

Lab Report 3

The Commission Program			
Class No.	12MSE – International Class		
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<u>Program Spec.</u> <ul style="list-style-type: none"><input type="checkbox"/> A rifle salesperson in the former Arizona Territory sold rifle locks, stocks, and barrels made by a gunsmith in Missouri.<input type="checkbox"/> Locks cost \$45, stocks cost \$30, and barrels cost \$25.<input type="checkbox"/> The salesperson had to sell at least one complete rifle per month, and production limits were such that the most the salesperson could sell in a month was 70 locks, 80 stocks, and 90 barrels.<input type="checkbox"/> After each town visit, the salesperson sent a telegram to the Missouri gunsmith with the number of locks, stocks, and barrels sold in that town.<input type="checkbox"/> At the end of a month, the salesperson sent a very short telegram showing -1 locks sold.<input type="checkbox"/> The gunsmith then knew the sales for the month were complete and computed the salesperson's commission as follows: 10% on sales up to (and including) \$1000, 15% on the next \$800, and 20% on any sales in excess of \$1800.<input type="checkbox"/> The commission program produced a monthly sales report that gave the total number of locks, stocks, and barrels sold, the salesperson's total dollar sales, and, finally, the commission.			

Test Cases

We have only performed black-box testing since we have not got access to the source code. The test cases only focus on the actual functionality of the system since we think that is the relevant part of this lab, but we will give an overall feedback of the system. The three main functionalities we have tested is the log in function, the add sale function and the calculation of the commission.

Note: the default production limits in the program is 20 locks, 20 stocks and 15 barrels.

#	Input	Expected Output	Description
1	300, pass300	Logged in	Login. Equivalence class. Valid username and password.
2	199, pass200	Not logged in	Login. Equivalence class. Invalid username and valid password.
3	300, pass400	Not logged in	Login. Equivalence class. Valid username and invalid password.
4	400, pass400	Not logged in	Login. Equivalence class. Invalid username and invalid password.
5	Unreported month, 10,10,10	Valid report	Add sale. Normal. Valid sales report.
6	Unreported month, 1, 1, 1	Valid report	Add sale. Normal. Min Boundary.
7	Unreported month, 20, 20, 15	Valid report	Add sale. Normal. Max Boundary
8	Unreported month, 0, 0, 0	Invalid report	Add sale. Min- Boundary. Robustness
9	Unreported month, 21, 21, 16	Invalid report	Add sale. Max+ Boundary. Robustness.
10	Unreported month, 21,10,10	Invalid report	Add sale. Equivalence class. Too many locks.
11	Unreported month, 10,21,10	Invalid report	Add sale. Equivalence class. Too many stocks.
12	Unreported month, 10,10,16	Invalid report	Add sale. Equivalence class. Too many barrels.
13	Unreported month, 5,5,5. Same month, 5,5,5.	Second sale not added	Add sale. Special case. Multiple sales in the same town in the same month.
14	Add valid sale, 5,5,5	Commission: 50	Commission. Equivalence class. Salary ≤ 1000 .
15	Add valid sale, 15,15,15	Commission: 175	Commission. Equivalence class. $1000 < \text{Salary} \leq 1800$.
16	Add valid sale, 20,20,15	Commission: 235	Commission. Equivalence class. $1800 < \text{Salary}$.

Test Report

#	Input	Expected Output	Output	Confirmed
1	300, pass300	Logged in	Logged in	OK
2	199, pass200	Not logged in	Nor logged in	OK
3	300, pass400	Not logged in	Not logged in	OK
4	400, pass400	Not logged in	Not logged in	OK
5	Unreported month, 10,10,10	Valid report	Valid report	OK
6	Unreported month, 1, 1, 1	Valid report	Valid report	OK
7	Unreported month, 20, 20, 15	Valid report	Valid report	OK
8	Unreported month, 0, 0, 0	Invalid report	Invalid report	OK
9	Unreported month, 21, 21, 16	Invalid report	Valid report	OK
10	Unreported month, 21,10,10	Invalid report	Valid report	OK
11	Unreported month, 10,21,10	Invalid report	Valid report	OK
12	Unreported month, 10,10,16	Invalid report	Valid report	OK
13	Unreported month, 5,5,5. Same month, 5,5,5.	Second sale not valid	Second sale not valid	OK
14	Add valid sale, 5,5,5	Commission: 50	Commission: 50	OK
15	Add valid sale, 15,15,15	Commission: 175	Commission: 175	OK
16	Add valid sale, 20,20,15	Commission: 235	Commission: 235	OK

Summary

According to the basic requirements the program has some differences in the functionality. The report for a month is reported automatically after a sale is added, which means that the salesperson only can add one sale for each month, town, and gunsmith. So, the salespersons need to remember his sales for a month and enter it into the system when the month is over. Otherwise the basic functionality is good implemented, the item prices is stored in the database and not hard-coded, as well as the production limit for each gunsmith. The reports are well generated and contain all the data that is needed.

The installation guide fulfilled our needs and we were able to deploy the whole system on our own computers including the database and the web application.

The user manual is well written and descriptive, all the functions exist in the documentation and no one lacks information on how to execute it.

The overall feel of the system is very good, the user recognizes the layout and design, and so he can easily browse around in the application without getting lost.

At last, all the test cases passed and which indicates that the functionality is very stable and work in an acceptable way. So, we consider the system acceptable.

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