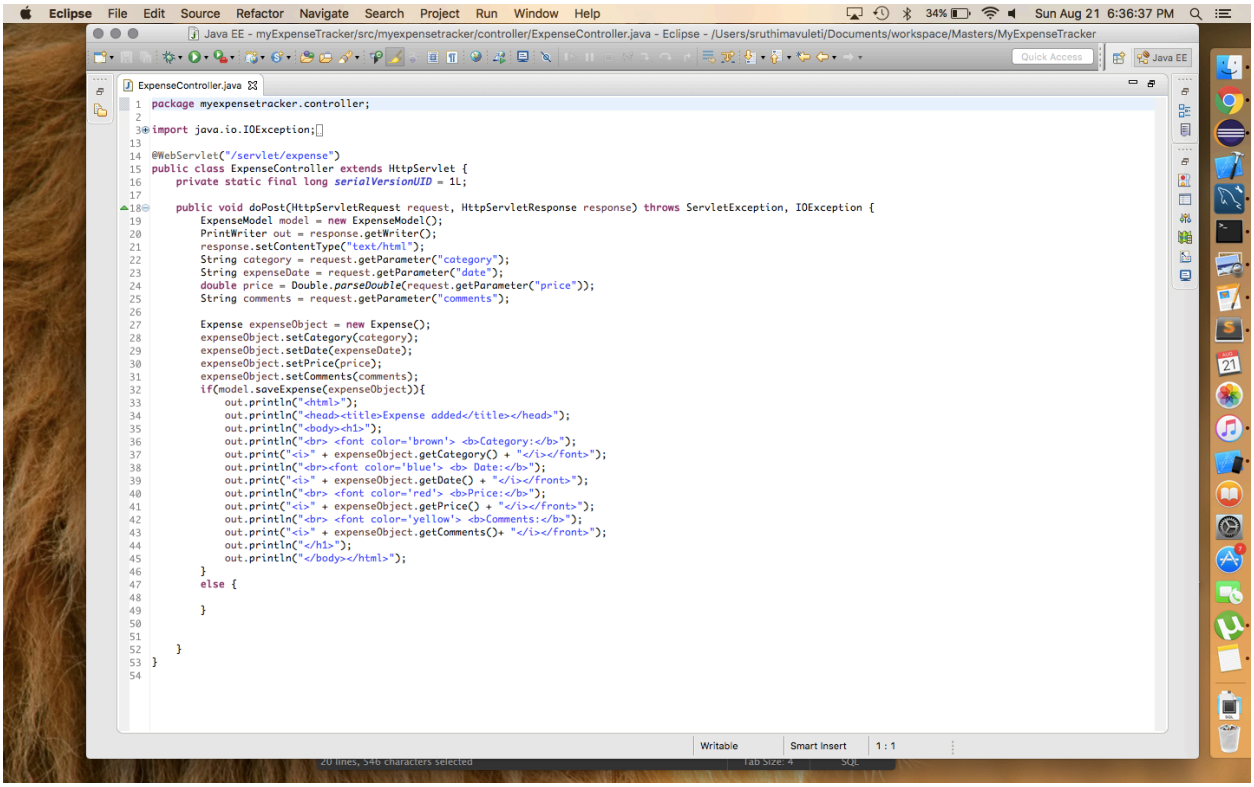
This
is
the model for adding expense by connecting to the database.

UserModel.java



This
is the model to add the user by connecting to the database.

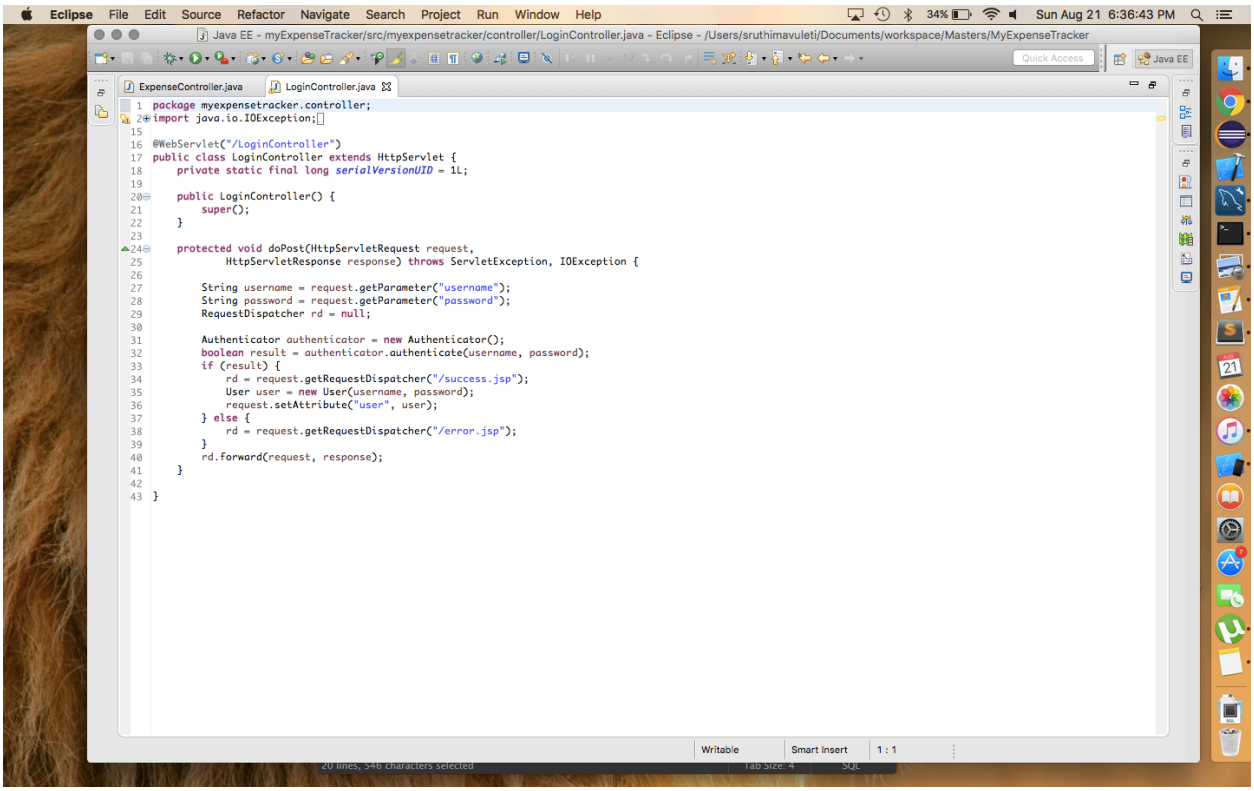
Controller:
Myexpensetracker.controller
ExpenseController.java




```java
package myexpensetracker.controller;

import java.io.IOException;

@WebServlet("/servlet/expense")
public class ExpenseController extends HttpServlet {
    private static final long serialVersionUID = 1L;

    public void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        ExpenseModel model = new ExpenseModel();
        PrintWriter out = response.getWriter();
        response.setContentType("text/html");
        String category = request.getParameter("category");
        String expenseDate = request.getParameter("date");
        double price = Double.parseDouble(request.getParameter("price"));
        String comments = request.getParameter("comments");

        Expense expenseObject = new Expense();
        expenseObject.setCategory(category);
        expenseObject.setDate(expenseDate);
        expenseObject.setPrice(price);
        expenseObject.setComments(comments);
        if(model.saveExpense(expenseObject)){
            out.println("<html>");
            out.println("<head><title>Expense added</title></head>");
            out.println("<body><h1>");
            out.println("<br> <font color='brown'> <b>Category:</b>");
            out.print("<i>" + expenseObject.getCategory() + "</i></font>");
            out.println("<br><font color='blue'> <b> Date:</b>");
            out.print("<i>" + expenseObject.getDate() + "</i></front>");
            out.println("<br> <font color='red'> <b>Price:</b>");
            out.print("<i>" + expenseObject.getPrice() + "</i></front>");
            out.println("<br> <font color='yellow'> <b>Comments:</b>");
            out.print("<i>" + expenseObject.getComments()+ "</i></front>");
            out.println("</h1>");
            out.println("</body></html>");
        }
        else {

        }


    }
}
```

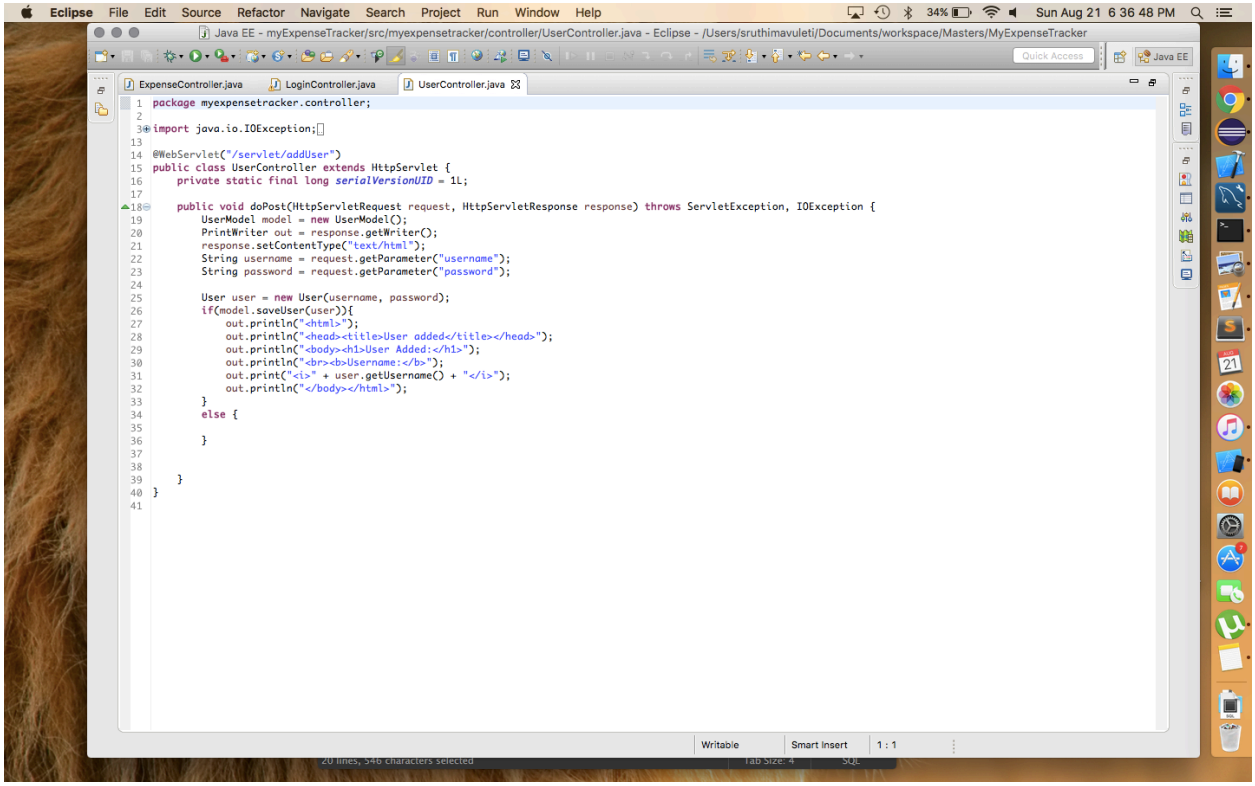
this
controller is for interacting with myExpenseTrackerMain.html page .

LoginController.java



this
controller interacts with the login.jsp for the username and password with the url: /LoginController. Here, if the login is success it renders /success.jsp if not it goes to error.jsp page.

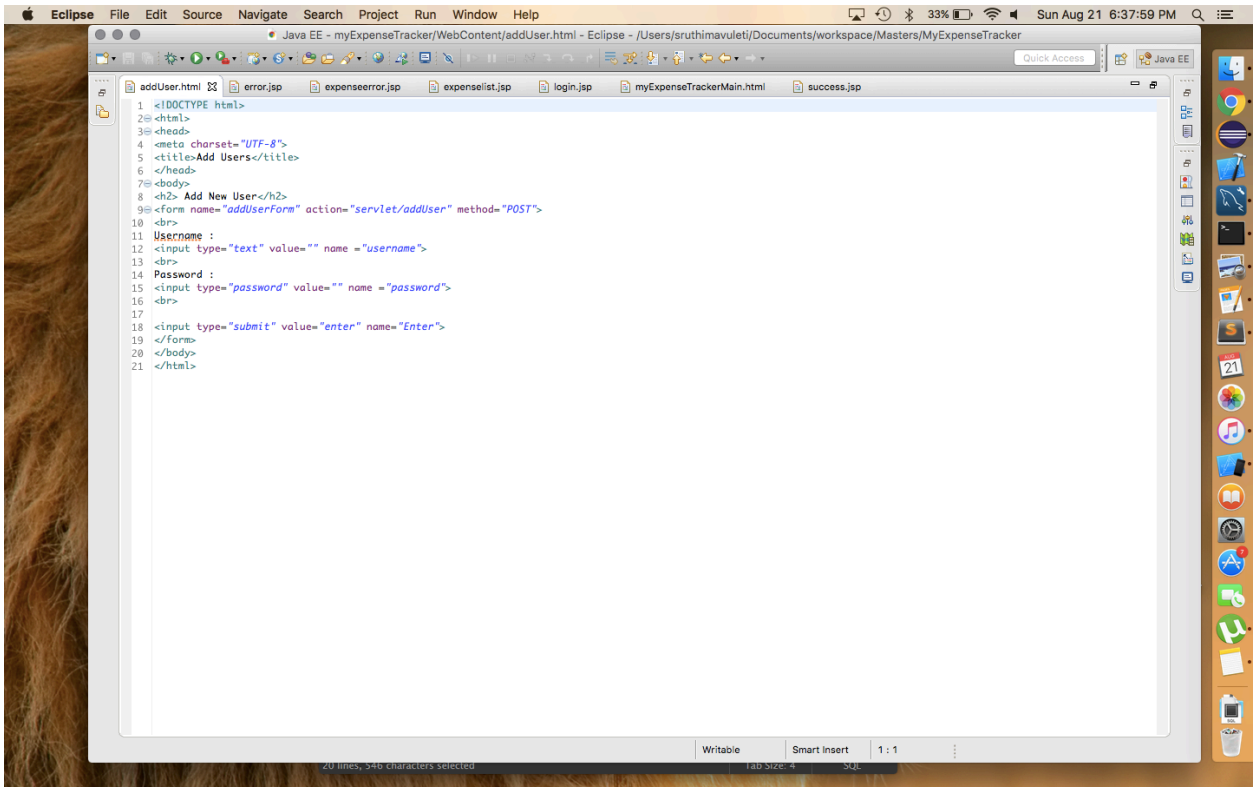
UserController.java



This controller is for adding user,it displays the added user name.

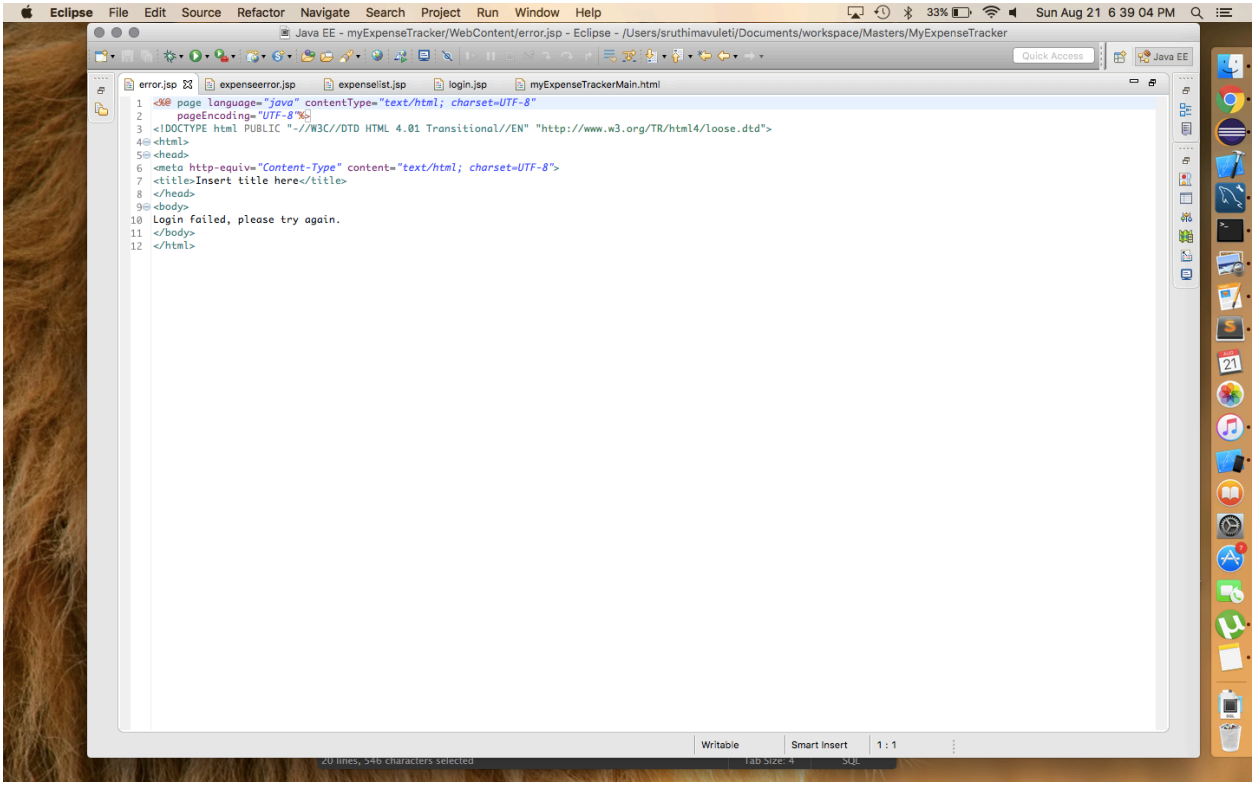
View:

addUser.html



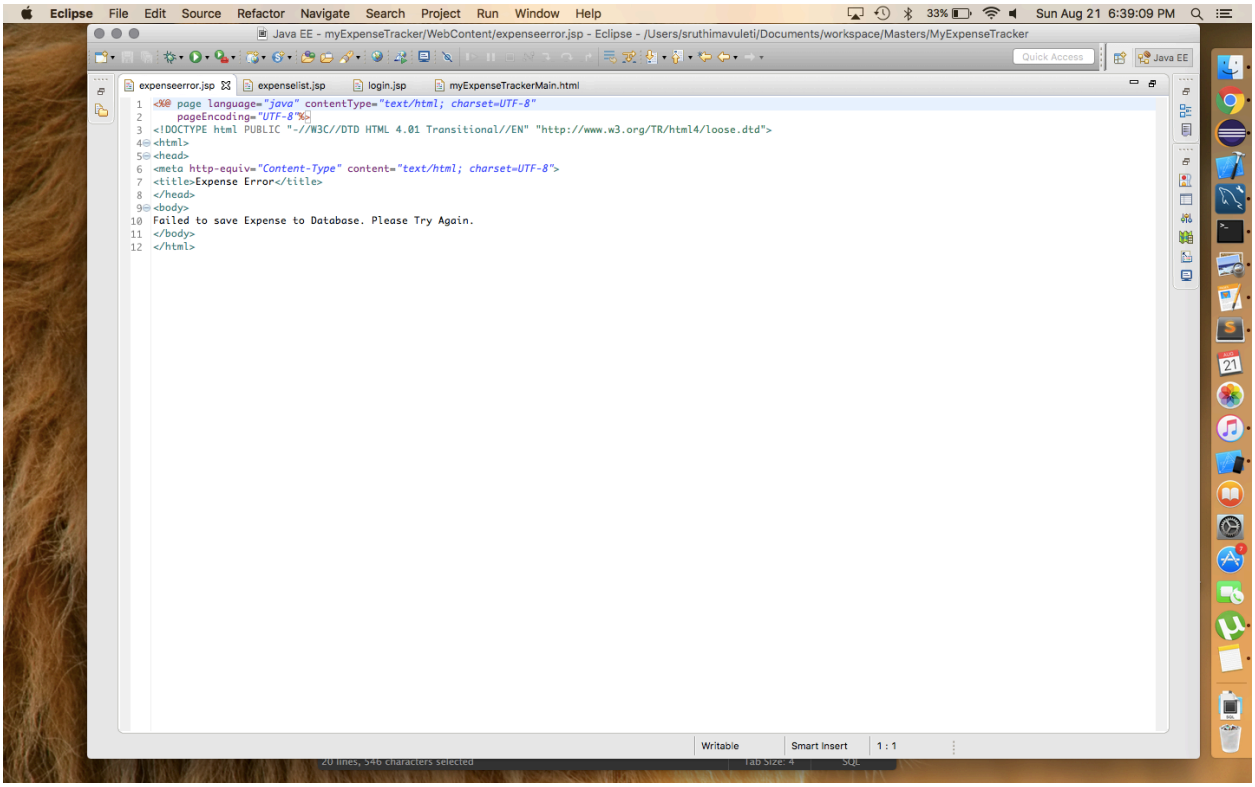
This
html page is consists of Username, Password input fields and Submit button. Here the form is connected to servlet/addUser (UserController.java).

error.jsp



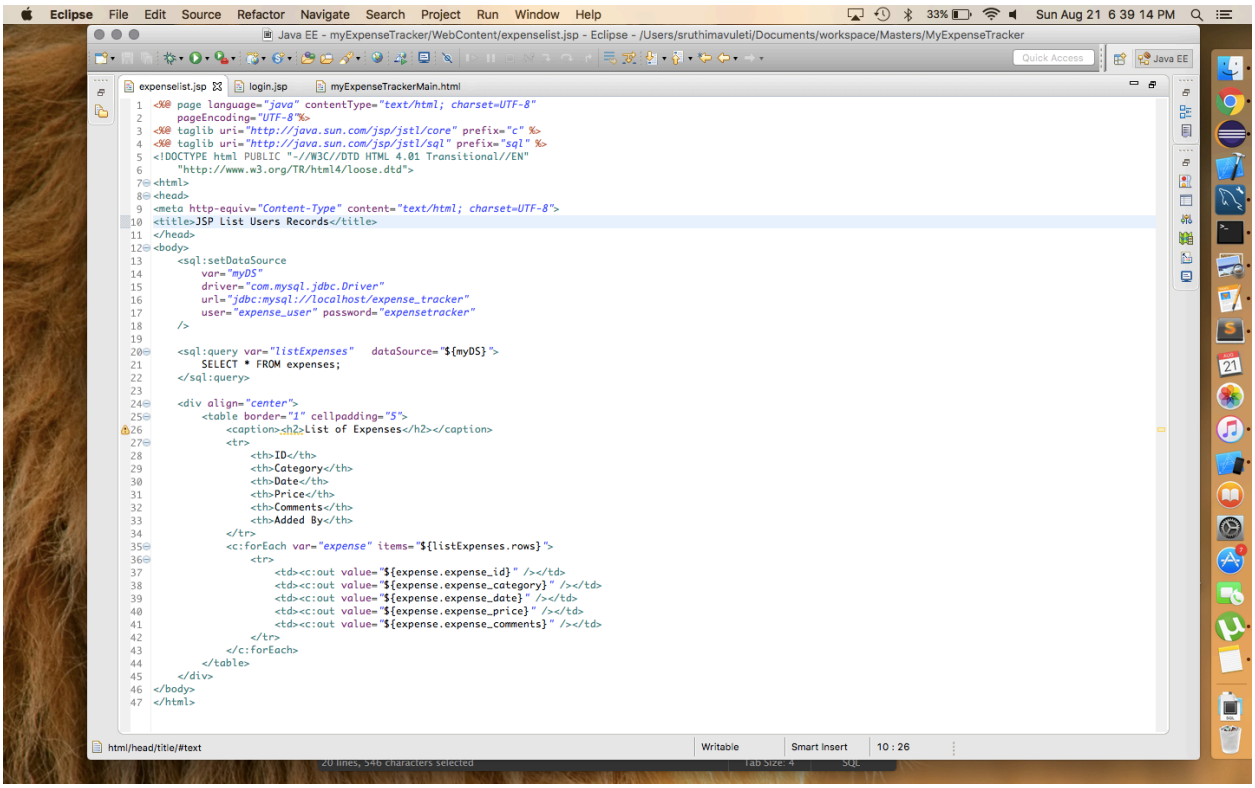
This
is the error page displayed when the username or password is wrong.

expenseerror.jsp



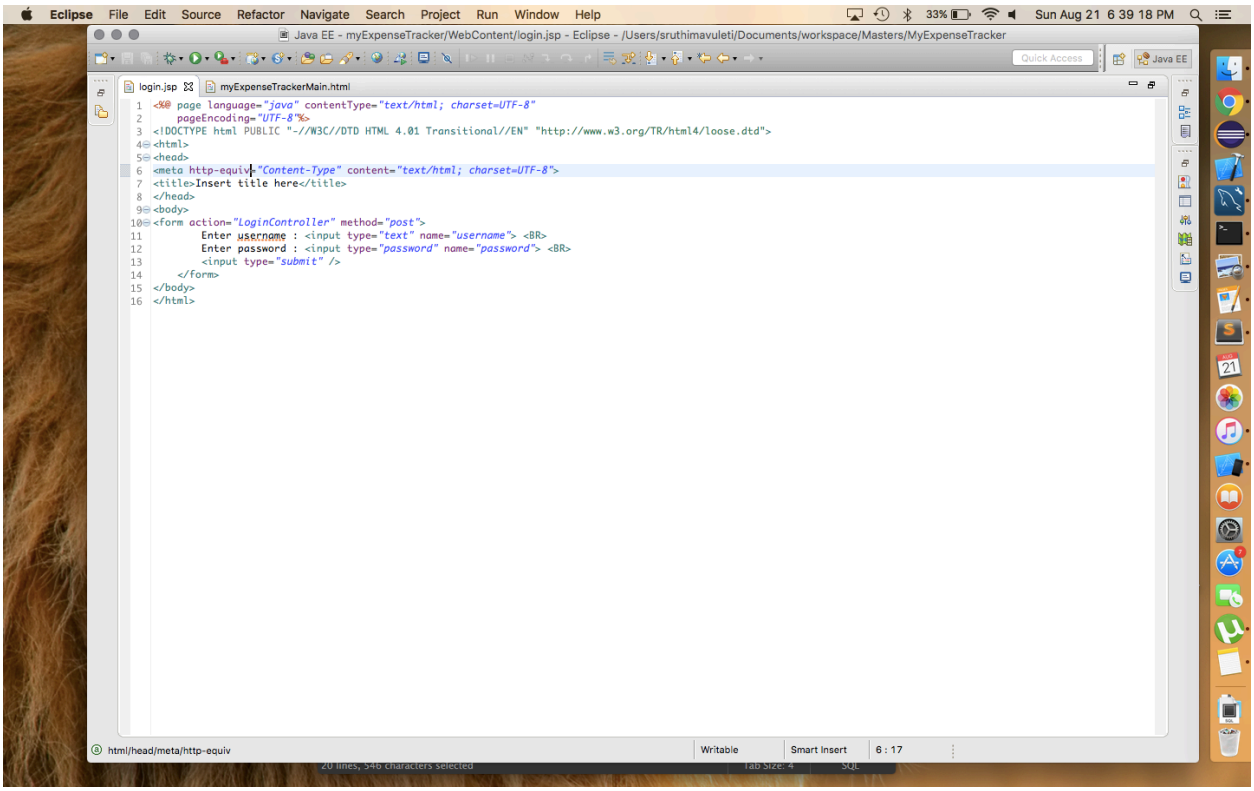
This page is displayed there is error in database connection while saving the expense data.

expenselist.jsp



This page is to display the list of the expenses added. Here sql tag is used to connect with the databse.

login.jsp


Eclipse File Edit Source Refactor Navigate Search Project Run Window Help
Sun Aug 21 6 39 18 PM
Java EE - myExpenseTracker/WebContent/login.jsp - Eclipse - /Users/sruthimavuleti/Documents/workspace/Masters/MyExpenseTracker
login.jsp
myExpenseTrackerMain.html
<%@ page language="java" contentType="text/html; charset=UTF-8"
pageEncoding="UTF-8"%>
<!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=UTF-8">
<title>Insert title here</title>
</head>
<body>
<form action="LoginController" method="post">
Enter username : <input type="text" name="username">
Enter password : <input type="password" name="password">
<input type="submit" />
</form>
</body>
</html>
html/head/meta/http-equiv
Writable
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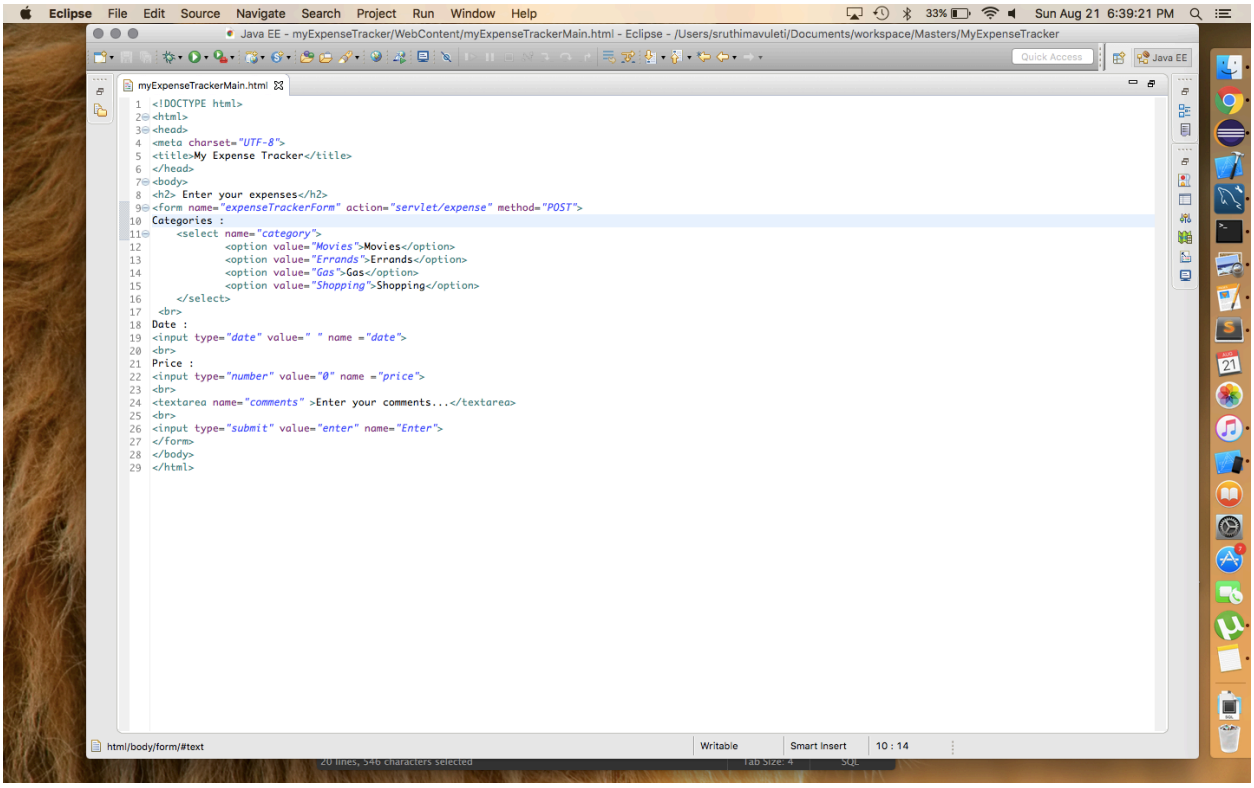
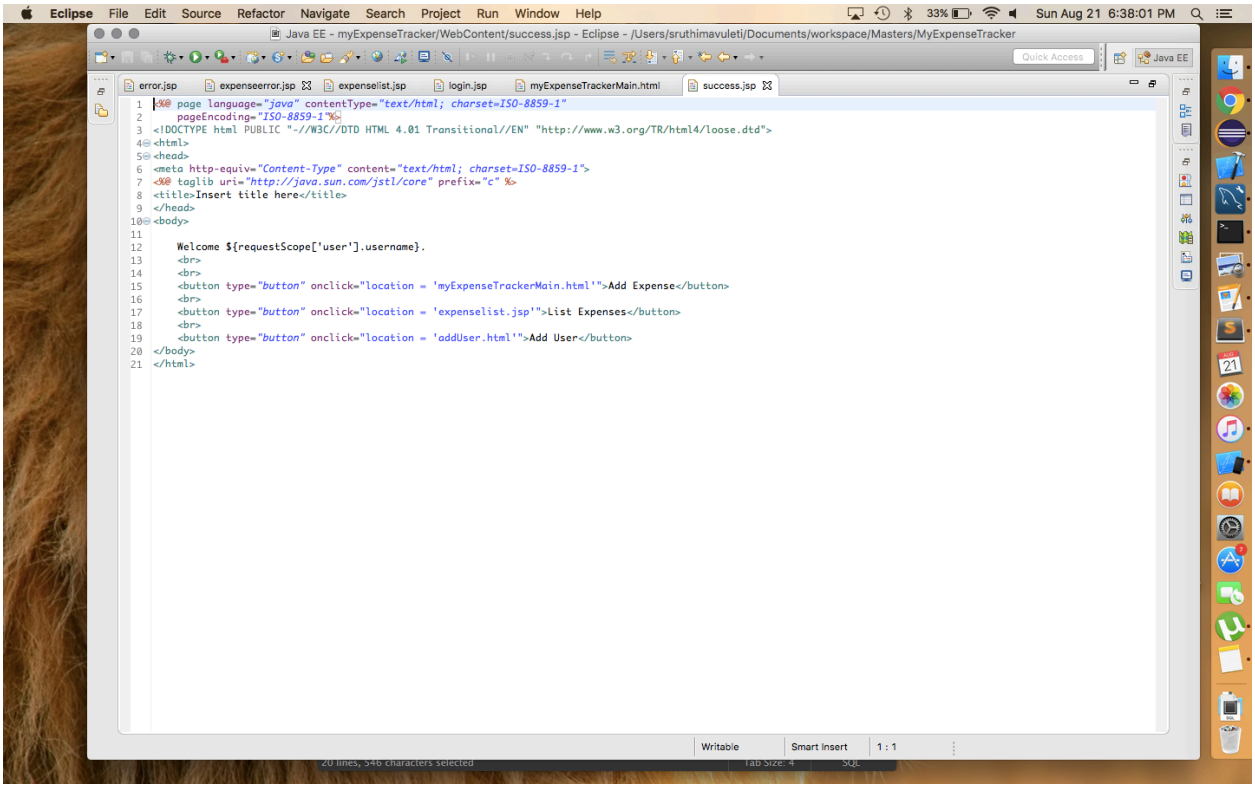
This page is to display the login page where user can enter the user name and password. This page is connected to LoginController for the data.

myExpenseTrackerMain.html



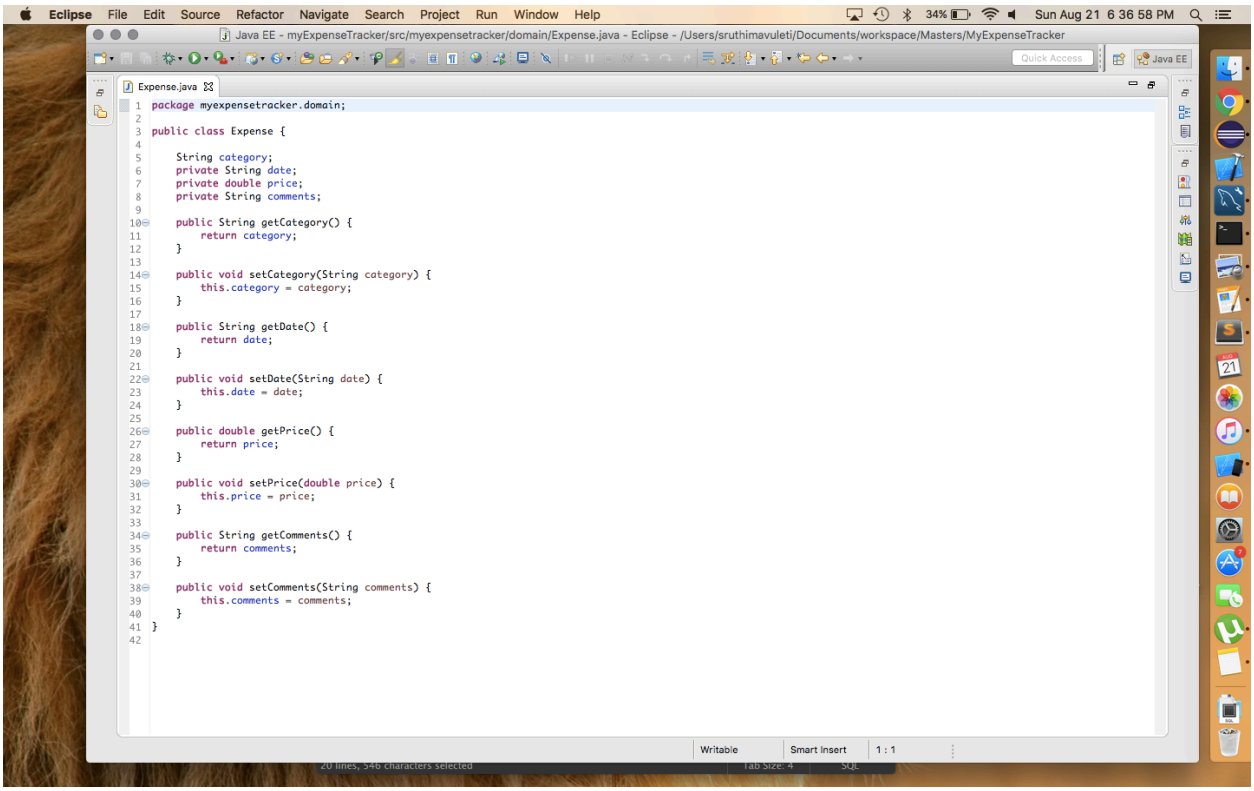
This is the main page where we can add the expenses by giving: categry, date, price, and comments.

success.jsp

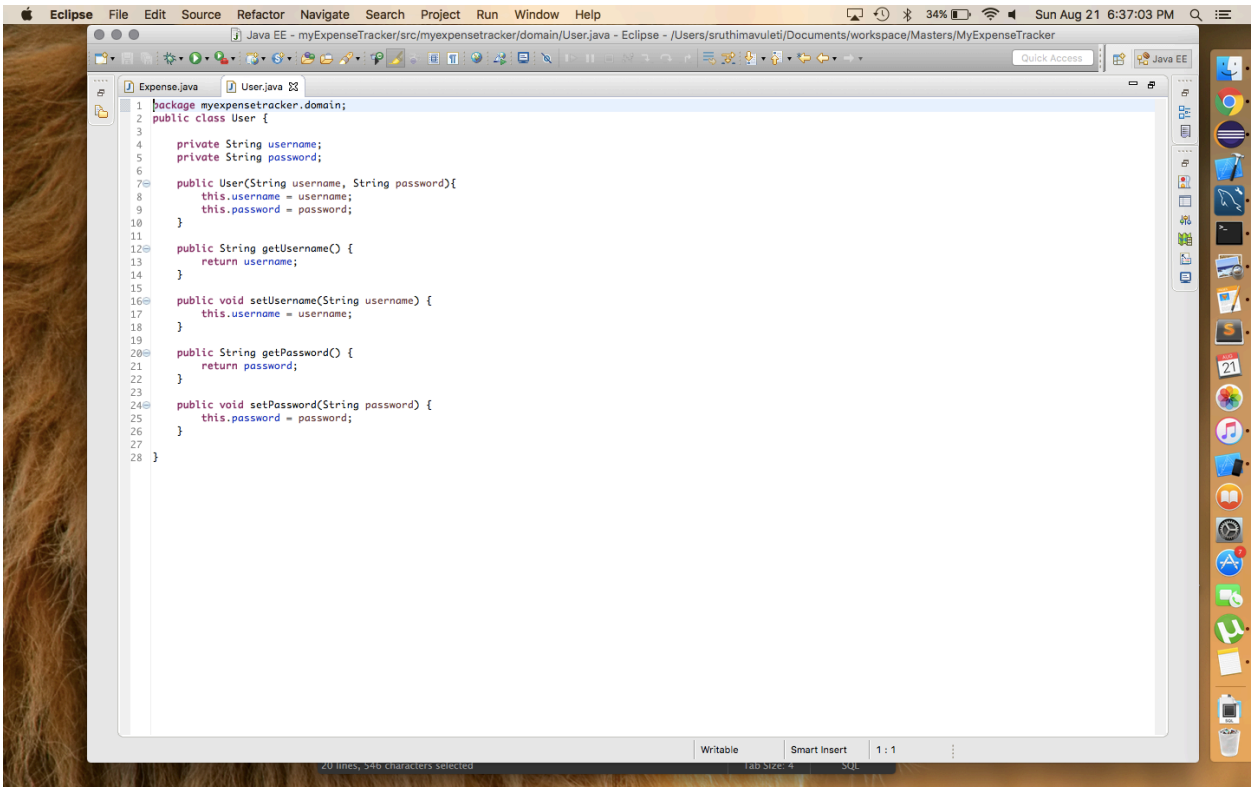


This page is the success page displays after the login is success. Here we'll display all the three options : Add expenses, List expenses, add user.

Helper :
Myexpensetracker.domain
Expense.java



User.java


Eclipse File Edit Source Refactor Navigate Search Project Run Window Help
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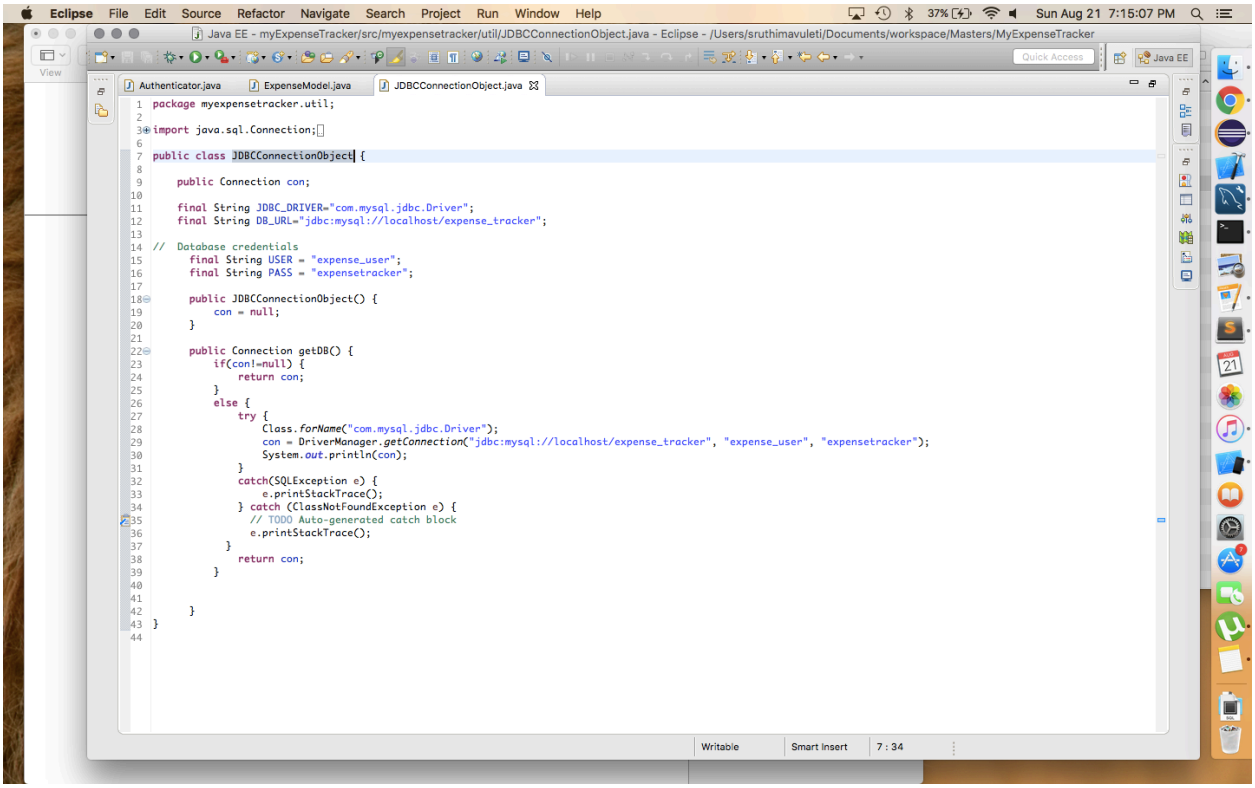
Java EE - myExpenseTracker/src/myexpensetracker/domain/User.java - Eclipse - /Users/sruthimavuleti/Documents/workspace/Masters/MyExpenseTracker
Quick Access
Java EE
Expense.java
User.java
package myexpensetracker.domain;
public class User {
private String username;
private String password;
public User(String username, String password){
this.username = username;
this.password = password;
}
public String getUsername() {
return username;
}
public void setUsername(String username) {
this.username = username;
}
public String getPassword() {
return password;
}
public void setPassword(String password) {
this.password = password;
}
}
Writable
Smart Insert
1 : 1

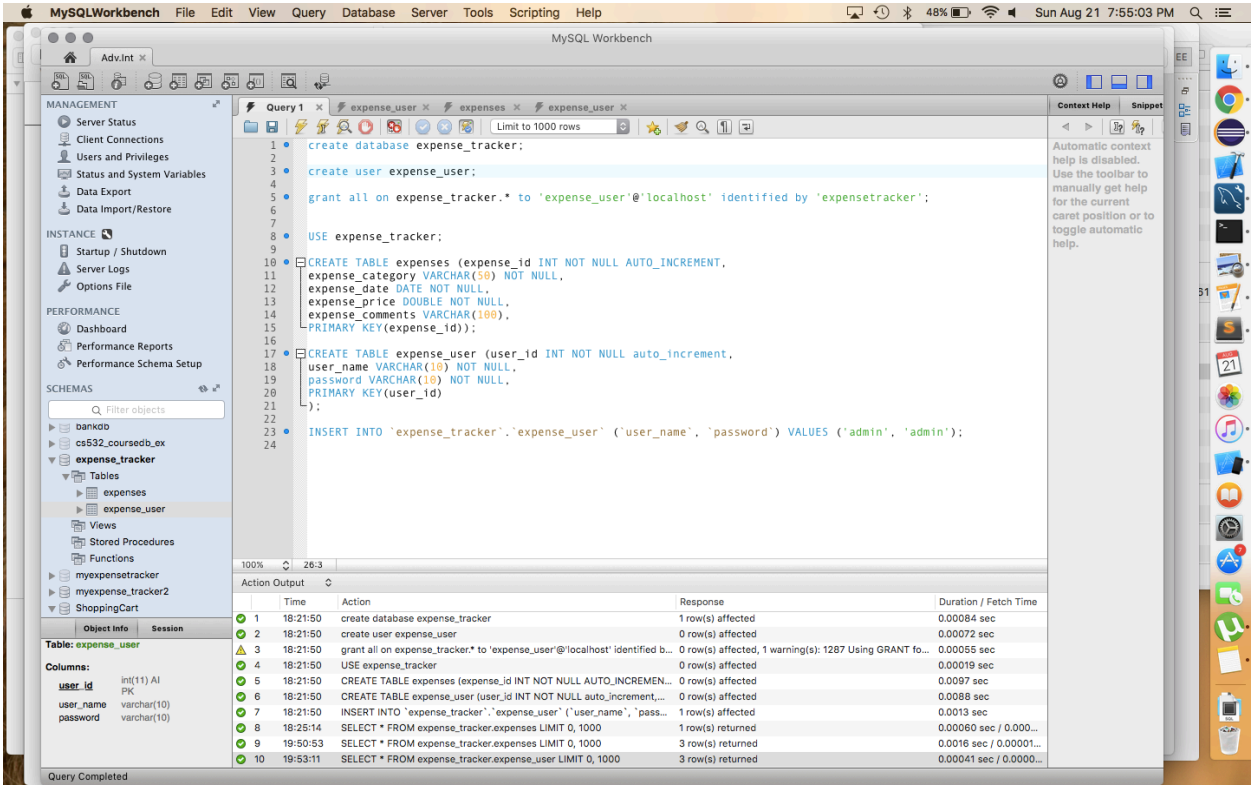
Myexpensetraker.util

JDBCConnectionObject.java



Database

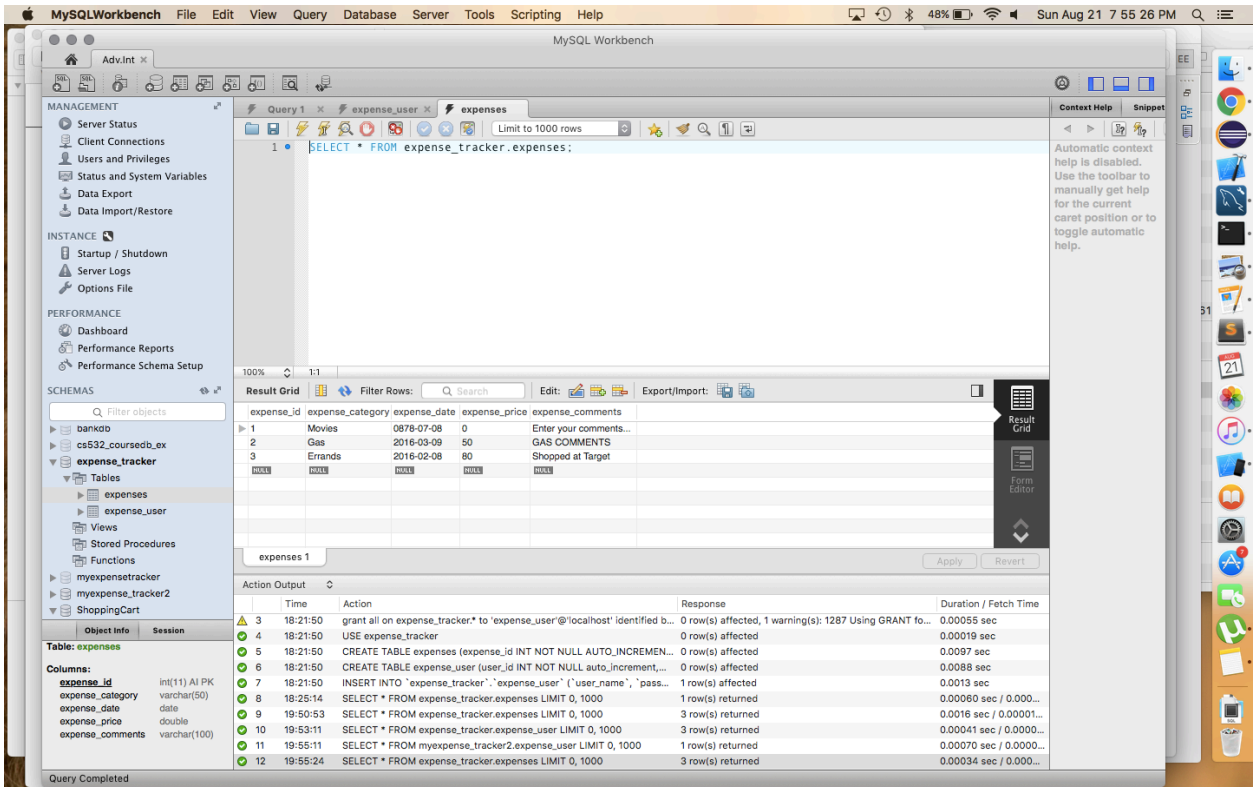
This application mainly needs two tables: expenses table and expense_user table.



Tables

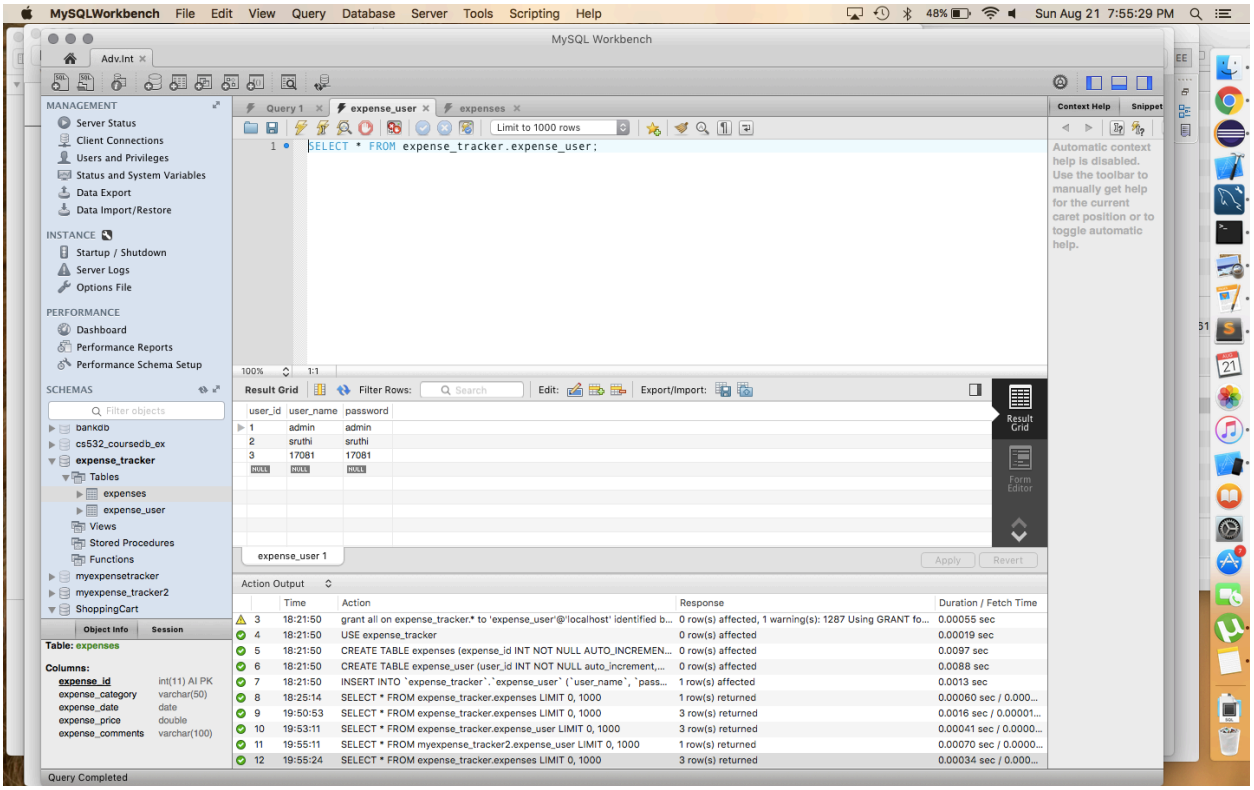
expenses table consists of:

expense_id: auto generated and unique id number for each expense.
expense_category: Such as Errands, Movies, Gas, Shopping, etc.
expense_date: on which date that category item was spent.
expense_price: and what was the item price.
expense_comments: can enter any comments.



expense_user table consists of:

user_id: auto generated and unique id number for every user.
user_name: name of the user, and
user_password: password of the user.



Execution

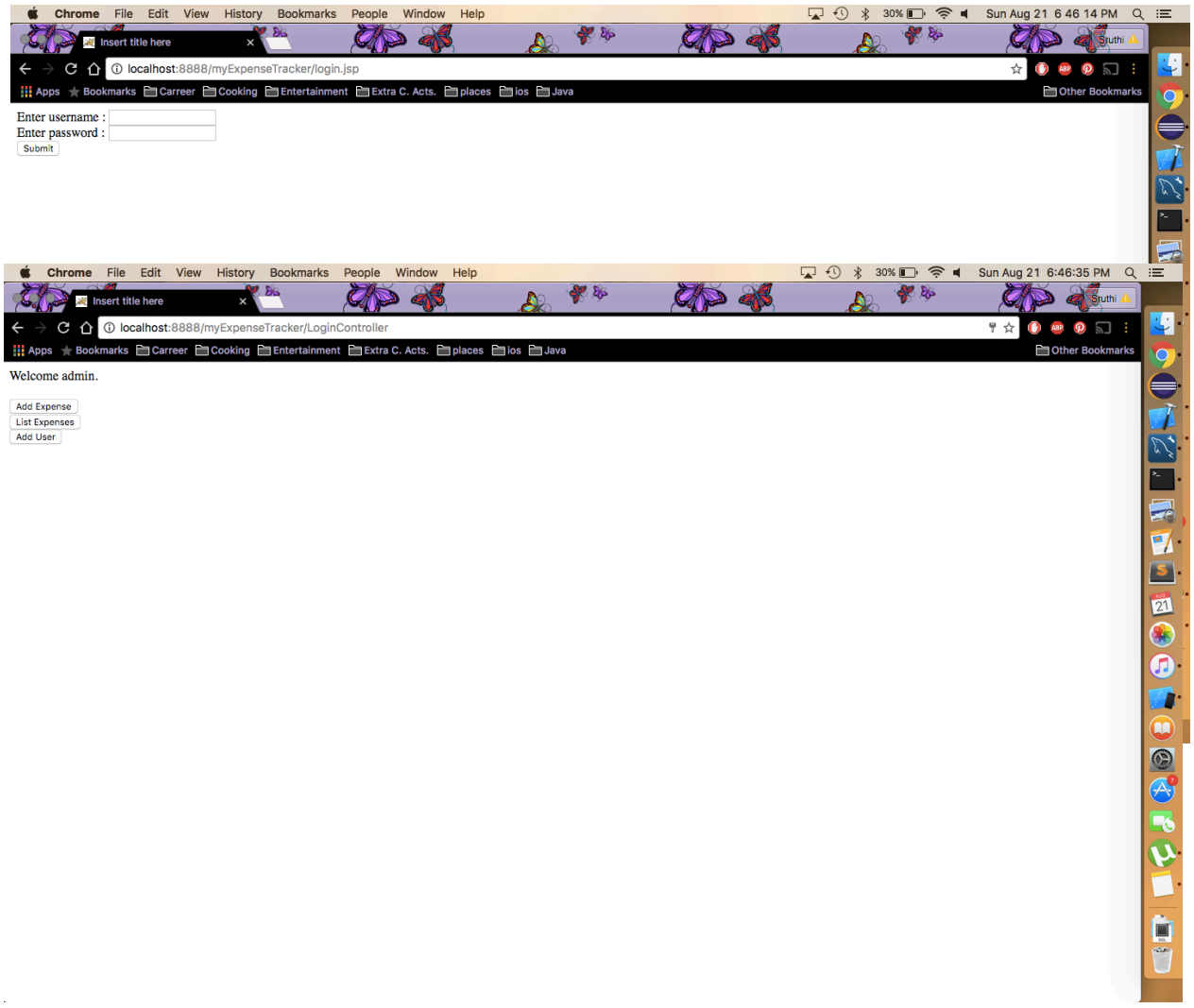
Url's

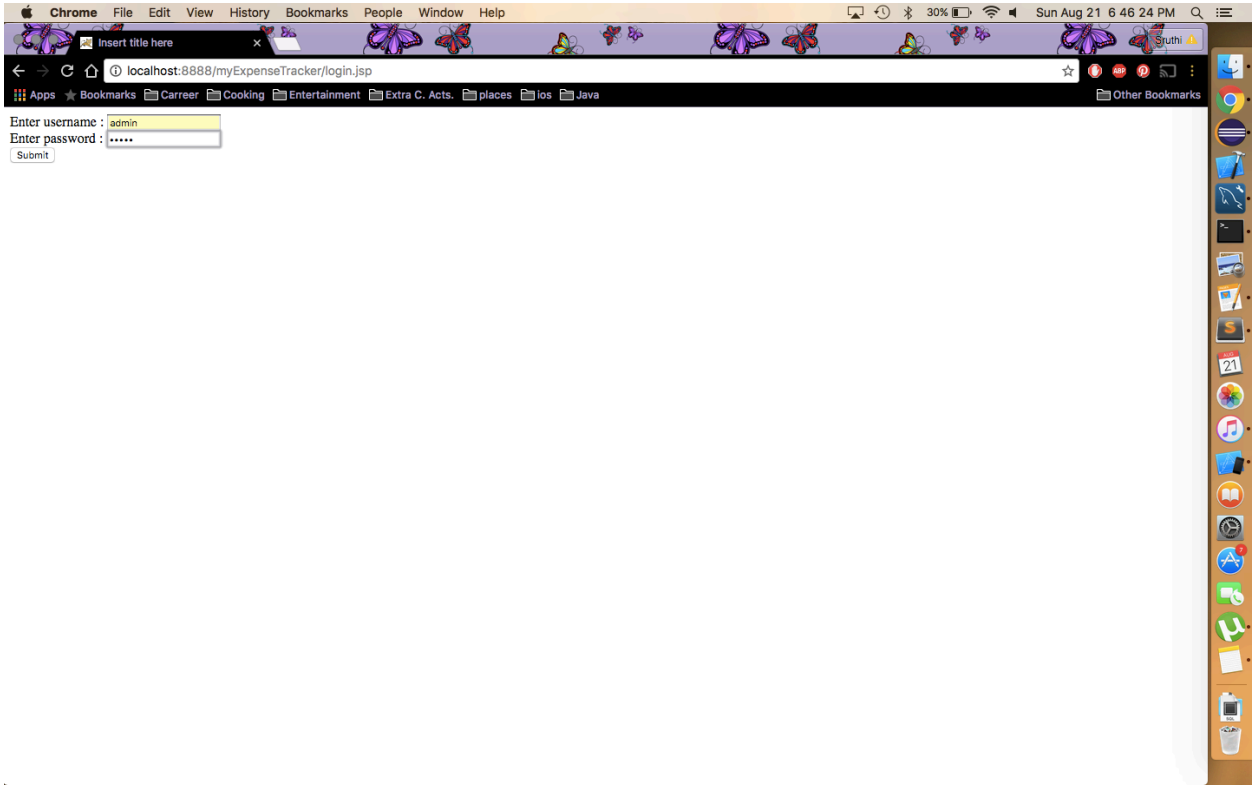
Login page: http://localhost:8888/myExpenseTracker/login.jsp

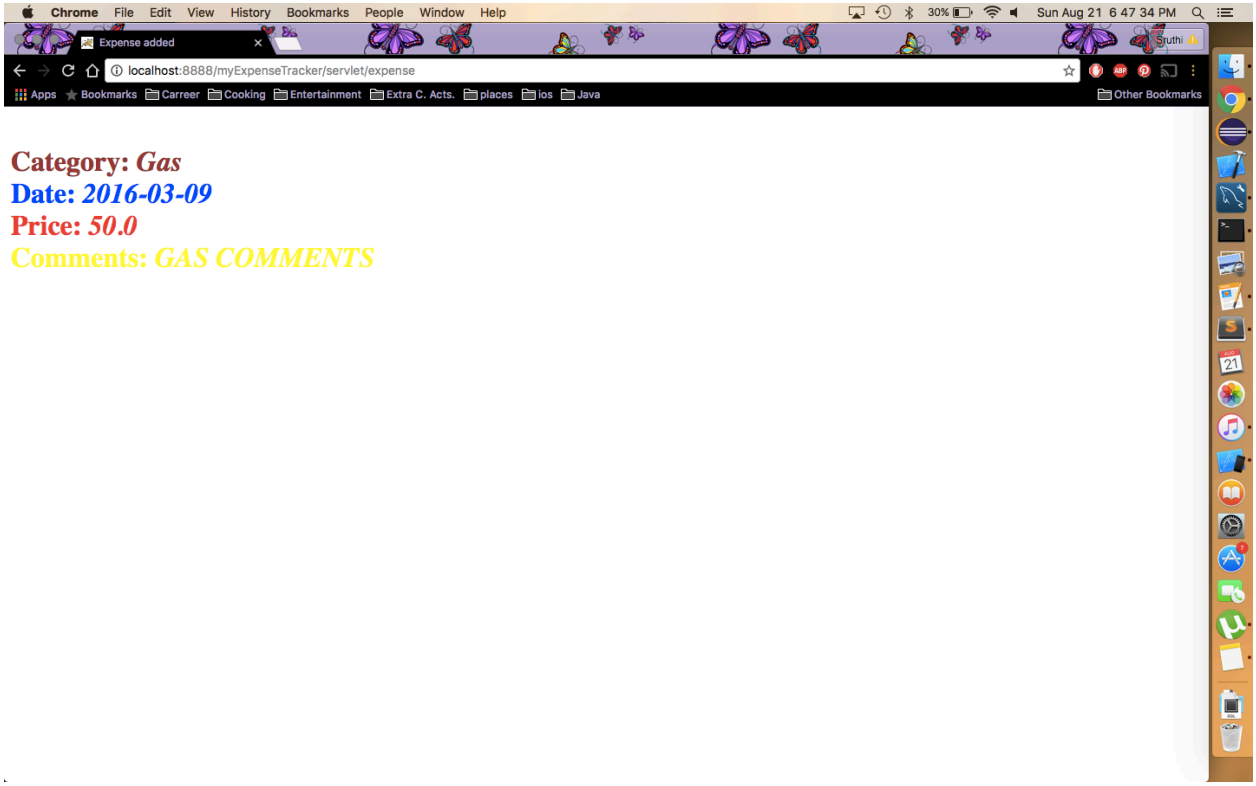
To add Expense: http://localhost:8888/myExpenseTracker/myExpenseTrackerMain.html

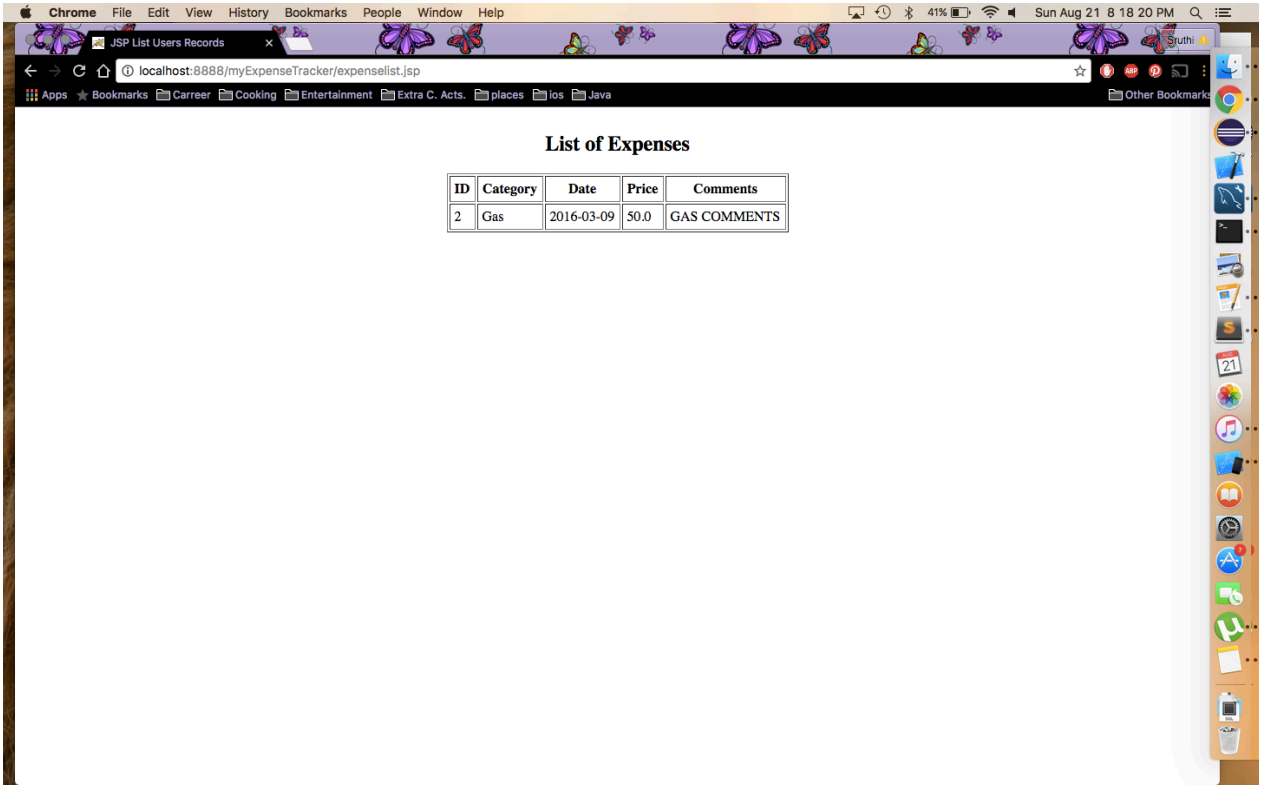
To View the List of expenses: http://localhost:8888/myExpenseTracker/expenselist.jsp

To add user: http://localhost:8888/myExpenseTracker/addUser.html




Chrome File Edit View History Bookmarks People Window Help
Sun Aug 21 6 46 24 PM
Insert title here
Sruthi
localhost:8888/myExpenseTracker/login.jsp
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
Enter username : admin
Enter password : ••••
Submit


Chrome File Edit View History Bookmarks People Window Help
Sun Aug 21 6 47 34 PM
Expense added
Sruthi
localhost:8888/myExpenseTracker/servlet/expense
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
Category: Gas
Date: 2016-03-09
Price: 50.0
Comments: GAS COMMENTS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JSP List Users Records
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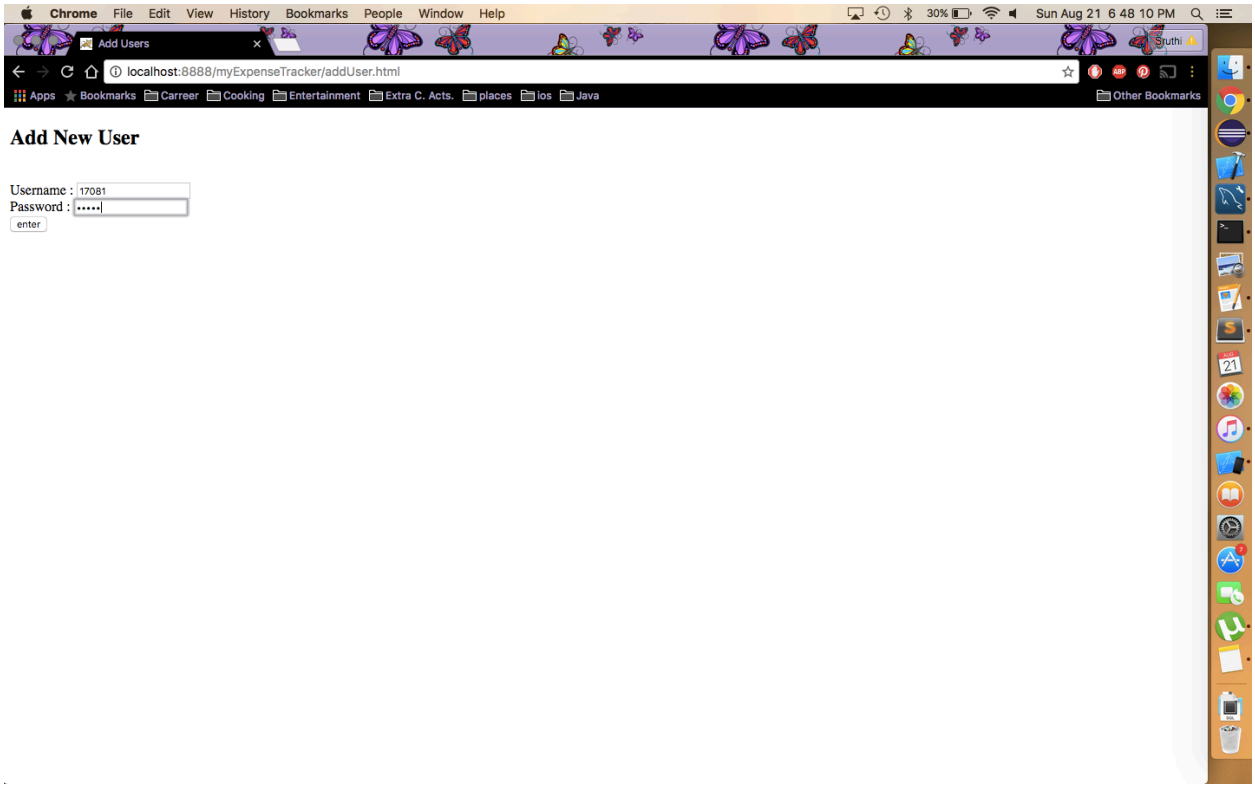
localhost:8888/myExpenseTracker/expenselist.jsp
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
List of Expenses
ID Category Date Price Comments
2 Gas 2016-03-09 50.0 GAS COMMENTS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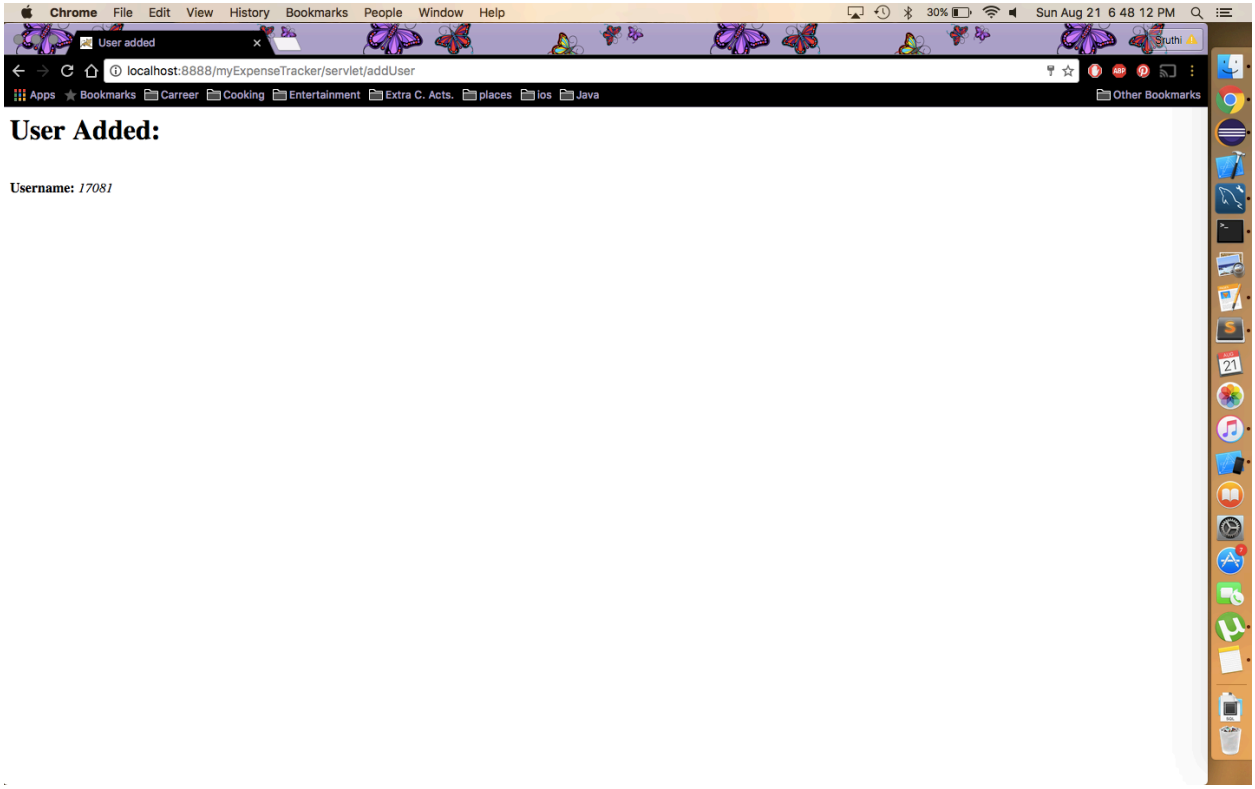
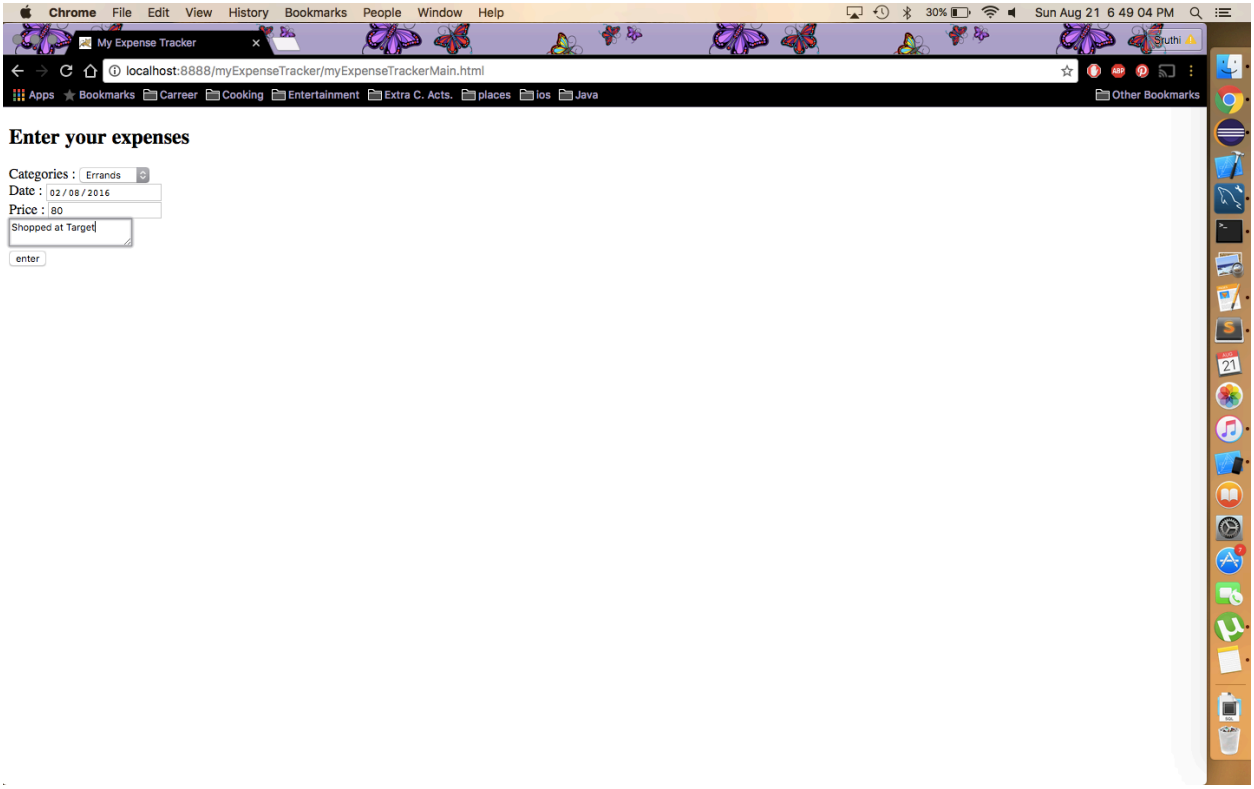
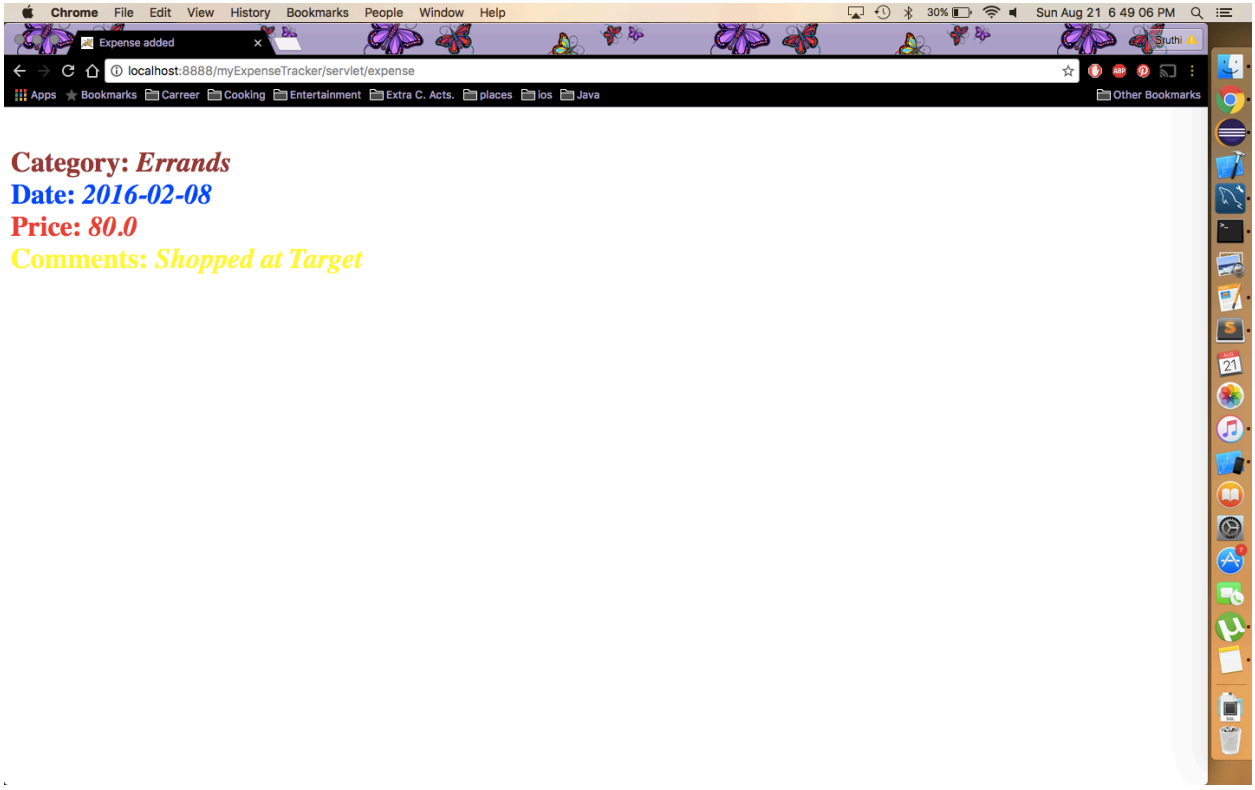
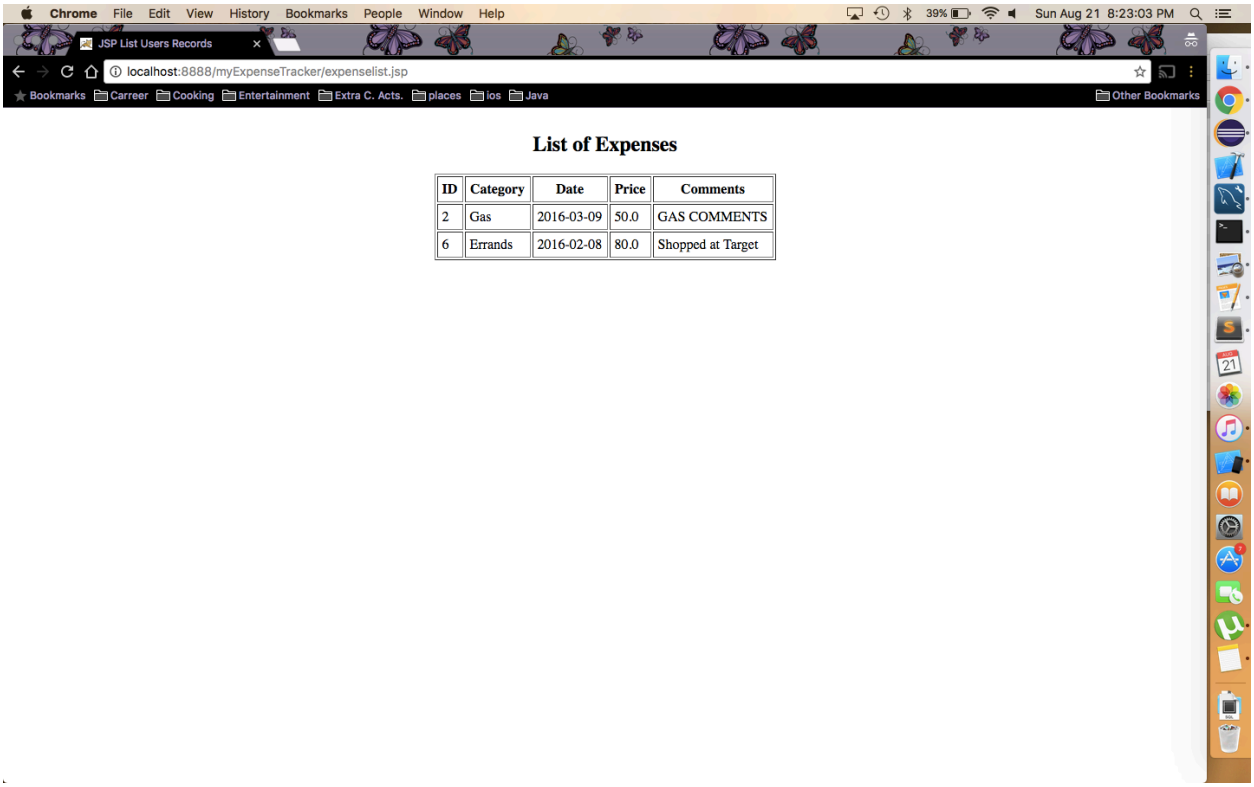
Sun Aug 21 6 48 10 PM
Add Users
Sruthi
localhost:8888/myExpenseTracker/addUser.html
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
Add New User
Username : 17081
Password :
enter


Chrome File Edit View History Bookmarks People Window Help
Sun Aug 21 6 48 12 PM
User added
Sruthi
localhost:8888/myExpenseTracker/servlet/addUser
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
User Added:
Username: 17081


Chrome File Edit View History Bookmarks People Window Help
Sun Aug 21 6 49 04 PM
My Expense Tracker
Sruthi
localhost:8888/myExpenseTracker/myExpenseTrackerMain.html
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
Enter your expenses
Categories : Errands
Date : 02/08/2016
Price : 80
Shopped at Target
enter


Chrome File Edit View History Bookmarks People Window Help
Sun Aug 21 6 49 06 PM
Expense added
Sruthi
localhost:8888/myExpenseTracker/servlet/expense
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
Category: Errands
Date: 2016-02-08
Price: 80.0
Comments: Shopped at Target


Chrome File Edit View History Bookmarks People Window Help
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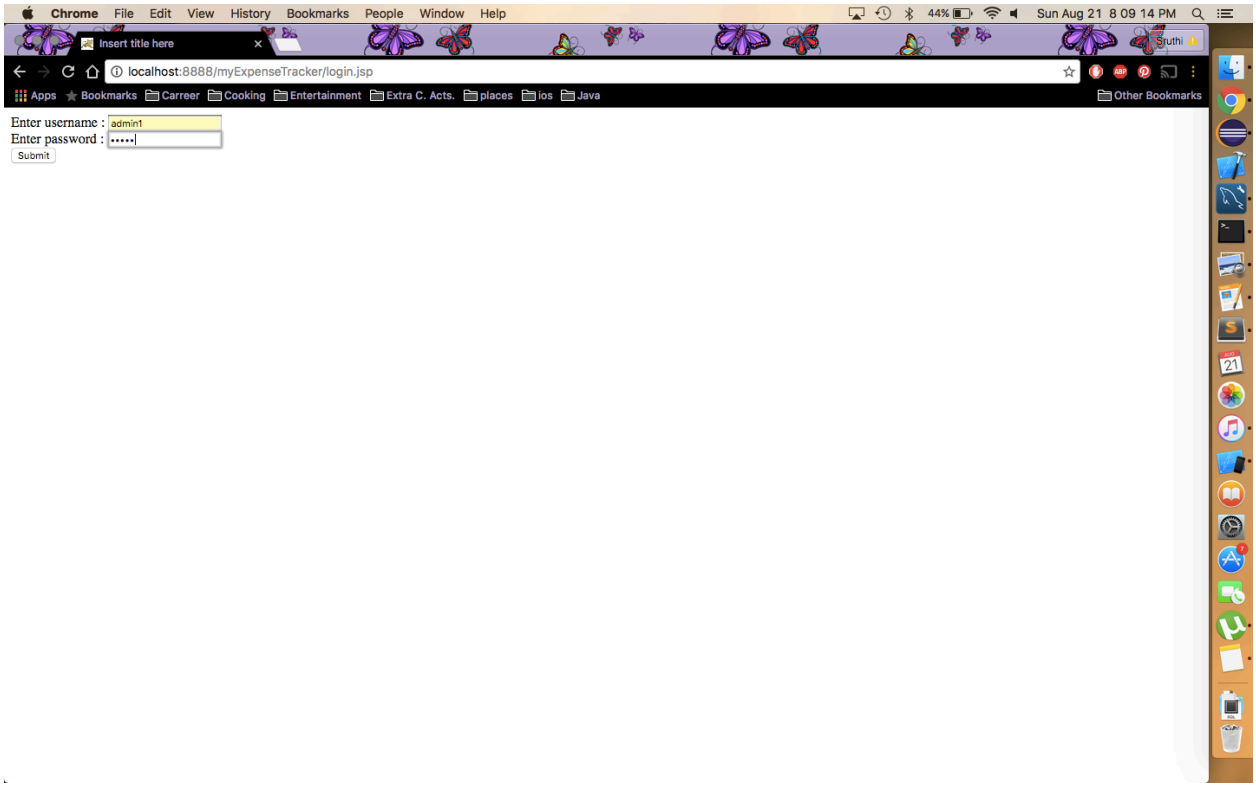
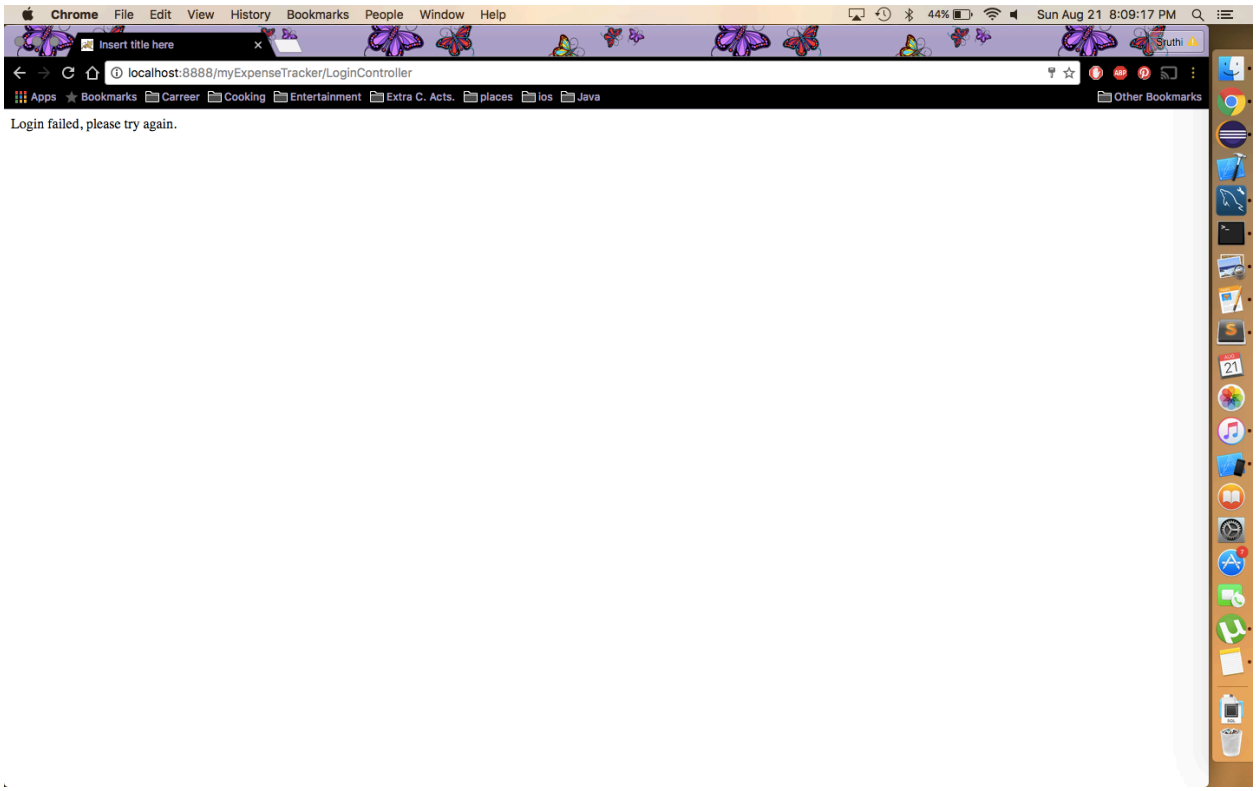
JSP List Users Records
localhost:8888/myExpenseTracker/expenselist.jsp
Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
List of Expenses
ID Category Date Price Comments
2 Gas 2016-03-09 50.0 GAS COMMENTS
6 Errands 2016-02-08 80.0 Shopped at Target


Chrome File Edit View History Bookmarks People Window Help
Sun Aug 21 8 09 14 PM
Insert title here
Sruthi
localhost:8888/myExpenseTracker/login.jsp
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
Enter username : admin1
Enter password :
Submit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Sun Aug 21 8:09:17 PM
Insert title here
Sruthi
localhost:8888/myExpenseTracker/LoginController
Apps Bookmarks Carreer Cooking Entertainment Extra C. Acts. places ios Java
Other Bookmarks
Login failed, please try again.