Project title	Internet Café Management
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Group	30424

1. Task Description

Here you shall describe in detail what the application must do, and how the user interacts with the application. A sketch of the GUI should also be presented. Should be about 3-4 pages. If group project then also task division should be included here.

This application has the role to ease the managing of the net café. The application will:

- Manage the products in the store (sell or supply products)
- Manage the funds of the NetCafe.
- Search and Register Customers in the list of the NetCafe,
- Make reservations based on the ID of the customer, Date, Start Time and End Time And by clicking on the stations which are to reserved.

There are 2 main panels to work with: the "Store" and the "Manager" which can be selected by pressing on the respective button from the ones on top. Also in the middle there is a TextAre to show the current Balance of the NetCafe.

The Store

It is the first panel of the Application. There are 2 input texts: ID and QUANTITY and also 2 buttons: BUY and SELL. Below them there is table with all the products that we have in our shop like: the id of the products, name, quantity, buy price (from supplier) and sell price (the price we sell the product to customers).

The Manager

This is the panel responsible for the managing of the customers and reservations. There are 3 panels (sections) managed in this panel: *The Search Customer*, the *Register Customer* and the *Make Reservation*.

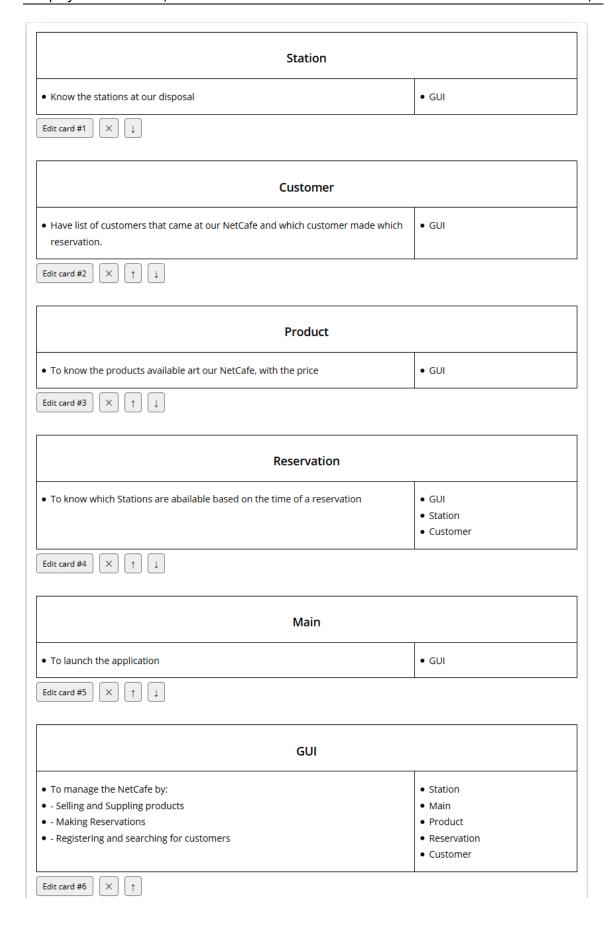
The Search Customer button on the left will open a panel where the Manager will have to insert either the email to search by or the ID to search by and which will provide the data for the given Customer. The found ID will be used to register the Customer for the reservation he is about to make.

The Register Customer button will open the panel where the user has to insert the First Name, Last Name and Email of the Customer, which will insert the Customer into the List of Customers. If in the List there already exists a customer with the given Mail, a message will be displayed and a new mail will have to be used to make the Registration. If the registration is done Succesfully the Customer's ID will be shown in the last box of the panel

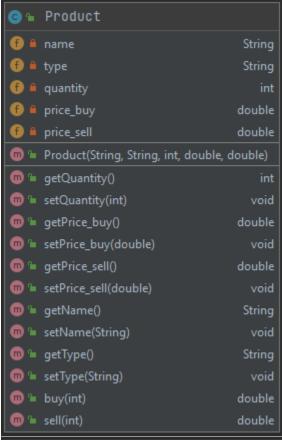
The Make Reservation Pane: here the Manager will have to insert the Date, Start Time, End Time and the Customer's ID in the Fields which will be used to make the reservation. Afther the inputs are inserted press the "Show Stations" button to see the available stations (in color green) and unavailable Stations (in color red). By pressing on a green Station the reservation for the given Station will be made for the Inputed Customer and by pressing on the "Show Stations" button again the Stations will refresh and the Selected Stations will now be colored RED which mark the unavailability of the Station.

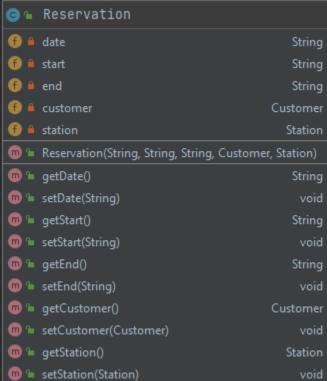
2. Class Discovery

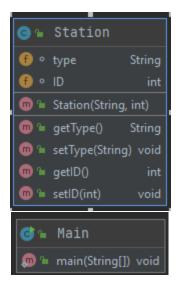
https://echeung.me/crcmaker/?share=W3sibmFtZSI6IlN0YXRpb24iLCJzdXBlcmNsYXNzZXMiOiIiLC JzdWJjbGFzc2VzIjoiIiwidHlwZSI6MSwicmVzcG9uc2liaWxpdGllcyI6WyJLbm93IHRoZSBzdGF0aW9u cvBhdCBvdXIaZGlzcG9zYWwiXSwiY29sbGFib3JhdG9vcvI6WvJHVUkiXX0sevJuYW1lIioiO3VzdG9tZX IiLCJzdXBlcmNsYXNzZXMiOiIiLCJzdWJjbGFzc2VzIjoiIiwidHlwZSI6MSwicmVzcG9uc2liaWxpdGllcyI6 WyJIYXZIIGxpc3Qgb2YgY3VzdG9tZXJzIHRoYXQgY2FtZSBhdCBvdXIgTmV0Q2FmZSBhbmQgd2hpY 2qqY3VzdG9tZXIqbWFkZSB3aGljaCByZXNlcnZhdGlvbi4iXSwiY29sbGFib3JhdG9ycyI6WyJHVUkiXX0 seyJuYW1IIjoiUHJvZHVjdCIsInN1cGVyY2xhc3NlcyI6IiIsInN1YmNsYXNzZXMiOiIiLCJ0eXBIIjoxLCJyZ XNwb25zaWJpbGl0aWVzIjpbIlRvIGtub3cqdGhlIHByb2R1Y3RzIGF2YWlsYWJsZSBhcnOqb3VyIE5ld ENhZmUsIHdpdGggdGhlIHByaWNlICJdLCJjb2xsYWJvcmF0b3JzIjpbIkdVSSJdfSx7Im5hbWUiOiJSZ XNlcnZhdGlvbiIsInN1cGVyY2xhc3NlcyI6IiIsInN1YmNsYXNzZXMiOiIiLCJ0eXBlIjoxLCJyZXNwb25za WJpbGl0aWVzIjpbIlRvIGtub3cgd2hpY2gqU3RhdGlvbnMqYXJlIGFiYWlsYWJsZSBiYXNIZCBvbiB0aGU qdGltZSBvZiBhIHJlc2VydmF0aW9uIl0sImNvbGxhYm9yYXRvcnMiOlsiR1VJIiwiU3RhdGlvbiIsIkN1c3 RvbWVyIl19LHsibmFtZSI6Ik1haW4iLCJzdXBlcmNsYXNzZXMiOiIiLCJzdWJjbGFzc2VzIjoiIiwidHlwZSI 6MSwicmVzcG9uc2liaWxpdGllcyI6WyJUbyBsYXVuY2qqdGhlIGFwcGxpY2F0aW9uIl0sImNvbGxhYm 9yYXRvcnMiOlsiR1VJIl19LHsibmFtZSI6IkdVSSIsInN1cGVyY2xhc3NlcyI6IiIsInN1YmNsYXNzZXMiOiI iLCJ0eXBIIjoxLCJyZXNwb25zaWJpbGl0aWVzIjpbIIRvIG1hbmFnZSB0aGUgTmV0Q2FmZSBieToiLCIt IFNlbGxpbmcqYW5kIFN1cHBsaW5nIHByb2R1Y3RzIiwiLSBNYWtpbmcqUmVzZXJ2YXRpb25zIiwiLS BSZWdpc3RlcmluZyBhbmQqc2VhcmNoaW5nIGZvciBjdXN0b21lcnMiXSwiY29sbGFib3JhdG9ycyI6W yJTdGF0aW9uIiwiTWFpbiIsIlByb2R1Y3QiLCJSZXNlcnZhdGlvbiIsIkN1c3RvbWVyIl19XQ==



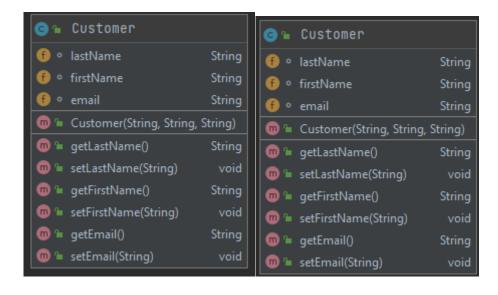
3. Class Diagram







OOP



© •	GUI	
6 a	balance	int
6	products	Product[]
6 •	customersVector	Vector <customer></customer>
6 •	reservationsVector	Vector <reservation></reservation>
6 •	nrProducts	int
6 •	biggerFont	Font
6 •	biggerFontButSmaller Fon	
6 •	biggerFontButEvenMoreSmaller For	
6 •	frame JFram	
6 •	home	JPanel
6 •	storePanel	JPanel
6 •	managerPanel	JPanel
6 •	manager	JButton
6 •	store	JButton
6 •	balField	JTextField
6 •	tableModel	DefaultTableModel
6 •	scrollTable	JTable
6 •	scrollPane	JScrollPane
6 •	id	JTextField
6 •	quantity	JTextField
6 •	buy	JButton
6 •	sell	JButton
6 •	controlPanel	JPanel
6 •	searchCustomer	JButton
6 •	registerCustomer	JButton
6 •	makeReservation	JButton
6 •	searchCustomerPanel	JPanel
6 •	register Customer Panel	JPanel
6 •	makeReservationPanel	JPanel
6 •	inputEmail	JTextField
6 •	inputID	JTextField

6 •	inputEmail	JTextField
6 •	inputID	JTextField
•	idSearch	JButton
6 •	emailSearch	JButton
6 •	outputID	JTextField
6 •	outputEmail	JTextField
6 •	outputFirstName	JTextField
6 •	outputLastName	JTextField
6 •	registerFirstName	JTextField
6 •	registerLastName	JTextField
6 •	registerEmail	JTextField
6 •	finishCustomerRegistration	JButton
6 •	registeredID	JTextField
6 •	nrRows	int
6 •	nrCols	int
6 •	stationsArray	Station[]
6 •	buttonsArray	JButton[]
6 •	stationsPanel	JPanel
6 •	pricePerHour	double
6 •	reservationDate	JTextField
6 •	reservation Time Start	JTextField
6 •	reservationTimeEnd	JTextField
6 •	reservationCustomerlD	JTextField
6 •	reservation Price Per Hour	JTextField
6 •	showStations	JButton
@ •	GUI(FileWriter)	
@	isNumeric(String)	boolean
⊕ •	initializeProducts()	void
⊕ •	initializeCustomers()	void
™	initializeTable(Product[], int)	void
™	searchByEmail(String)	int
@ •	searchByld(int)	int
@ •	checkAvailability(String, String, String,	int) boolean