COMMISSION

1. SYSTEM INTRODUCTION

The following section will introduce the commission system.

1.1. WHAT IS COMMISSION?

Commission is a browser/server application that provides a system that manages producers, who provides items, and salespersons, who sells the items. One producer has many salespersons that sell only his items. The salespersons enter his sales into the system and send a report of a month when all sales for that month is entered. The producer can then confirm the report from the salesperson and approve his calculated commission for the month. Both user types can view their history of data related to them.
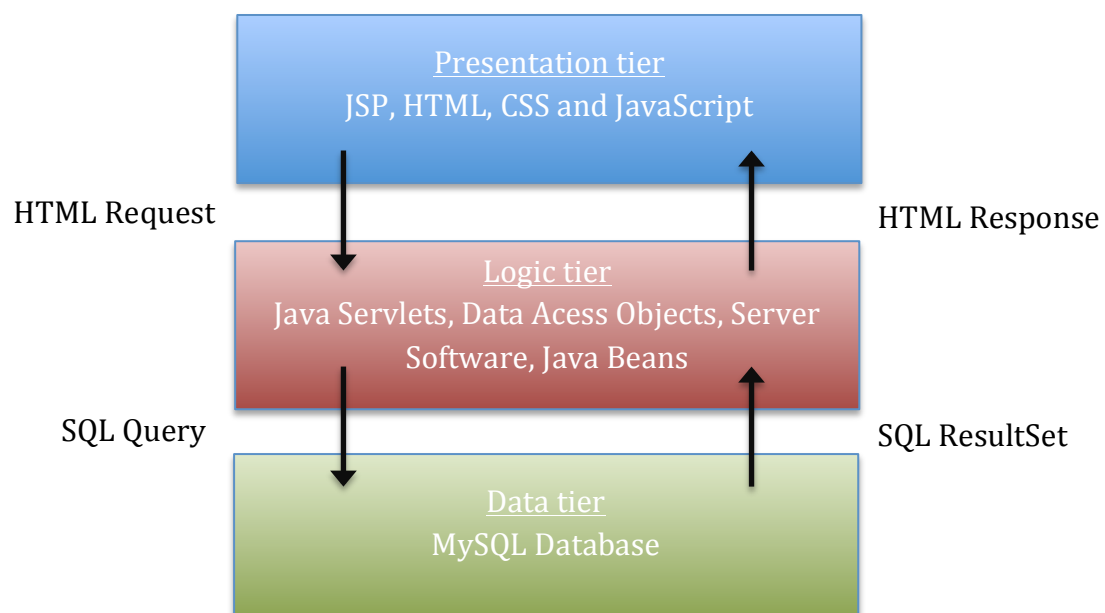
1.2. CONTEXT

This program is developed as a lab in the Software Testing and Quality Assurance course given at Harbin Institute of Technology 2013 by Liu Shu.

The producer is specified as a gunsmith who has the item locks, stocks and barrels that cost $45, $30, $25 respectively. The gunsmith has multiple salespersons that sell his items in different towns in his area. The salespersons gets their salary based on the sum of sold items during a month.

1.3. ARCHITECTURE

The commission program uses the three-tier architecture. The presentation tier consists of JSP documents that use jQuery and Javascripts for dynamic functionalities. The logic tier consists of Javas Servlets running on an Apache Tomcat server that handles the business logic for the application. For the business tier to communicate with the data tier we use the design pattern data access object which provides an abstract interface to the MySQL database.

Presentation tier
JSP, HTML, CSS and JavaScript

HTML Request

HTML Response

Logic tier
Java Servlets, Data Acess Objects, Server Software, Java Beans

SQL Query

SQL ResultSet

Data tier
MySQL Database

2.   HOW TO USE COMMISSION

In this section we will provide a user guide for the salesman and gunsmith interface and how the interaction between them is supposed to be.

2.1. THE SALESPERSON:

ADD SALE
1. Change date of the sale by pressing the calendar icon.
2. Submit your sale by pressing the 'Add sale' button Log in with your username and password.
3. In the 'Add sale' tab you can enter a sale
    - A sale can consist of at least one item.
    - A salesperson can sell a maximum of 70 locks, 80 stocks and 90 barrels each month.

VIEW SALES AND REPORT SALES
In the 'Sales' tab you can see the history of all sales made by you

1. To view a specified month, select a month in the calendar field and press 'Filter month'
2. When a month is filtered you can report that month to your gunsmith by pressing 'Send Report'
3. The report is then send to the gunsmith for confirmation of the sales and calculation of your commission

Note:

- After reporting a month you will not be able to add more sales to that month.
- To be able to report a month the salesperson must have sold at least 1 lock, 1 stock and 1 barrel during that month.
- To remove the filter, press 'Show All'

VIEW SALARY (COMMISSION)
1. In the 'Salary' tab you can view your confirmed (with salary) and unconfirmed reports.
2. Log out by pressing the 'Log out' button

2.2. THE GUNSMITH:

VIEW SALES
1. Log in with your username and password.
2. In the 'Sales' tab you can show all sales your salespersons has made.
3. You can also filter by salesperson with the dropdown list and 'Filter' button

1. In the 'Commission' tab you can see all unconfirmed reports send by your salespersons
2. Each unconfirmed report has a calculated commission value based on the sum of sales during that month:
3. A lock cost 45, a stock cost 30 and a barrel cost 25.
4. The commission if calculated as follows: 10% on sales up to (and including) $1000, 15% on the next $800, and 20% on any sales in excess of $1800.
5. To confirm a report press 'Confirm'

Log out by pressing the 'Log out' button.

3. INSTALLATION GUIDE

3.1. THE PROGRAM REQUIRES:
- At least Java 1.7
- At least Apache Tomcat 7.0
- At least MySQL 5.5.20

The program is developed with the specified version numbers of services, lower version numbers is not tested and not official supported.
The setup guide below is to be executed in a Windows environment.

3.2. JAVA SETUP:
- Download and install Java from http://java.com/

3.3. APACHE TOMCAT SETUP:
- Download Apache Tomcat at http://tomcat.apache.org/
- Unpack the package at a location of your choice
- Move the Commission.war file into the folder "<tomcat location>/webapps/"
- Start the Tomcat server by running "<tomcat location>/bin/startup.bat"

3.4. MYSQL SETUP:
- Download and install MySQL form http://www.mysql.com/
- Create a new database named 'sqaat'.
- Run the attached sqaat.sql file in the database.
- Make sure the database settings are the same as the settings in "<tomcat location>/webapps/Commission/WEB-INF/classes/config.properties". If you want to change the settings in the file, you need to restart the Tomcat server for the changes to take place. Also make sure that the database user has the right privilegies in the database.
- Default users are found in the table 'user', these can be modified manually via MySQL.

To start the program, simply enter "http://localhost:8080/Commission/" in your browser.

3.5. AUTHORS OF THE APPLICATION

The application is developed by David Buö and Niklas Lavrell.