DEPARTAMENTO DE CIENCIAS DE LA COMPUTACIÓN INGENIERÍA EN SISTEMAS E INFORMÁTICA

PROJECT "LIQUOR STORE AUTOMATION"

MEMBERS:

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Tutor(a):

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Sangolquí, June 24th, 2020

1. Introduction

This document describes all the requirements for the design of software for a liquor store system. The software does not belong to any specific company or business. The specification has been structured based on the guidelines that have been given by the IEEE830 standard.

1.1. Purpose

- • The main objective is to define in a correct and concrete way the functional and non-functional requirements and thus be able to develop the new software for the liquor store services, validating through this document.
- The following software that is being developed belongs to the same team, so there are no requirements for the development of this program.

1.2. Scope

The software due to all the features it presents and to which it is focused will be called "Liquor Store Automation".

Consider the following points in a more detailed way: Application by user console

- Enter to the system.
- Manage beverage code.
- Create Order.
- Register data for the Electronic Invoice.
- Confirm Order.

Console application for System Administrator.

- Enter to system.
- Review Order

- Check the electronic bill.
- Verify Data.
- View order location.

1.3. Involved Staff

Name:	Camila Venegas
Rol:	Project leader, developer, tester.
Professional category:	Software Engineering Student
Responsibilities:	Developer
Contact information:	cvvenegas@espe.edu.ec
Approval:	Yes

Name:	Wilson Toapanta
Rol:	Developer, verifier
Professional category:	Software Engineering Student
Responsibilities:	Code review, help and verify documentation work
Contact information:	wdtoapanta3@espe.edu.ec
Approval:	Yes

Name:	Alex Velástegui
Rol:	Developer, verifier
Professional category:	Software Engineering Student

Responsibilities:	Code review, help and verify documentation work
Contact information:	advelastegui1@espe.edu.ec
Approval:	Yes

Nombre:	Fernando Paredes
Rol:	Developer, verifier
Categoría Profesional:	Software Engineering Student
Responsabilidades:	Code review, help and verify documentation work
Contact information:	fpparedes2@espe.edu.ec
Approval:	Yes

1.4. Definitions, acronyms and abbreviations

Concept	Definition
System Administrator	Person in charge of orders.

1.5. References

References	Title	Route	Date	Author
1	Standard IEEE 830	PDF	2008	IEEE
2	Clean Code	PDF	2008	Robert C. Martin Series

1.6. Summary

This document is divided into three sections.

In the first section, an introduction to this document is made and a vision of the functional and non-functional requirements of the software, the scope, as well as a description of each of the people involved in the development and creation of the software.

In the second section, a general description of the software will be made, in order to present the main functions that it will have to perform, the restrictions, its characteristics, factors, and the dependencies that affect the software development procedure.

And in the third section of this document, all the functional and non-functional requirements that the system must have are defined in detail.

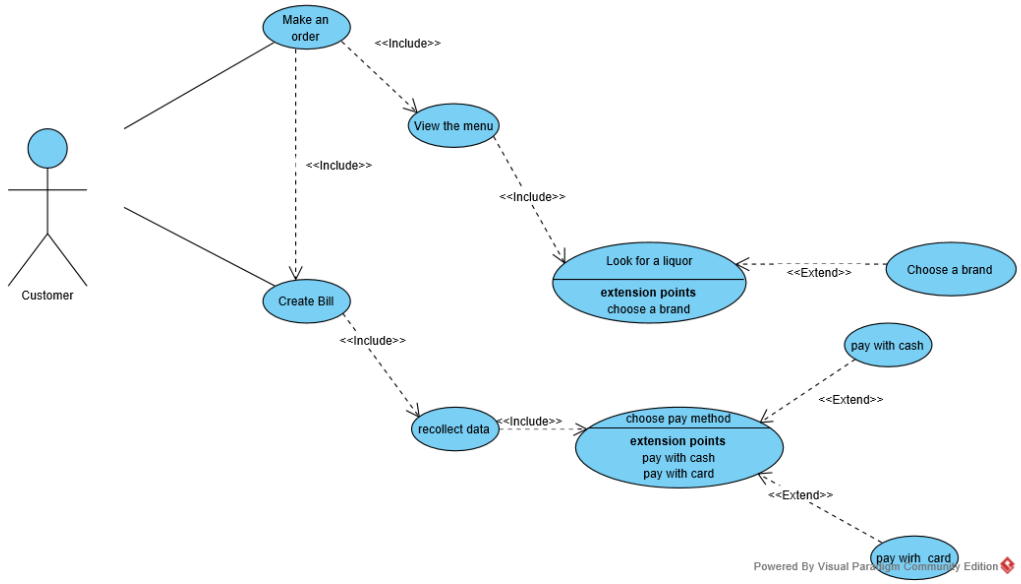
2. General Description

2.1. Product Perspective

"Liquor Store Manager" is a software which focuses on the sale of liquors, snacks and combos or promotions, to people over 18 who want to buy at home faster and easier. The respective menu will specify the type, brand, size and price, based on this the consumer will be able to create an order based on the stock that the local has. You can also add snacks such as french fries, peanuts and chewing gum. The software is also included with a combos section in which specific drinks and snacks will be included where there will be a decrease in the price. After placing the order, the consumer will choose their method of payment by card or cash. Next you will have to fill out an Electronic Invoice in which you will put your name, email address, ID and age. When filling in the pre-established data, the total price will be

displayed and an option will appear where the program will request an approval in which the order will have to be confirmed or rejected. After confirming the order the consumer would have completed his order.

2.2. Product functionality



2.3. User characteristics

User Type	User
Academic training	Basic Education
Habilities	Program management
Activities	Manage beverage code, create order, record data for electronic invoice

User Type	System Administrator
Academic training	Basic Education
Habilities	Program management
Activities	Review Order, Review Electronic Invoice, Verify Data, Verify order location

2.4. Restrictions

• The software must be developed in the Java Netbeans programming language.

• The information of the Electronic Invoice will be stored in an ArrayList.

• The software will be consumer friendly giving various indications to be simple when using it.

• The program should be as clear as possible and should not be flawed when compiling.

• The program can only be used on a desktop or laptop computer.

• The program must have a simple design and implementation, easy to manage and compile.

• After having made the Electronic Invoice the program will ask for a confirmation of your order.

2.5. Assumptions and dependencies

• At the moment the program will only work through the Netbeans console.

• The user has the basic knowledge to manipulate a desktop or laptop computer.

• The requirements described in the document are functional for the execution of the software.

• A correct execution and management of the program by the user is requested.

2.6. Evolución previsible del sistema

In the next software updates, a more user-friendly and specific graphical interface will be implemented, as well as new types of files where the program information will be saved.

3. Specific Requirements

3.1. Functional Requirements

Liquor Store Automation

1. The program must allow entry the orders

   The entry is made through the orders that the user will request

   The order will take the data of drink, snack or in turn combo

2. The options that were chosen in the order should be showed on the screen

   User data entry

   The entry is made by keyboard

   User data will help fill out the invoice

3. The program must provide the cost of every product added in the order

4. The program must confirm the orden before pay for the bevergaes, snacks or combos.

5. Create a bill in which the order data will be placed, and customer

6. The registration of the new customer must be seen on the screen, which will be added later to the invoice.

3.2. Non-functional Requirements

1. The application must allow the user to interact with the order entry and personal data entry interface for the bill.

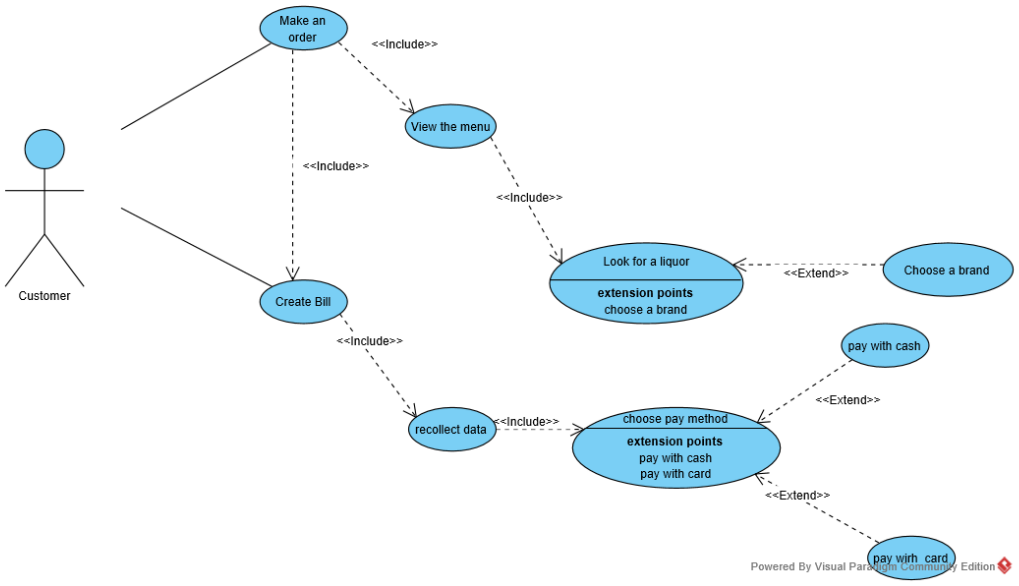
2. The program must allow the user to enter the client's personal data when placing the order.

3. The program must provide an understandable invoice with data entered by the user

4. The program must have a running time of no more than 5 seconds.

5. The program must show the menus that are in the system

4. Use Case Diagrams



5. Specification Use Cases

Identifier	RF1
Name	Make the order
Description	The user must make a selection of a beverage and some snacks
Actors	User
Preconditions	Have money
Postconditions	The user will be in the menu choosing what to order
Normal flow of events	
1. Open the system. 2. View the menu. 3. Choose the products you want to order. 4. Make the order.	
Alternate flows and exceptions	
A. Enter negative numbers 1. The program should show an error message	
B. Enter a char 1. The program should show an error message	

Identifier	RF2
Name	Show order
Description	The user will be able to visualize the brand, price, size of the drinks, and the quantity of snacks.

Actors	User
Preconditions	Have money
Postconditions	The user has the prices of his order
Normal flow of events	
1. View the menu 2. Select order. 3. View prices.	
Alternate flows and exceptions	
A. Enter negative numbers 1. The program should show an error message	
B. Enter a char 1. The program should show an error message	

Identifier	RF3
Name	Provide Products
Description	The user will be able to visualize the price of the drinks, and snacks.
Actors	User
Preconditions	Have money
Postconditions	The user has the prices of his order
Normal flow of events	
1. Select order. 2. View product.	
Alternate flows and exceptions	
A. Enter negative numbers 1 The program should show an error message	
B. Enter a char 1. The program should show an error message	

Identifier	RF4
Name	Confirm order
Description	The user must press 1 if he wants to confirm and 0 if he wants to cancel the order.
Actors	User
Preconditions	Have money, Create an order
Postconditions	
Normal flow of events	

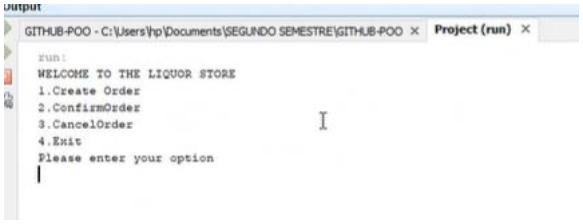
1. Select Products. 2. Show Products. 3. Show Prices. 4. Confirm Order or Cancel Order.
Alternate flows and exceptions
A. Enter negative numbers 1. The program should show an error message
B. Enter a char 1. The program should show an error message

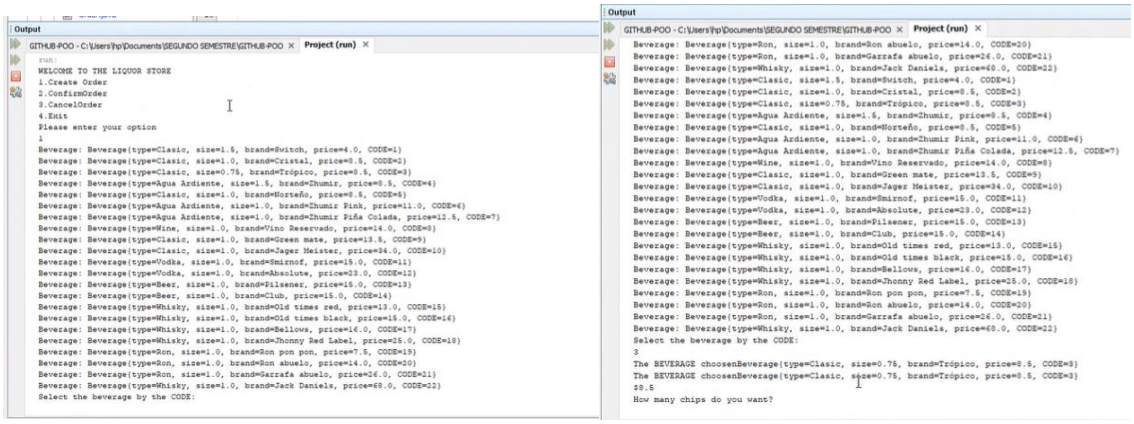
Identifier	RF5
Name	Enter to the first menu
Description	The user enter to the program to make an order
Actors	User
Preconditions	Have money, Create an order
Postconditions	
Normal flow of events	
5. Open the program. 6. Show the menú . 7. Select an option. 8. Enter to the order menu.	
Alternate flows and exceptions	
C. Enter negative numbers 2. The program should show an error message	
D. Enter a char 2. The program should show an error message	

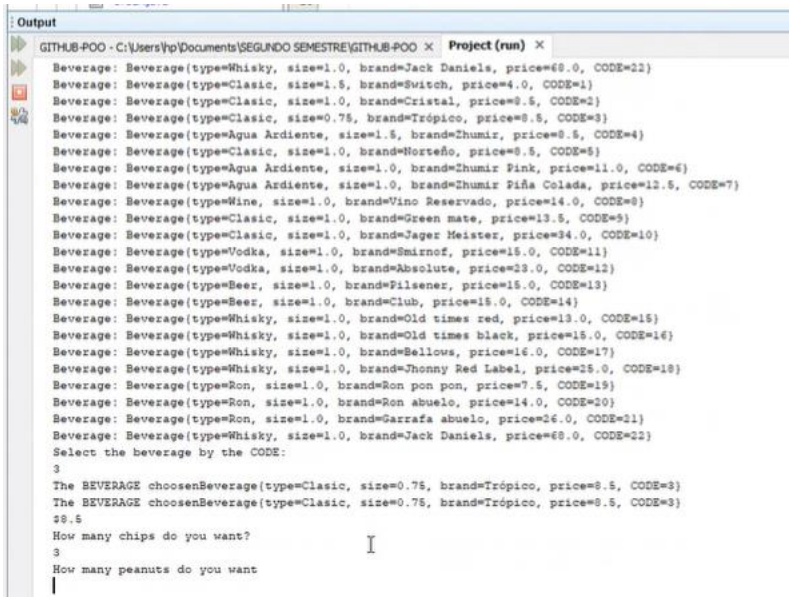
Identifier	RF6
Name	Enter the customer data
Description	The user must save the data of the clients
Actors	User
Preconditions	
Postconditions	Show the data on the bill
Normal flow of events	
9. Enter to the program. 10. Confirm to add the new client 11. Select the option create a new client. 12. Enter the data of the client	
Alternate flows and exceptions	
E. Enter negative numbers 3. The program should show an error message	

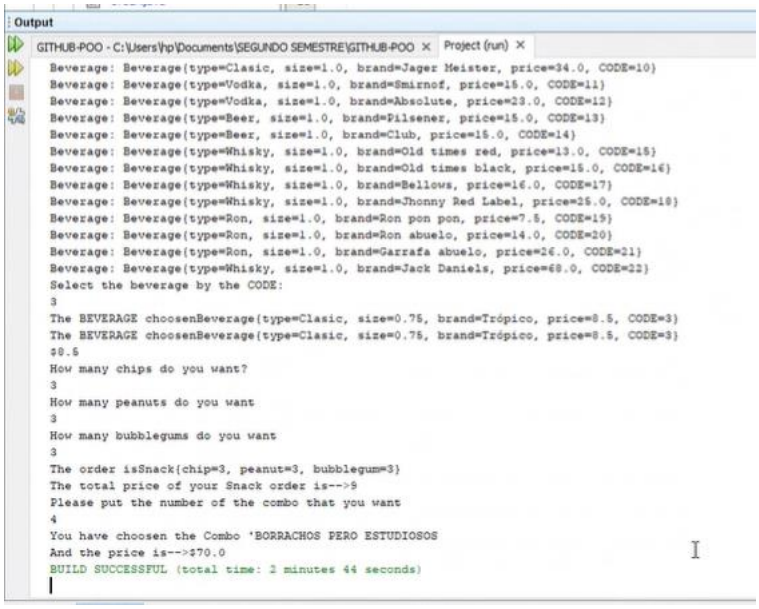
F. Enter a char
3. The program should show an error message

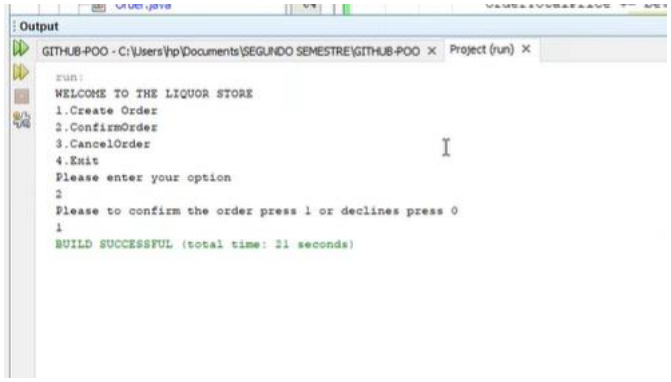
6. Specification Use Cases

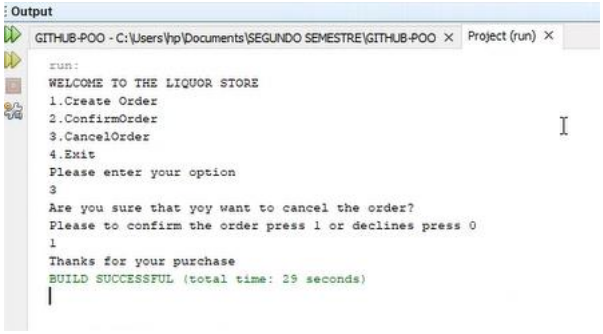


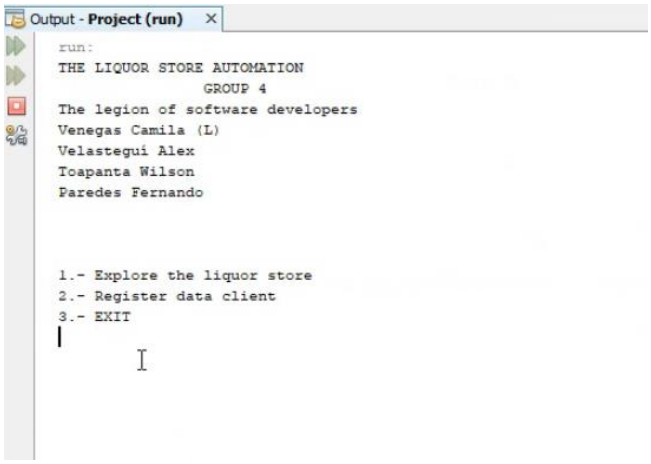


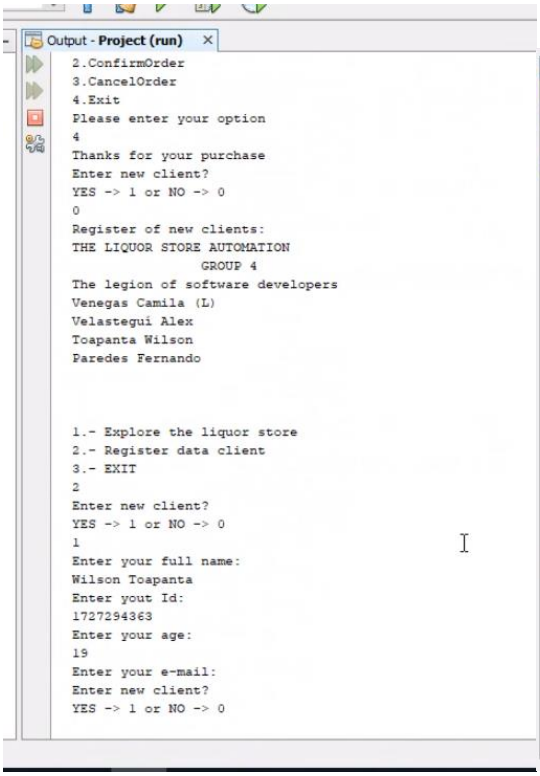


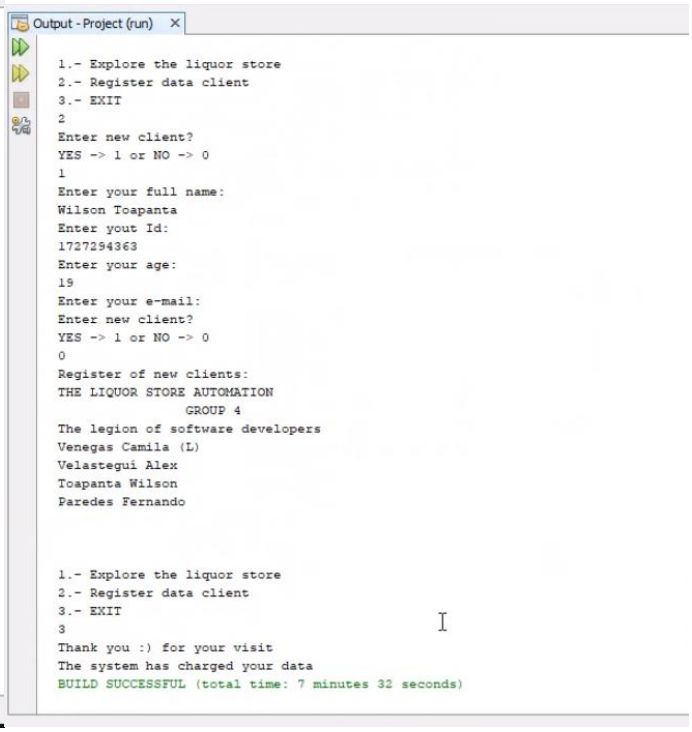

Output
GITHUB-POO - C:\Users\hp\Documents\SEGUNDO SEMESTRE\GITHUB-POO
Project (run)
Beverage: Beverage{type=Clasic, size=1.0, brand=Jager Meister, price=34.0, CODE=10}
Beverage: Beverage{type=Vodka, size=1.0, brand=Smirnof, price=15.0, CODE=11}
Beverage: Beverage{type=Vodka, size=1.0, brand=Absolute, price=23.0, CODE=12}
Beverage: Beverage{type=Beer, size=1.0, brand=Pilsener, price=15.0, CODE=13}
Beverage: Beverage{type=Beer, size=1.0, brand=Club, price=15.0, CODE=14}
Beverage: Beverage{type=Whisky, size=1.0, brand=Old times red, price=13.0, CODE=15}
Beverage: Beverage{type=Whisky, size=1.0, brand=Old times black, price=15.0, CODE=16}
Beverage: Beverage{type=Whisky, size=1.0, brand=Bellows, price=16.0, CODE=17}
Beverage: Beverage{type=Whisky, size=1.0, brand=Jhonny Red Label, price=25.0, CODE=18}
Beverage: Beverage{type=Ron, size=1.0, brand=Ron pon pon, price=7.5, CODE=19}
Beverage: Beverage{type=Ron, size=1.0, brand=Ron abuelo, price=14.0, CODE=20}
Beverage: Beverage{type=Ron, size=1.0, brand=Garrafa abuelo, price=26.0, CODE=21}
Beverage: Beverage{type=Whisky, size=1.0, brand=Jack Daniels, price=68.0, CODE=22}
Select the beverage by the CODE:
3
The BEVERAGE choosenBeverage{type=Clasic, size=0.75, brand=Trópico, price=8.5, CODE=3}
The BEVERAGE choosenBeverage{type=Clasic, size=0.75, brand=Trópico, price=8.5, CODE=3}
$8.5
How many chips do you want?
3
How many peanuts do you want
3
How many bubblegums do you want
3
The order isSnack{chip=3, peanut=3, bubblegum=3}
The total price of your Snack order is-->9
Please put the number of the combo that you want
4
You have choosen the Combo 'BORRACHOS PERO ESTUDIOSOS
And the price is-->$70.0
BUILD SUCCESSFUL (total time: 2 minutes 44 seconds)


Output
GITHUB-POO - C:\Users\hp\Documents\SEGUNDO SEMESTRE\GITHUB-POO
Project (run)
run:
WELCOME TO THE LIQUOR STORE
1.Create Order
2.ConfirmOrder
3.CancelOrder
4.Exit
Please enter your option
2
Please to confirm the order press 1 or declines press 0
1
BUILD SUCCESSFUL (total time: 21 seconds)


Output
GITHUB-POO - C:\Users\hp\Documents\SEGUNDO SEMESTRE\GITHUB-POO
Project (run)
run:
WELCOME TO THE LIQUOR STORE
1.Create Order
2.ConfirmOrder
3.CancelOrder
4.Exit
Please enter your option
3
Are you sure that yoy want to cancel the order?
Please to confirm the order press 1 or declines press 0
1
Thanks for your purchase
BUILD SUCCESSFUL (total time: 29 seconds)


Output - Project (run)
run:
THE LIQUOR STORE AUTOMATION
GROUP 4
The legion of software developers
Venegas Camila (L)
Velastegui Alex
Toapanta Wilson
Paredes Fernando
1.- Explore the liquor store
2.- Register data client
3.- EXIT


Output - Project (run)
2.ConfirmOrder
3.CancelOrder
4.Exit
Please enter your option
4
Thanks for your purchase
Enter new client?
YES -> 1 or NO -> 0
0
Register of new clients:
THE LIQUOR STORE AUTOMATION
GROUP 4
The legion of software developers
Venegas Camila (L)
Velastegui Alex
Toapanta Wilson
Paredes Fernando
1.- Explore the liquor store
2.- Register data client
3.- EXIT
2
Enter new client?
YES -> 1 or NO -> 0
1
Enter your full name:
Wilson Toapanta
Enter yout Id:
1727294363
Enter your age:
19
Enter your e-mail:
Enter new client?
YES -> 1 or NO -> 0


Output - Project (run)
1.- Explore the liquor store
2.- Register data client
3.- EXIT
2
Enter new client?
YES -> 1 or NO -> 0
1
Enter your full name:
Wilson Toapanta
Enter yout Id:
1727294363
Enter your age:
19
Enter your e-mail:
Enter new client?
YES -> 1 or NO -> 0
0
Register of new clients:
THE LIQUOR STORE AUTOMATION
GROUP 4
The legion of software developers
Venegas Camila (L)
Velastegui Alex
Toapanta Wilson
Paredes Fernando
1.- Explore the liquor store
2.- Register data client
3.- EXIT
3
Thank you :) for your visit
The system has charged your data
BUILD SUCCESSFUL (total time: 7 minutes 32 seconds)