Faculty of Engineering and Technology

Computer Science Department

COMP433 - Software Engineering

Group No: G6

Group Name: Alpha

Project: Postal Service: to collect & home deliver parcels/letters (online)

Name	ID	Role
Yaqout Hmaid	[redacted]	Project Manager
Anwar Zhour	[redacted]	Technical Architect
Dalia Almahdey	[redacted]	Secretary

Chapter 1: Project Planning and Management

1.4 Project management strategy: This project was accomplished in stages. Before completing any stage the team was meeting using the Zoom program, every stage is discussed and clarified , then the roles are divided among the group members to complete the specific stage by voting software process model is agile. Members communicate with each other via the Messenger Group.

1.5 Project manager report : (written by Yaqout)

Group member	Work done by her
Yaqout	• Lead in System and User requirement • Lead in EFFORT+TIME ESTIMATION • Lead in Overall Use Case Diagram • Lead in Main Activity diagram • Lead in Analysis and detailed class model • Lead in Component Diagram • Lead in Deployment diagram
Anwar	• Contribute in business description • Contribute in Actors analysis and their description • Contribute in Description of CLASSES • Contribute in Object diagram • Contribute in Design Goals • Contribute in Overall architecture diagram
Dalia	• Contribute in business description • Contribute in Actors analysis and their description • Contribute in Description of CLASSES • Contribute in Object diagram • Contribute in Design Goals • Contribute in Overall architecture diagram

Challenges faced in managing the project:

Based on the current conditions that impose electronic communication only, the team encountered some problems in effective communication and this negatively affected the completion of the project as required. We faced some problems in understanding the nature of the work, which prompted us to communicate with people working on similar projects.

My opinion on how i evaluates the success of their project :

I give a good evaluation of success to this project . The project is coherent, correct and worked on hard. We put a lot of effort in it and its turn out a successful project .

Group members report :

Written by Anwar Zhour

Anwar : My role in this project was "Technical Architect". It was a great experience for me that I got the chance to join working on this project with my teammates, on my opinion, it was a good opportunity to practice and fill my Working together helped me in .knowledge more about software engineering experiencing team work and develop my time management skills, in addition to my communication skills too.

list of the tasks: Contribute in business description
Contribute in Actors analysis and their description
Contribute in Description of CLASSES
Contribute in Object diagram
Contribute in Design Goals
Contribute in Overall architecture diagram

Written by Dalia Almahdey

Dalia: The project was not that easy although we put the requirements there was many points that we stopped at it to discuss it because it have many cases and we don't know which case is correct and appropriate for our project and also it was hard to meet with the team to do the tasks .

list of the tasks: list of the tasks: Contribute in business description
Contribute in Actors analysis and their description
Contribute in Description of CLASSES
Contribute in Object diagram
Contribute in Design Goals
Contribute in Overall architecture diagram

Chapter 2: Requirement Elicitation and Analysis/Modelling

Business description: written by Dalia and Anwar

According to the customer group we made this postal service's software that's provides many postal services To their clients like transfer letters and parcels to all over the country, clients need to have an account on the system to use those services.

They can fill a request after they sign in, they can choose the type of the transferred Objects (only a letters or parcels) , fill the details of delivering (address, deliver date and place etc.) after they send the request they got a conformation message that their request is approved , the system takes 10$ for any transferring around the country, no transfer to Outside it.

Postal carrier takes the whole information request and gets the objects from the user Address. Also users can delete edit orders from their account options menu.

System and User requirement: written by Yaqout

UR1. The user shall be able to register to a new account.

SR1.1 The system shall ask the user for his/her email and password to register .into the system

SR1.2 The system shall check the email validation by asking the user to enter a "validation code" sent to his/her email.

SR1.3 The system shall ask for the user personal information, first and last .name, address, phone number and date of birth

SR1.4 The system shall only allow the user to edit his/her personal .information

SR1.5 The system shall save all the information in the account.

UR2. User shall be able to login/logoff from his/her account

SR2.1 The system shall enable the user to login, and keep it logged in till the user closes the browser or in case the user logged out.

SR2.2 The account's header shall contain the settings option, where the user can edit anything he/she wants about their personal info.

SR2.3 The system allows the user to edit their delivery order anytime they want .

UR3. Users should be able to view a complete list of their old delivery orders through the site.

SR3.1 the system shall enable the user to see their old orders and store them from latest to newest or the opposite.

SR3.2. the system shall enable the user to clear their old delivery orders list

UR4. The user shall be able to complete his payment actions using his credit .card

SR4.1 The system shall ask the user for his/her card number, bank account and type of the card (debit and credit).

SR4.2 The system shall check whether the credit card is valid, if not؛

the system will cancel the delivering operation.

SR4.3 The system shall ask the user to enter her/his password

before confirming the payment, to make sure that the account is for

the same user.

UR5. Users should be able to view the status of delivery order they have submitted .

SR5.1 the system shall enable the user to track the state of their delivery order.

SR5.2 the system shall enable the user to know whatever its completed or not.

UR6. The system shall show the confirmation report after submitted delivery .order.

.SR4.1 The system shall enable this feature to the manager only

SR4.2 The system shall display the successful completed and uncompleted delivery order the system had during the month.

Scenario 1 written by Yaqout

Scenario : log in to system

Initial assumption: user want to log in on his account

Normal : the user log into his already existing account he wrote the username and password then logged in successfully.

Alternative : when the user try to accuses the website he couldn't log in because he forgot his password so he click on forget my password, he changed it and then logged in.

Alternative : a user already has an account on the website so he just add his email and password and logged in .

Error : when a user want to log in he forget his username and password so the system ask him to change it but he didn't accept . so he leave the website page and didn't log in

Scenario 2 written by Anwar

Initial assumption: The user creates a new account by clicking on Register.

Normal: The user registers for a new account by clicking on Register a New Account, and fill in the required information (full name, ID number, age, location, mobile number, bank account number, etc.), and make sure that all the required data are filled out, and press Register.

Alternative: when the user try to accuses the website he couldn't log in because he have no account so he register to the system, by pressing Register a New Account.

Error : When the user fills in all the data and presses the word "Register" to create an account for him, the site makes an error due to some errors in the data or forgetting some empty places

Scenario 3 written by Dalia

Initial Assumption : Customer heard that he can make request to sent email or parcel online , so he searched for that website, and he found it , Now he wants to register a new account , so he enter his username , password and another information to enter website .

Normal : The customer submits his request and the mail website receives the request for implementation later .

Alternative : The requests are sent to the mail website daily , and stored for study and verification to executed by specialized person .

Error : Can't edit Customer request and information after sent it .

EFFORT+TIME ESTIMATION written by Yaqout

UR	ESTIMATED EFFORT	ESTIMATED NO OF DEVELOPERS	TOTAL EFFORT
UR1	1pw	2	1*2= 2pw
UR2	2pw	1	2*1 =2pw
UR3	1pw	1	1*1 = 1pw
UR4	1pw	2	1*2 = 2pw
UR5	3pw	2	3*2 = 6pw
UR6	2pw	2	2*2 = 4pw
Total effort/avg	10pw	10/6=1.6 dev on avg needed	17pw
Schedule time 30%	10*1.3=13w		17*1.3= 22pw
Cost		Avg salary =300$	300*22= 6600
Profit margin (min =10% ,max=30%)		Min cost --> Max cost -->	6600*1.1= 7260 6600*1.3= 8580

Actors analysis and their description: written by Dalia and Anwar

Manager: This actor represents person in charge of managing and administering the system. He also assumes the role of supervisor in Terms of use" of the site, and has the the sense that he enforces the right to revoke clients privileges by deleting their account

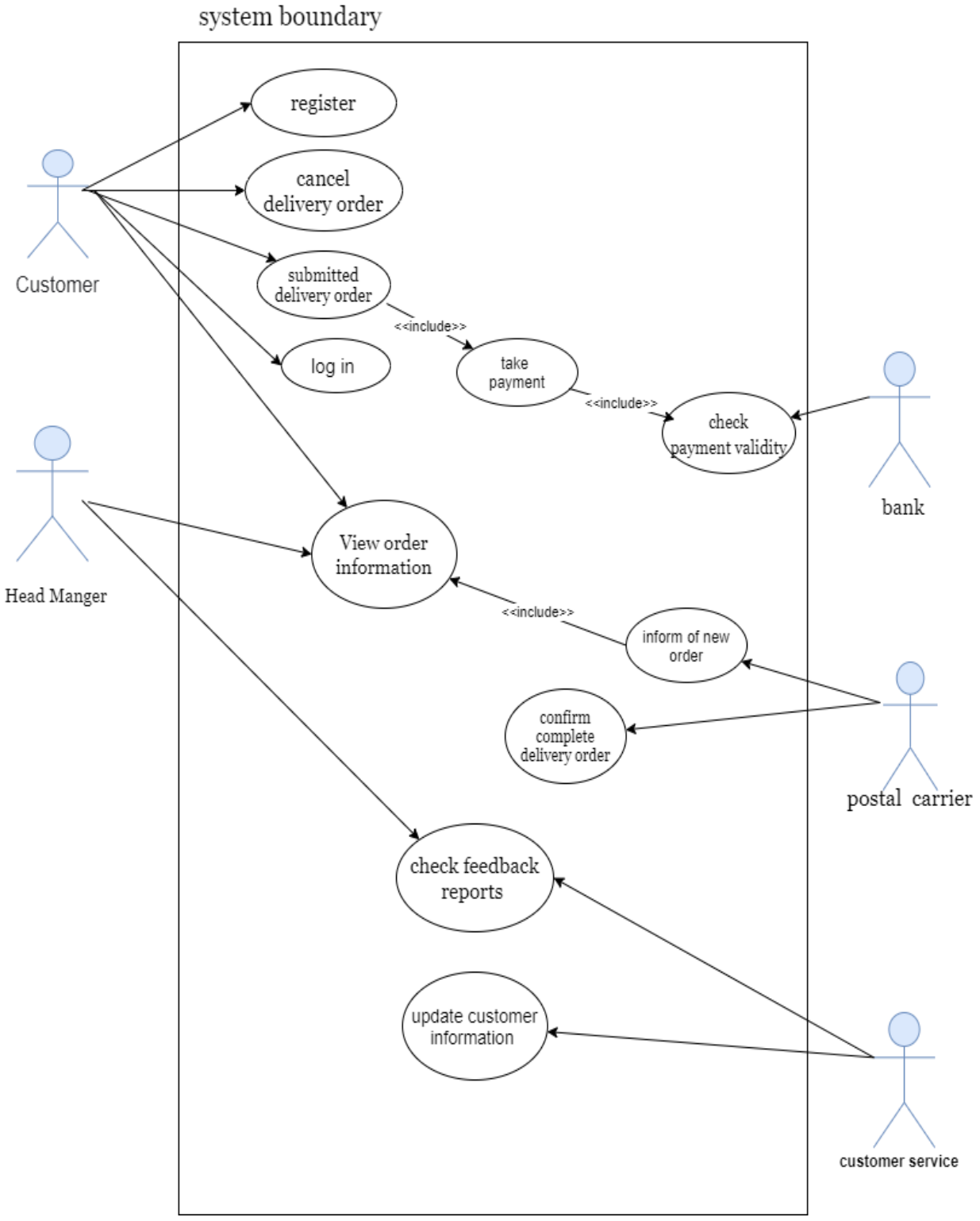
Customer: This actor represents person who want to transfer mails or packages around the country.

Postal carrier : This actor represents person who in charge to take a delivery order information and complete it.

customers service: This actor represents someone that representatives support clients by answering questions, solving problems and handling orders and have an account on system.

Bank: The supplier's bank The bank gets involved to debit the client's account and credit the supplier's account during a purchase.

Overall Use Case Diagram written by Yaqout



Detailed description written by Yaqout

Name	Log in to system
Actor	customer
Description	A user log in to access the functionality of the system
Pre-conditions	System is running and user want to login
Post condition	If the use case was successful, the user is now logged into the system. If not the syste m state is unchanged.
Trigger	User requests to login
Flow of events	The use case begins when the actor types his/her name and password on the login form. Basic Flow - Login 1-The system validates the actor's password and logs him/her into the system. 2- The system displays the Main Form and the use case ends. 3- If in the basic flow the system cannot find the name or the password is invalid, an error message is displayed. The user can type in a new name or password or choose to cancel the operation, at which point the use case ends
Data	Other than user information There are no special data associated with this use case.

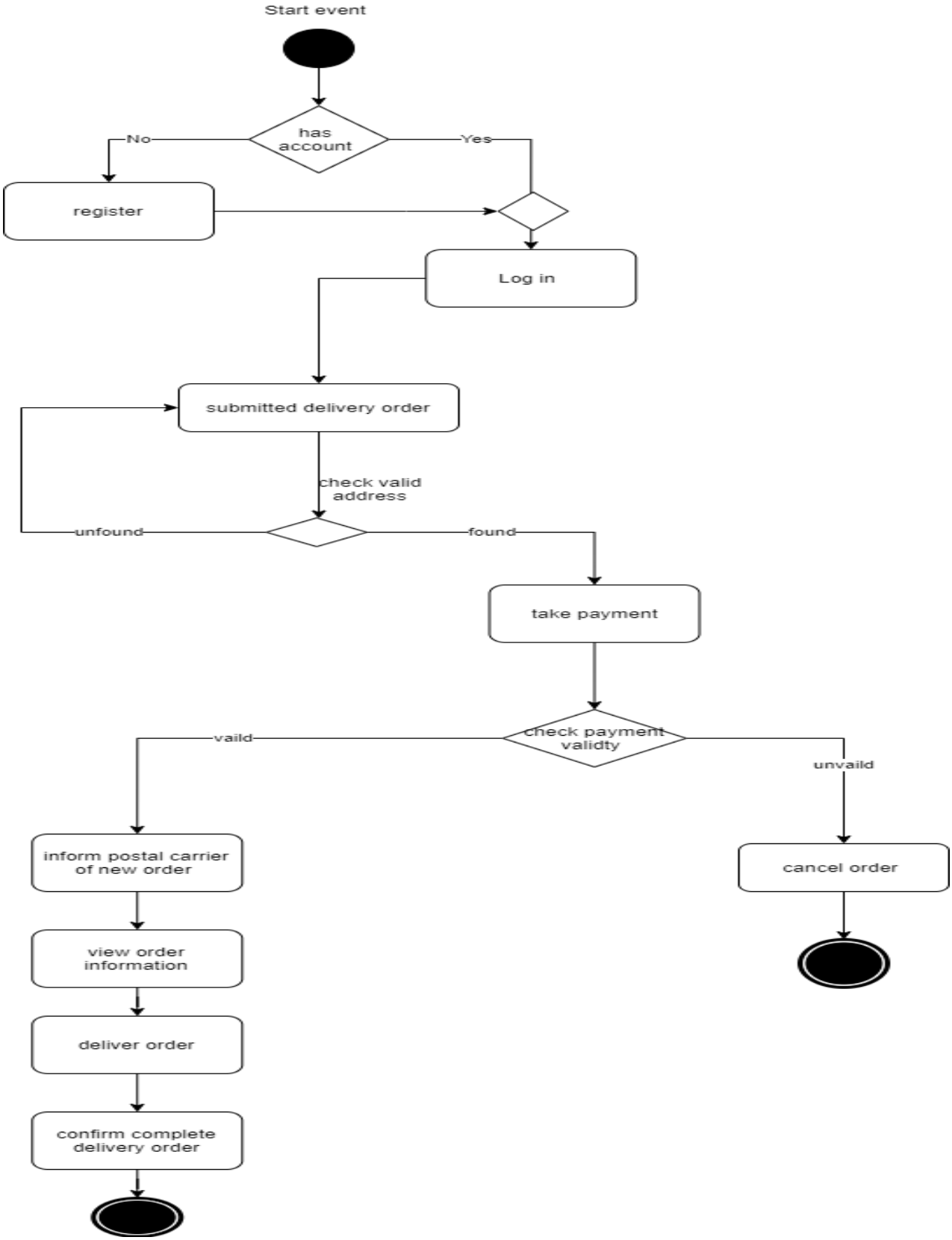
Detailed description written by Anwar

Name	Register in the system
Actor	user
Description	The user registers a new account to access the system functions
Pre-conditions	System is running and user want to register
Post condition	If the registration is successful, the user is now logged into the system. If the system state has not changed.
Trigger	User requests to register
Flow of events	The Use Case begins when the user fills out the information on the request form to create a new account **Basic flow - login** 1- The system verifies the data and registers it in the system. 2- The system displays the main form and the use case ends. **Alternative Streams** If an error appears on the system, for example a lack of data or forgetting to write some information, an error message will be displayed to rewrite it and modification the error
Data	The user information

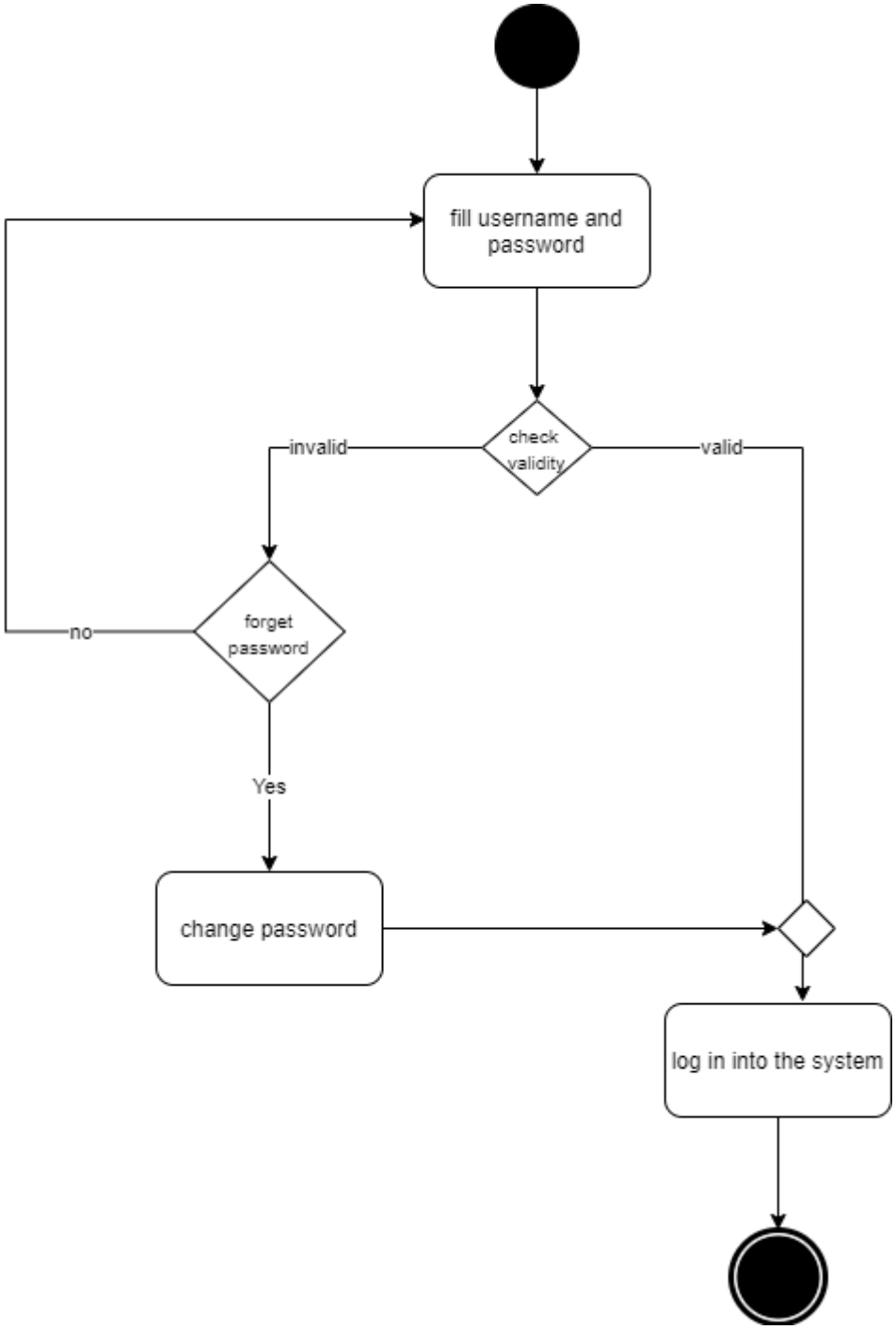
Detailed description written by Dalia

Actor	Customer
Description	The Customer should fill his request when he wants to send email or parcel online by filling his information
Pre-Conditions	The Customer shall login to the website and view the request available then fill his information
Sequence/Flow Of Events	1-Customer login 2-Customer views the request 3-Customer choose the request he wants 4-Customer fill his information 5-Apply for the request by clicking on submit 6-Choose the type of payment 7-Pay , or pay later (System reminder will remind him to pay two weeks before it's finished)
Data	Name , Email , Phone Number , Address , VisaCard /Bank Account , recipient's address , Recipient Phone Number
Stimulus/Trigger	The Customer may click request button
Post-Conditions/Response	The System stores request and customer's info in a database
Comments	No Comments

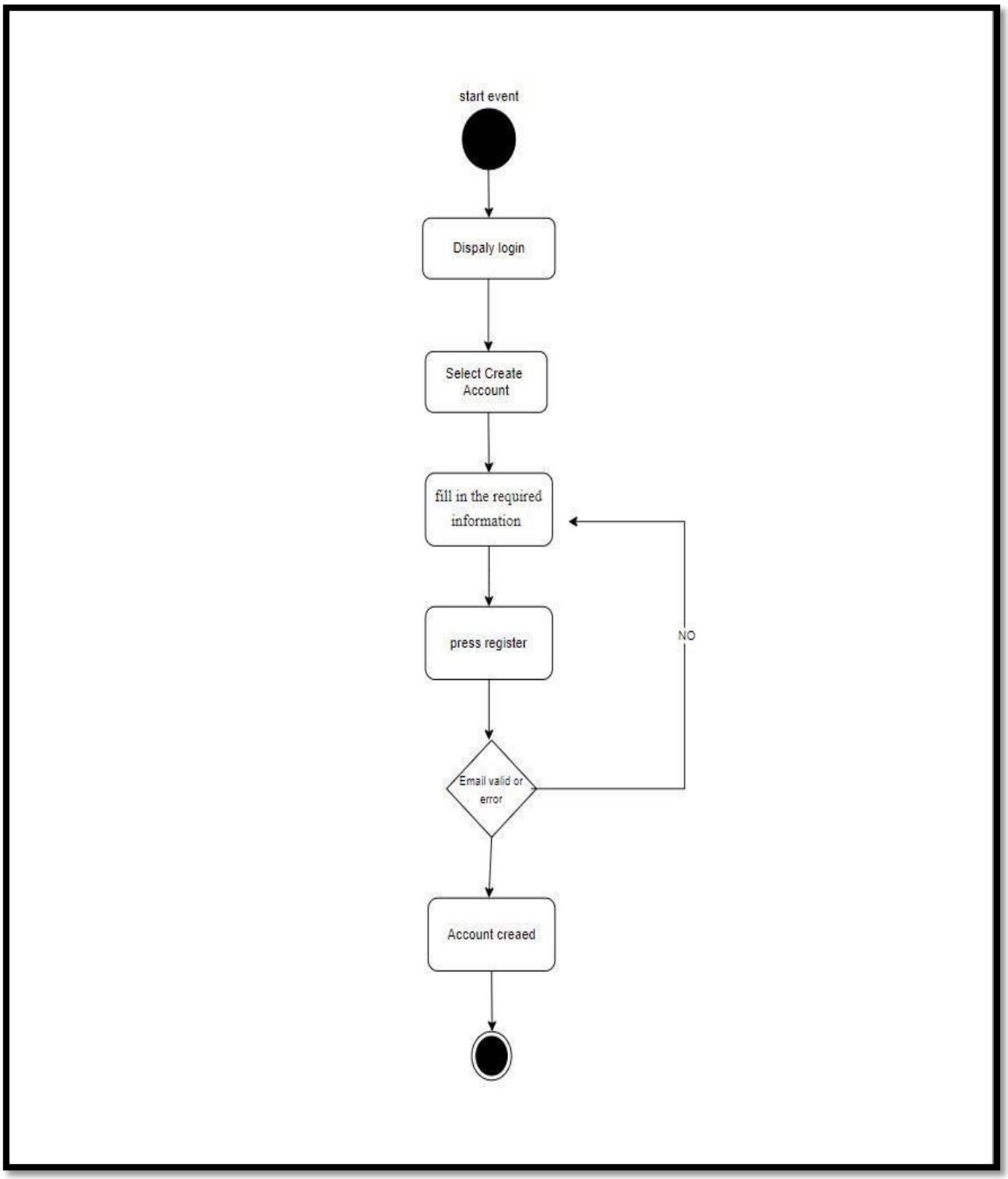
Main Activity diagram written by Yaqout



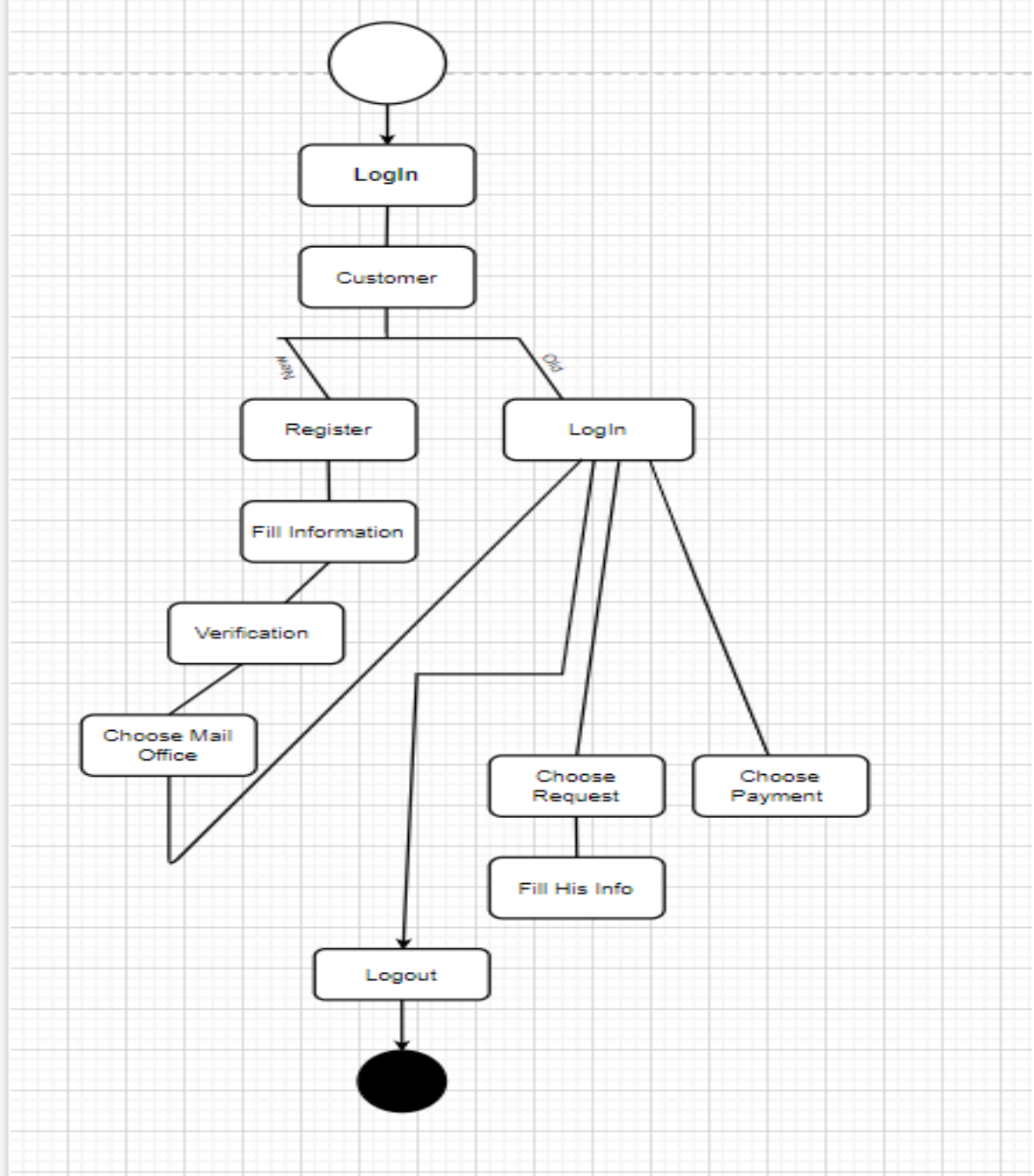
Instance Activity diagram written by Yaqout



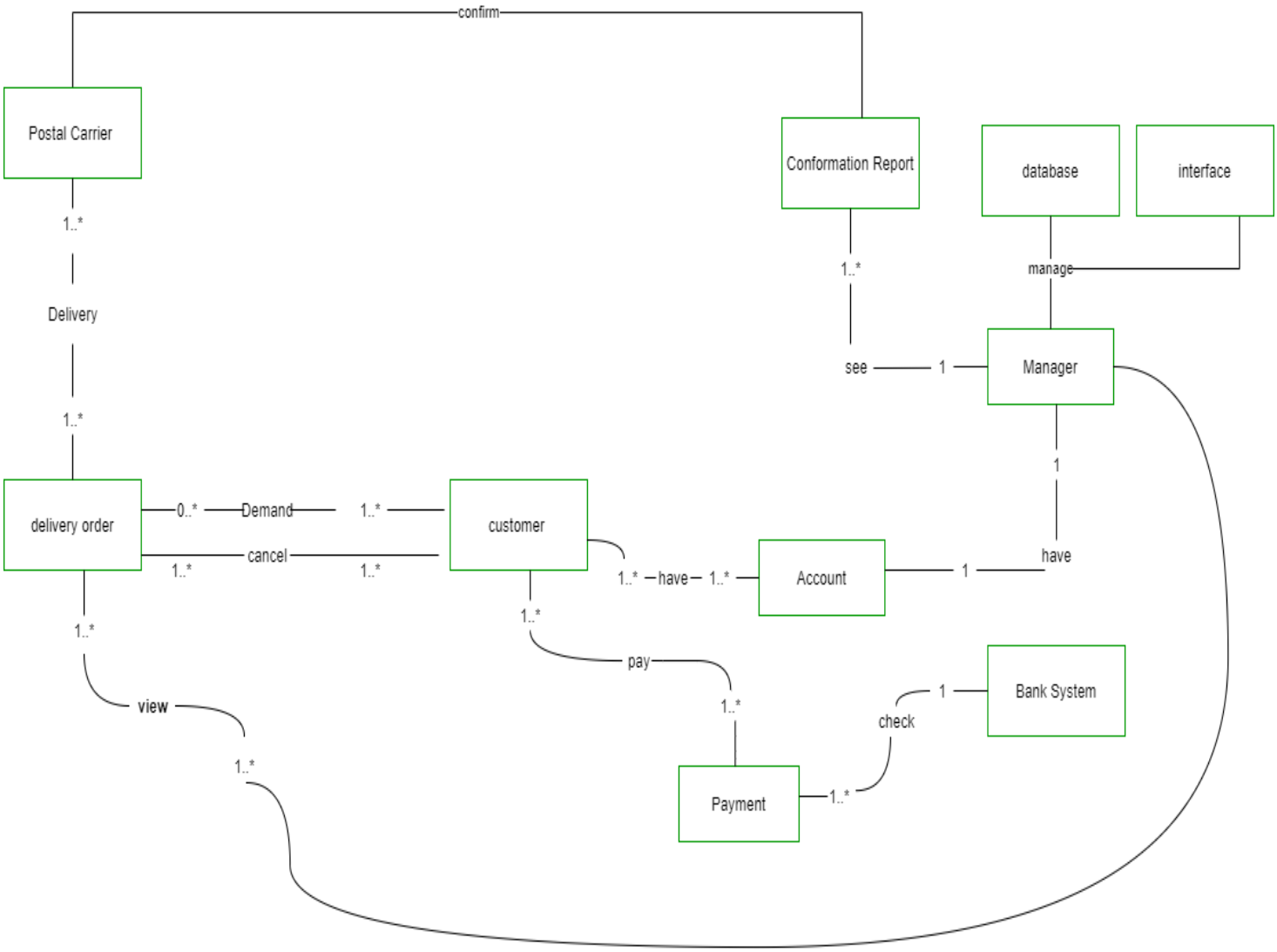
Instance Activity diagram written by Anwar



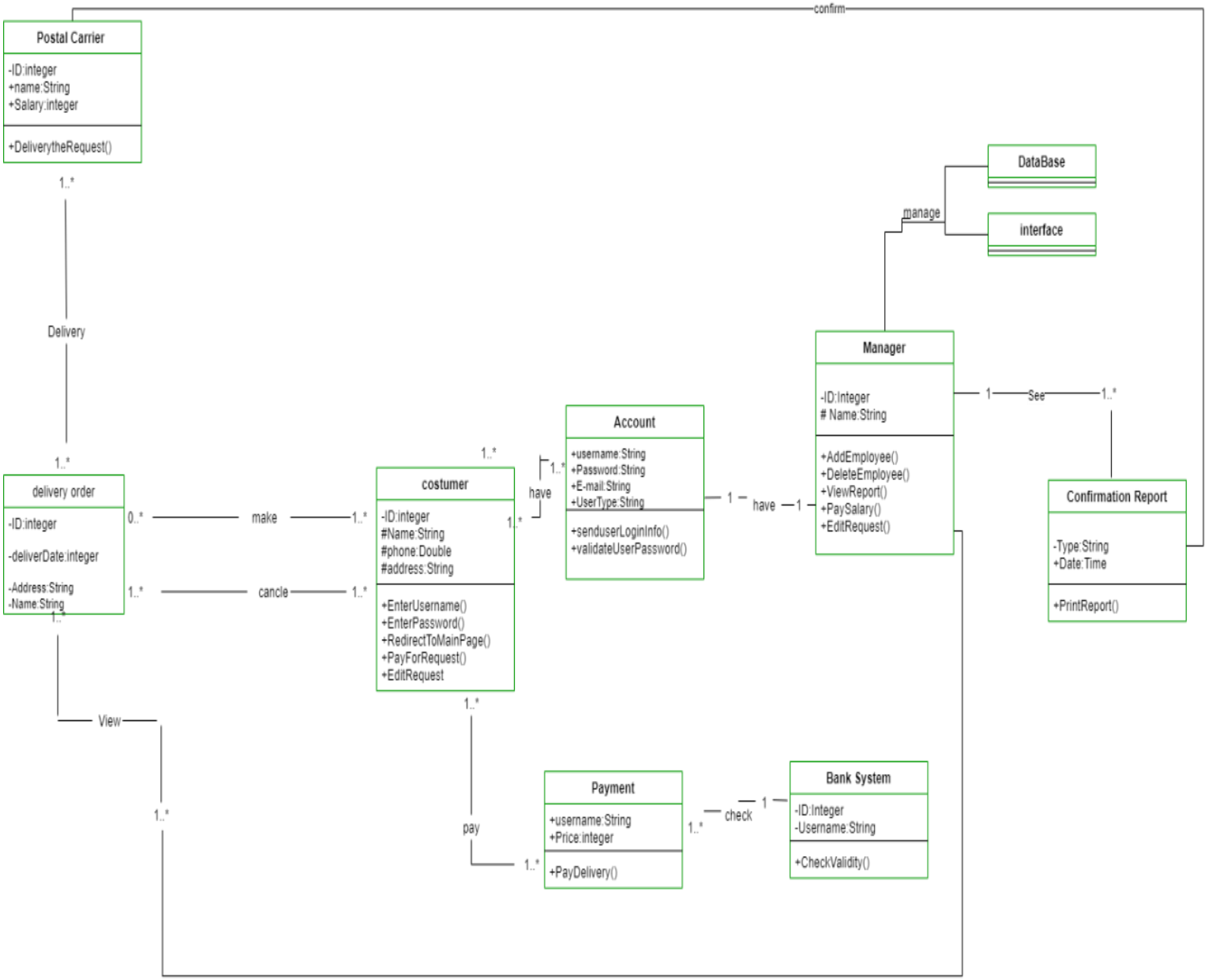
Instance Activity diagram written by Dalia



Analysis class model written by Yaqout



Detailed class model written by Yaqout



Description of CLASSES written by Dalia and Anwar

1-Manager : : This class represents a person who manage the postal branch system.

2-Customer: This class represents someone who can access the whole system with user name and password, make a delivery order

3-Postal Carrier : This class represents someone who deliver the packages and letters after he took all the information from his account on the system, also reserved details and the time of delivery.

4 - Bank System: Helps the customer to finish payment process by validating vise card for him/her.

5- Delivery Order: Contains the order id ,name, deliver date, type, and address to be delivered.

6- payment : the amount of money user need to send an order

7-confirmation report: This class represents the state of delivery order

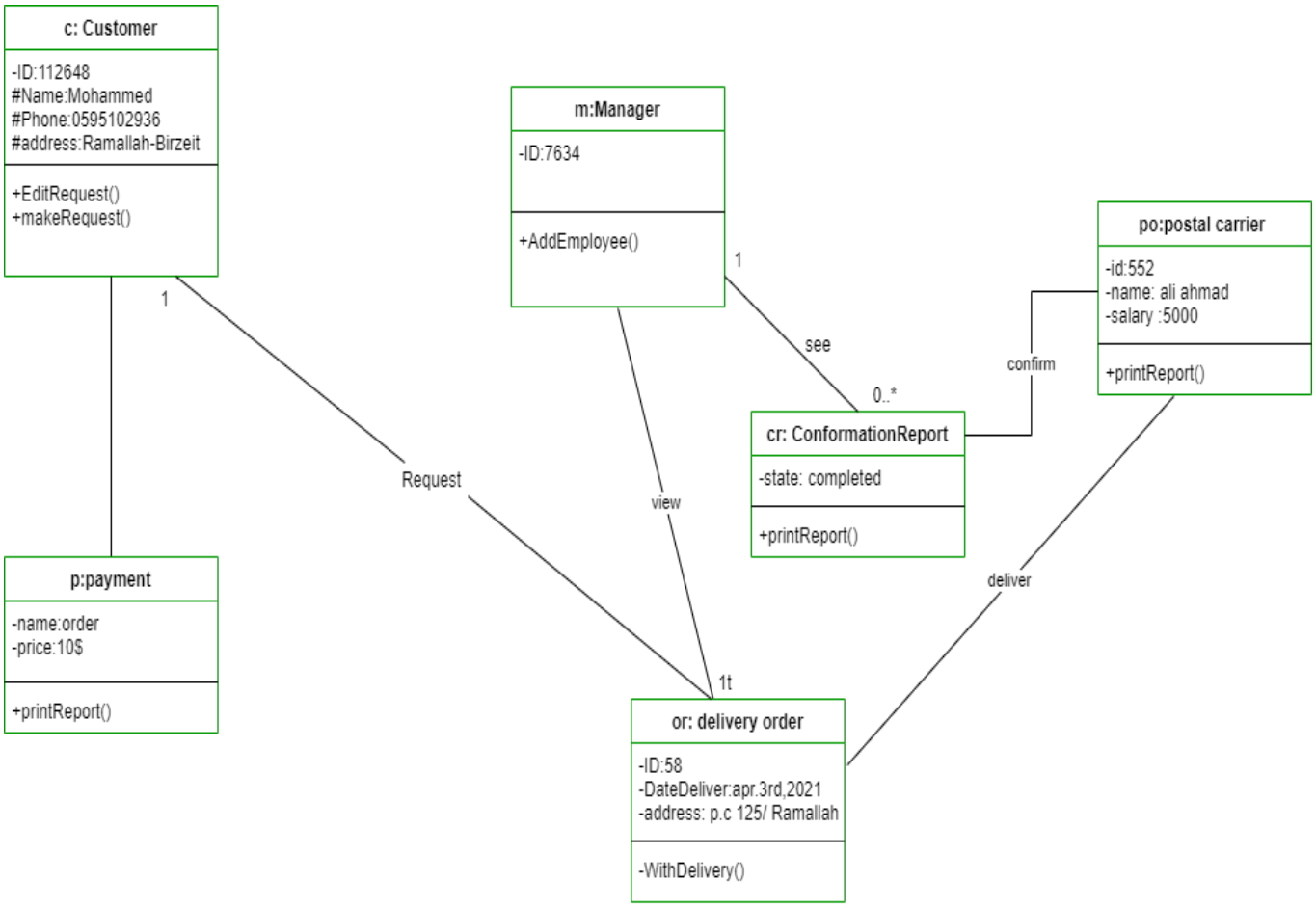
8- Account : each account have id ,user name, password , and user email, and what is the type of user and features different serves according to user type.

9-Payment : each customer should pay a specific amount of many to bank system to validate their account on the system .

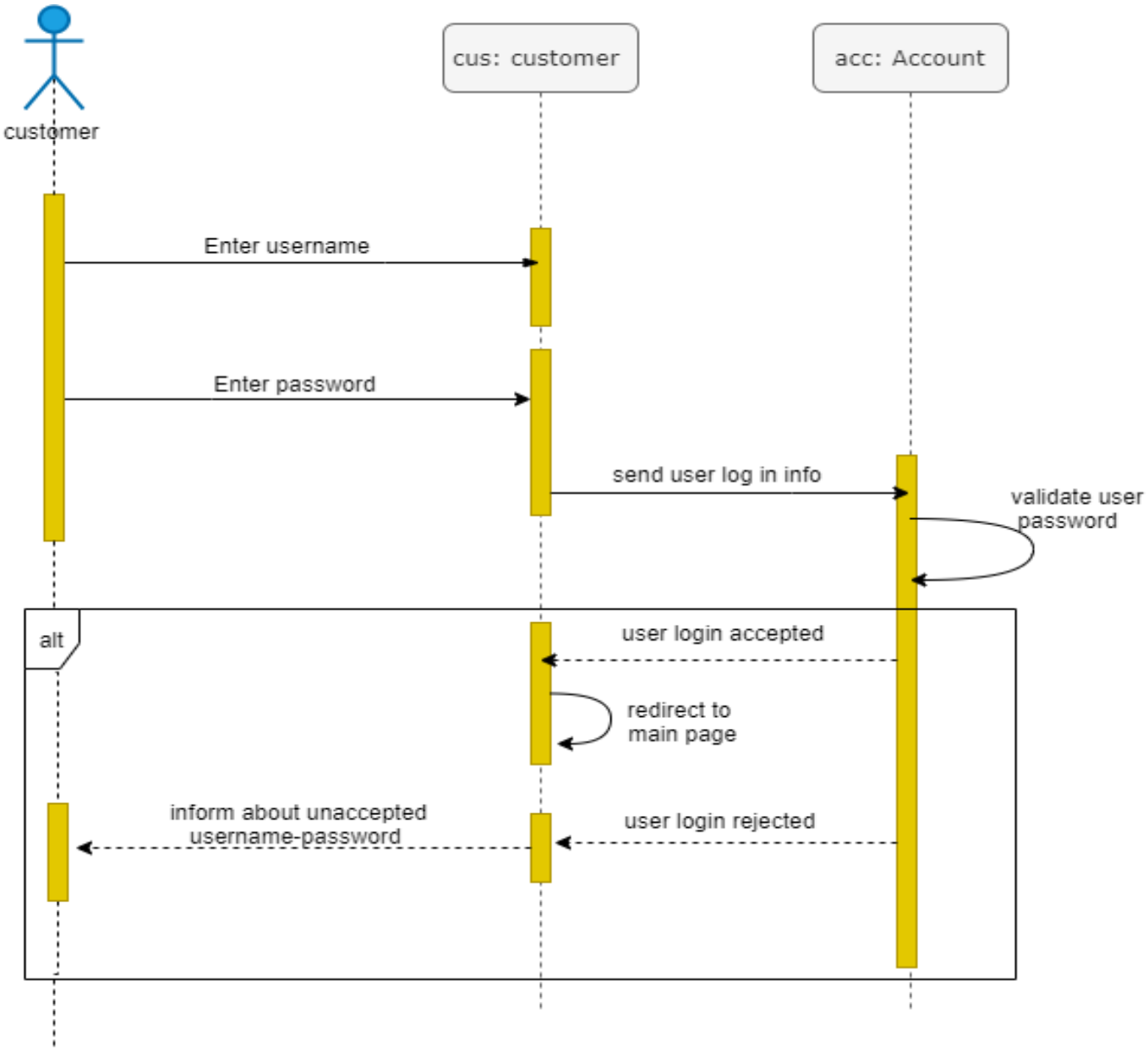
10- database : this class represent where all data about system is stored.

11- interface : this class represent the fram that appears to customer when they access the system.

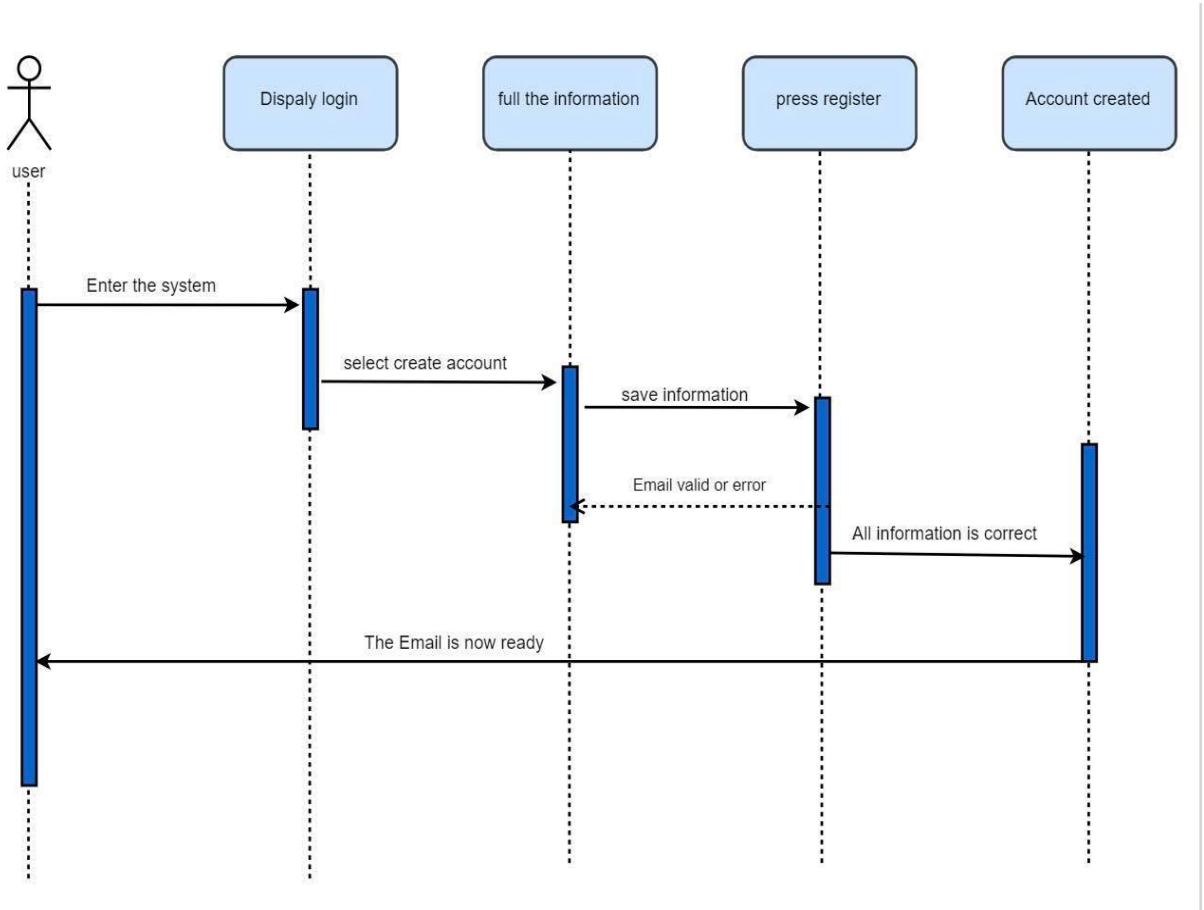
Object diagram written by Anwar and Dalia



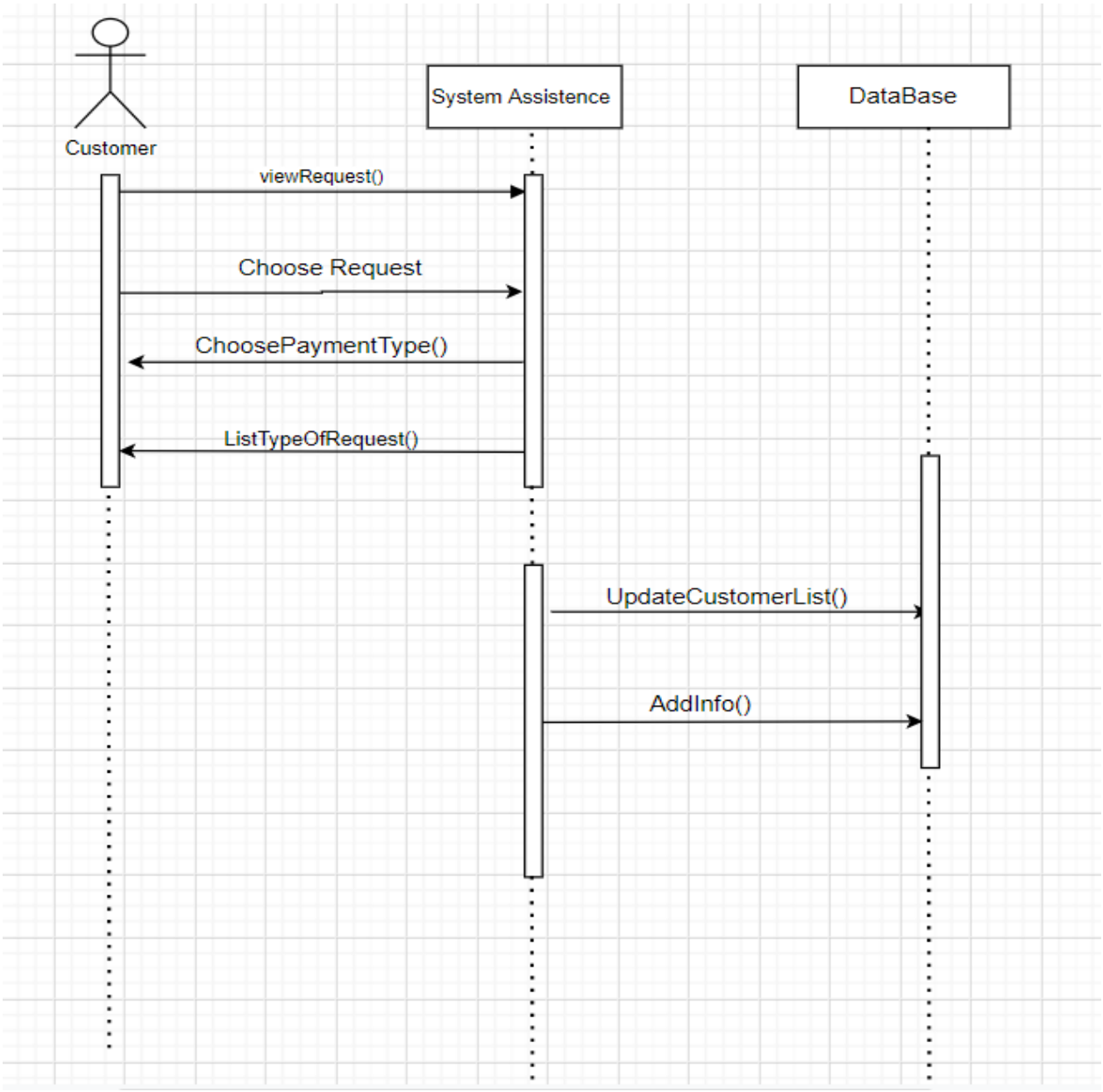
Sequence Diagram by Yaqout .



Sequence Diagram by Anwar .



Sequence Diagram **by Dalia .**



Design Goals by Dalia and Anwar .

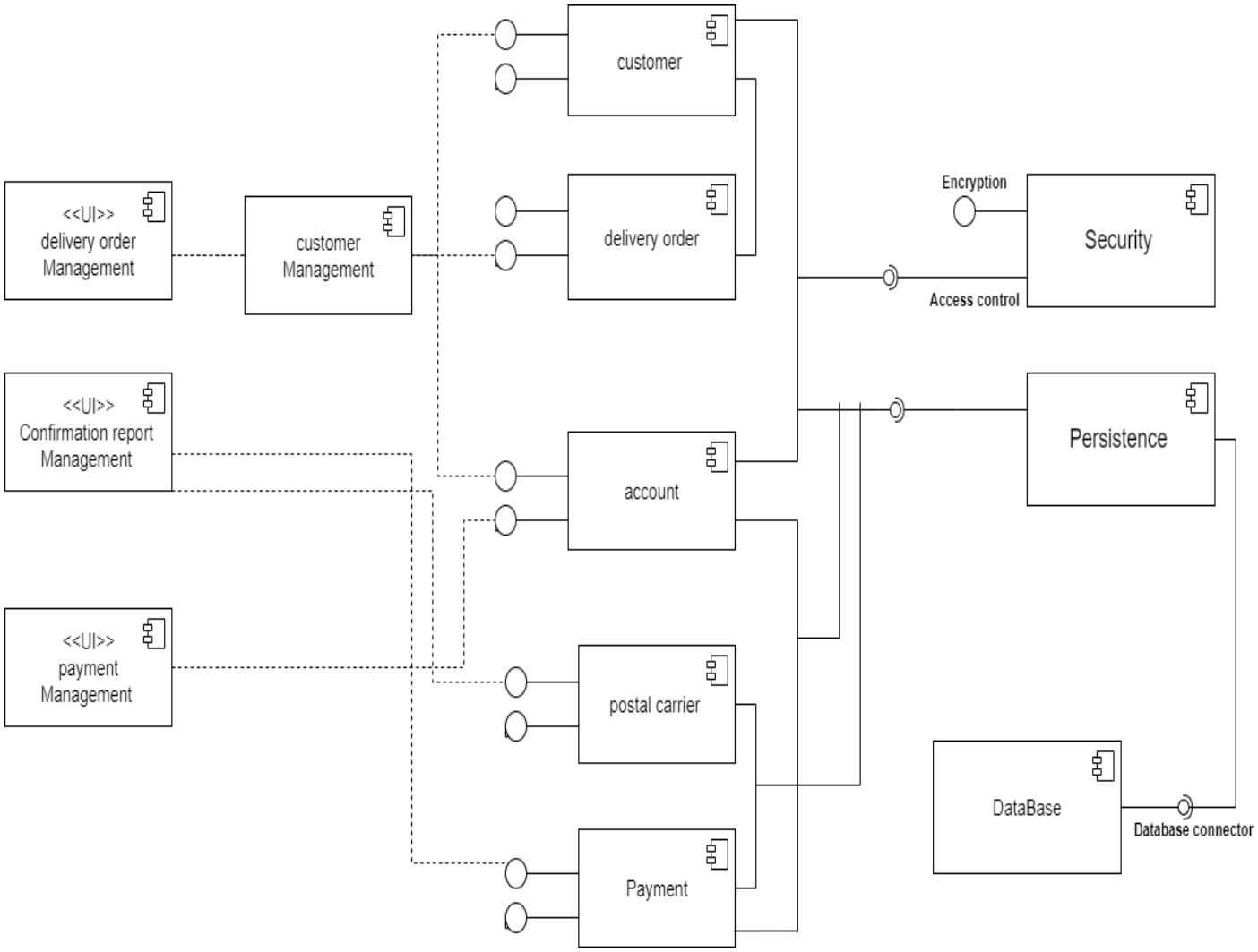
-Low Coupling : in our project you can easily make changes to the internals of component without worrying about their impact on other components in the system, and we done this step in the initial design of the project.

-High Cohesion : The elements within the module in our project are directly related to the functionality that module is meant to provide , We can easily write and test our code since the code for a module is all located together and works together.

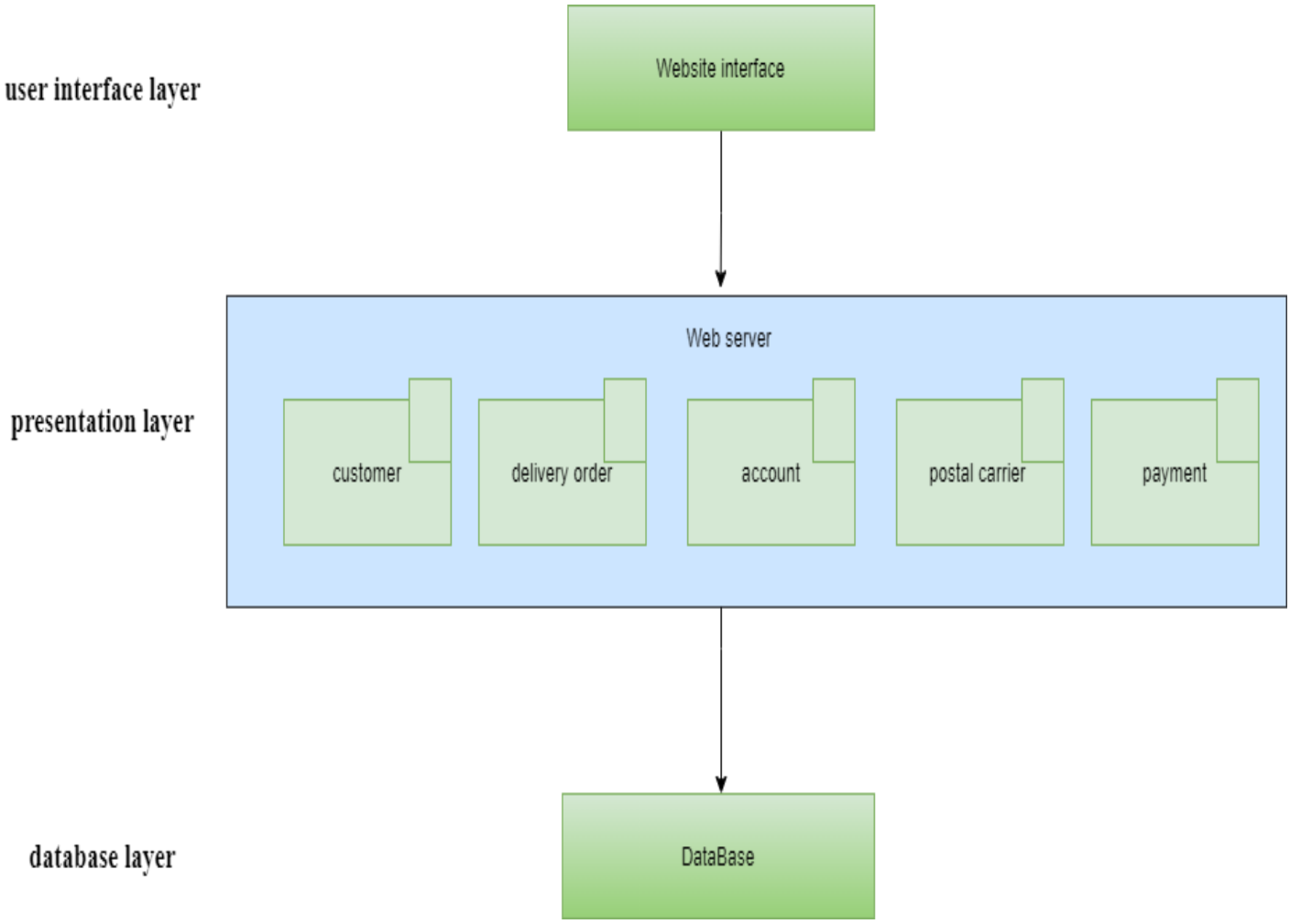
-User-friendly: The system is easy to use without difficulties and interface is not overly complex and the average user require minimal explanation for how to use it, user-friendly.

Component Diagram by Yaqout .

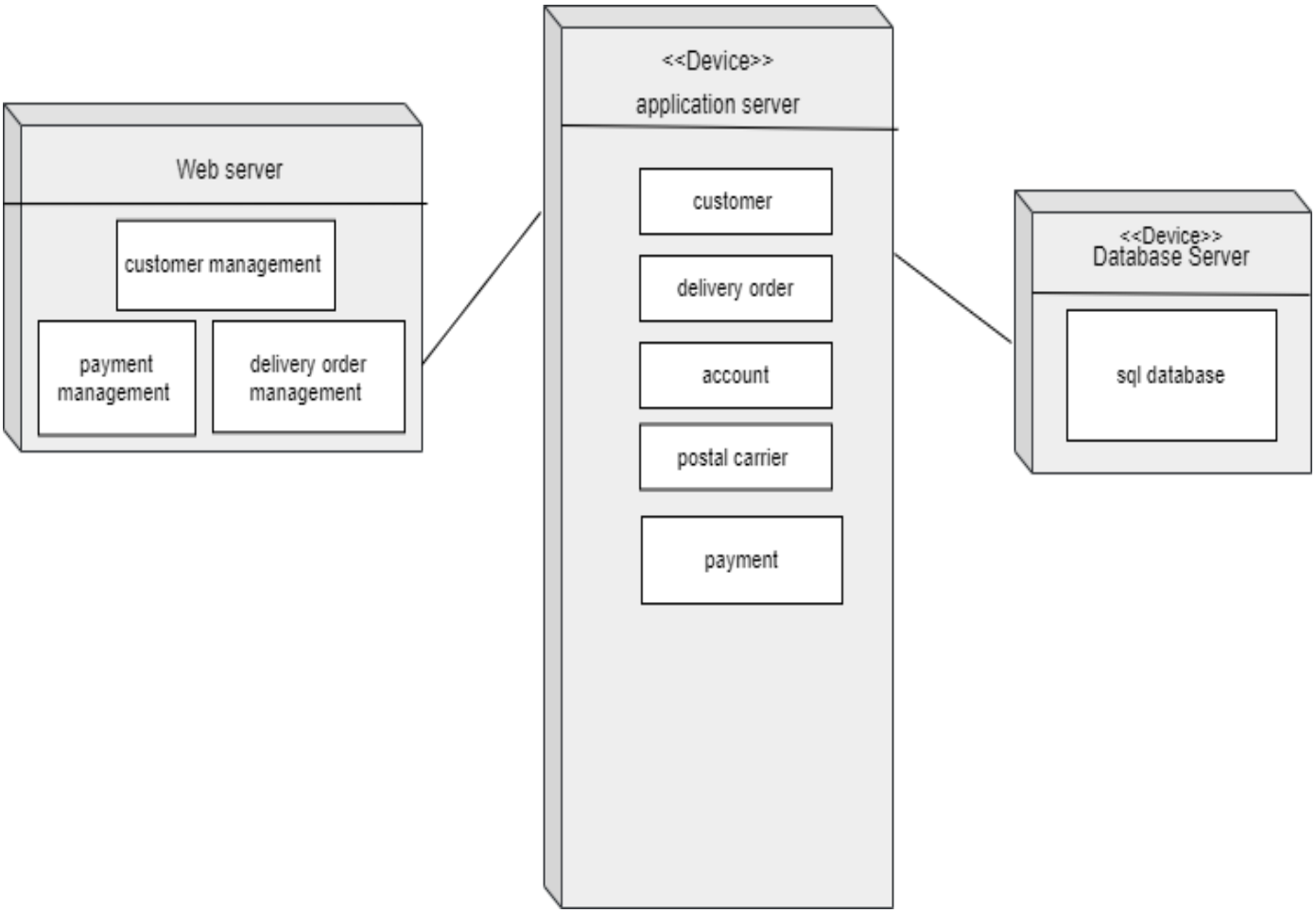
User-friendly : We didn't put all the interfaces together so we divided the user interface into 3 different interfaces so it will be easier for customer to use it.



Overall architecture diagram by Dalia and Anwar .



Deployment diagram by Yaqout.



THE END

FOR COURSE SOFTWARE ENGINERING

2021