Cairo University
Faculty of Computers and Artificial Intelligence

CS251

Introduction to Software Engineering

Project Name

Software Design Specifications

Version 0.0

Month & Year

CS251: Phase 2 – <Team Name>
Project: <Project Name>

Software Design Specification

Contents

Team 3
Document Purpose and Audience 3
System Models 3
I. Architecture Diagram 3
II. Class Diagram(s) 5
III. Class Descriptions 5
IV. Sequence diagrams 7
Class - Sequence Usage Table 10
V. State Diagram 11
Tools 11
Ownership Report 12

CS251: Phase 2 – <Team Name>
Project: <Project Name>

Software Design Specification

Team

ID	Name	Email	Mobile
20210420	Mina Maged Faris	Menamaged669@gmail.com	01140240229
20210291	Felopater Maher Faris	felomaher44@gmail.com	01061534038
20211012	Eslam Sayed Goda	esla889900@gmail.com	01157228162

Document Purpose and Audience

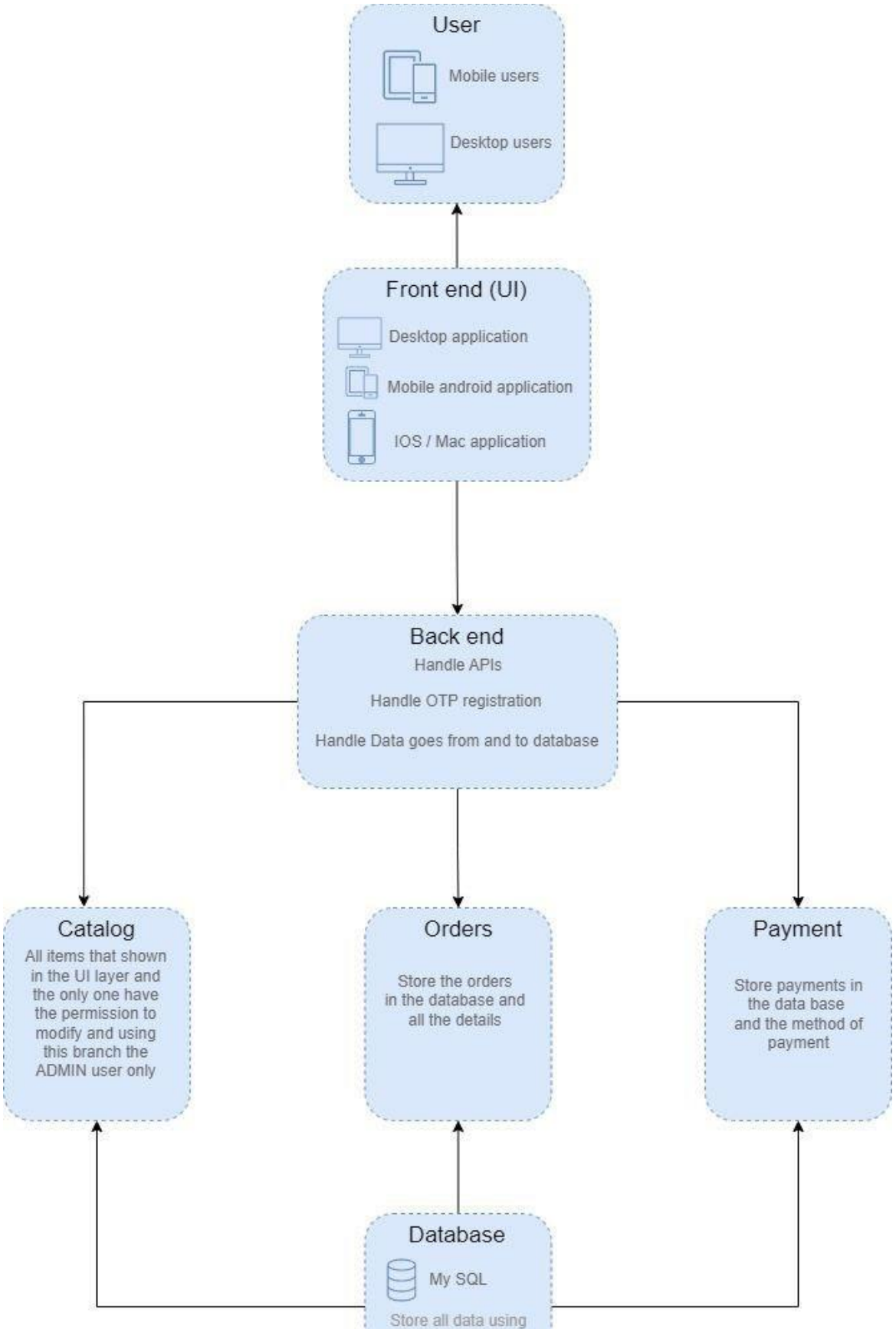
- **SDS (System Design Specification) is a document that outlines the design of a software system.**
- **SDS helps ensure that the software system is designed and built according to specific requirements, and that it meets the needs of its users.**
- **Audience: software developers, designers, project managers and stakeholders such as product owners, business analysts, and quality assurance personnel.**

System Models

I. Architecture Diagram

CS251: Phase 2 – <Team Name>
Project: <Project Name>

Software Design Specification

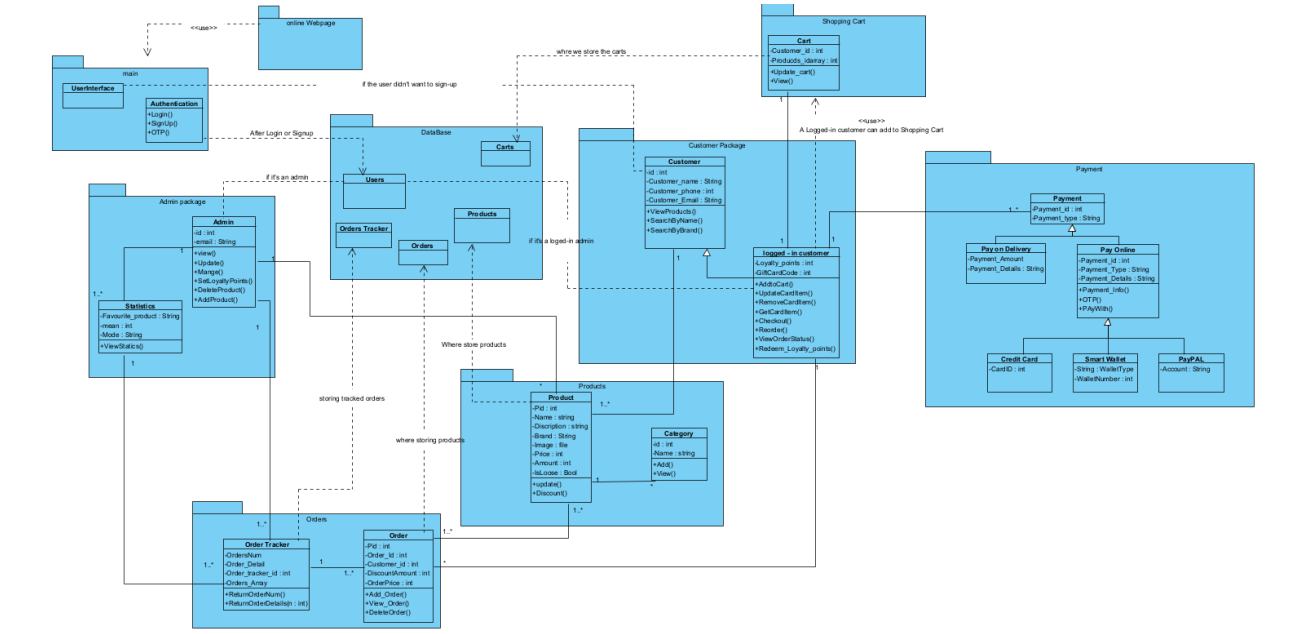


CS251: Phase 2 – <Team Name>
Project: <Project Name>

Software Design Specification

II. Class Diagram(s)

Please note that I put the file in the folder for a better view it will open with Visual Paradigm only.



III. Class Descriptions

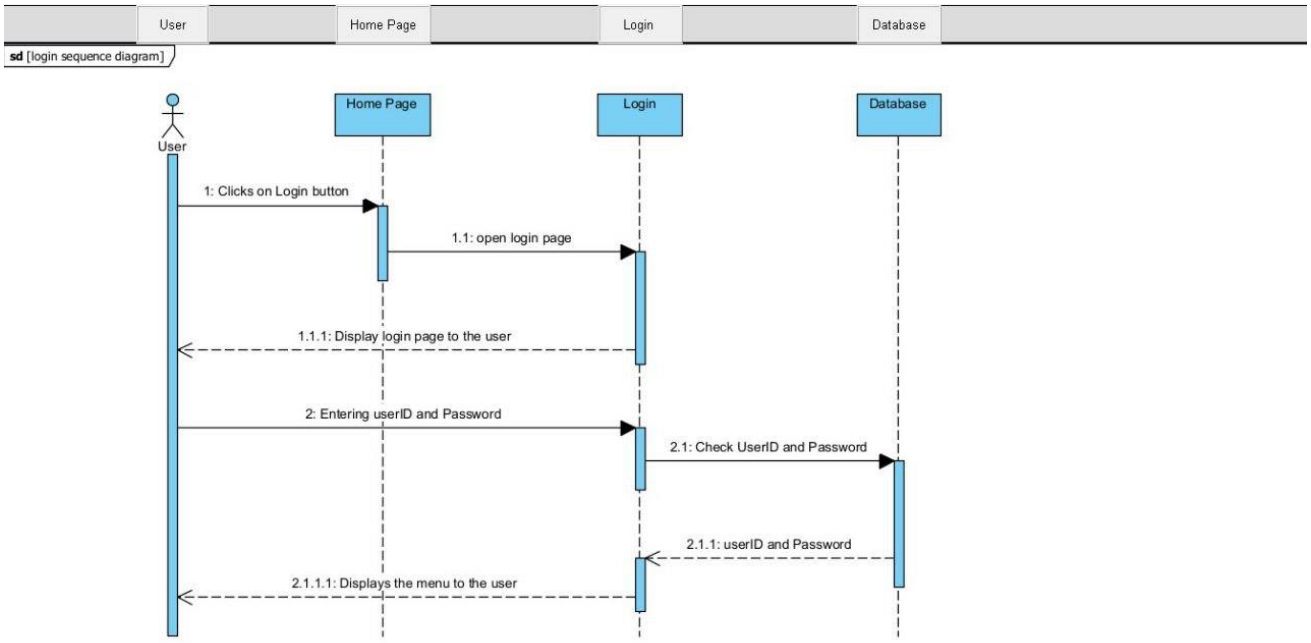
Class ID	Class Name	Description & Responsibility
1.	product	In this class we used to store item information.
2.	Category	Every class product has one category to divide the items and make it easier to be found.
3.	order	In this class we store order details.
4.	Order tracker	From the name of class we track orders and store the number of orders in it and the details of that order to use it in reorder function and to use it to make statistical analysis for the admin or order history.
5.	Admin	In this class we store admin details and give him his responsibilities.
6.	Statistics	In this class we use order tracker class to give us some information about orders to make us able to make the statistics we want.
7.	Customer	In this class we allow non-logged-in customers to view the products and some features, but s/he cannot make an order he must log-in.

Software Design Specification

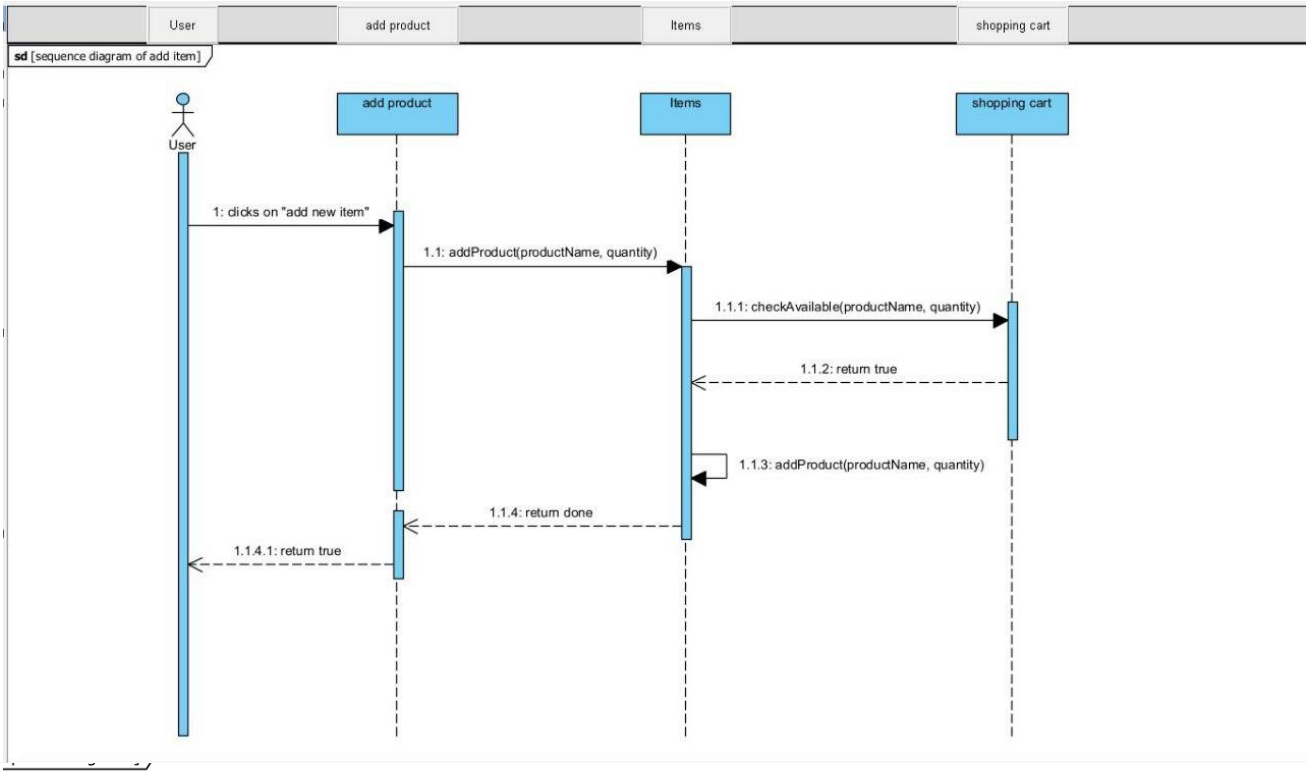
Class ID	Class Name	Description & Responsibility
8.	logged-in customer	Inherited from customer In this class we make logged-in customer have special features like add to cart and logged-in customer can make an order.
9.	Cart	In cart class we store items that the user wants to buy later.
10.	Payment	We store the payment method in it.
11.	Pay on Delivery	We store some information about the payment like order details and its price
12.	Pay Online	We store the important information about how customer is going to pay in another words what method s/he is going to use like e-wallets
13.	Authentication	Class to make user sign-up or login and it make sure that the user is logged- in and it has an OTP function that sends the message.

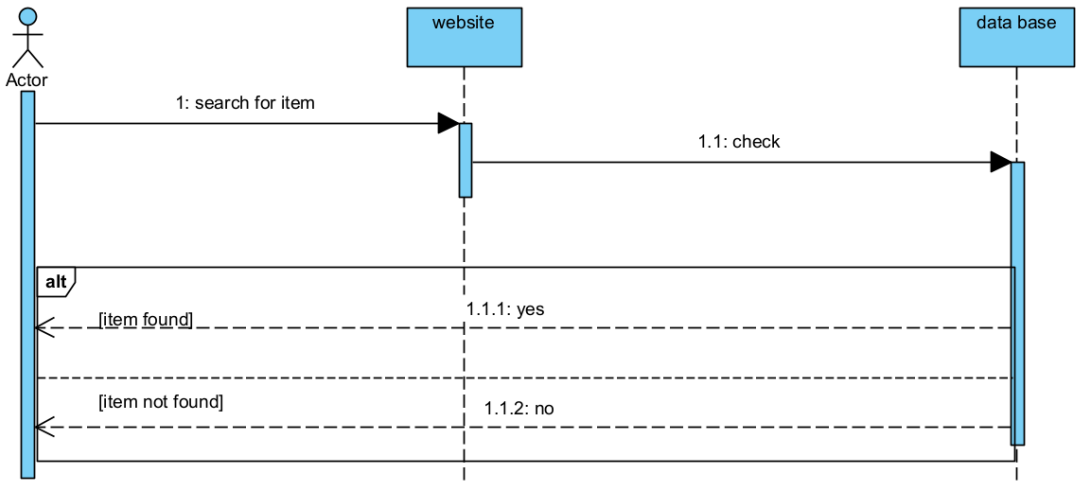
Software Design Specification

IV. Sequence diagrams

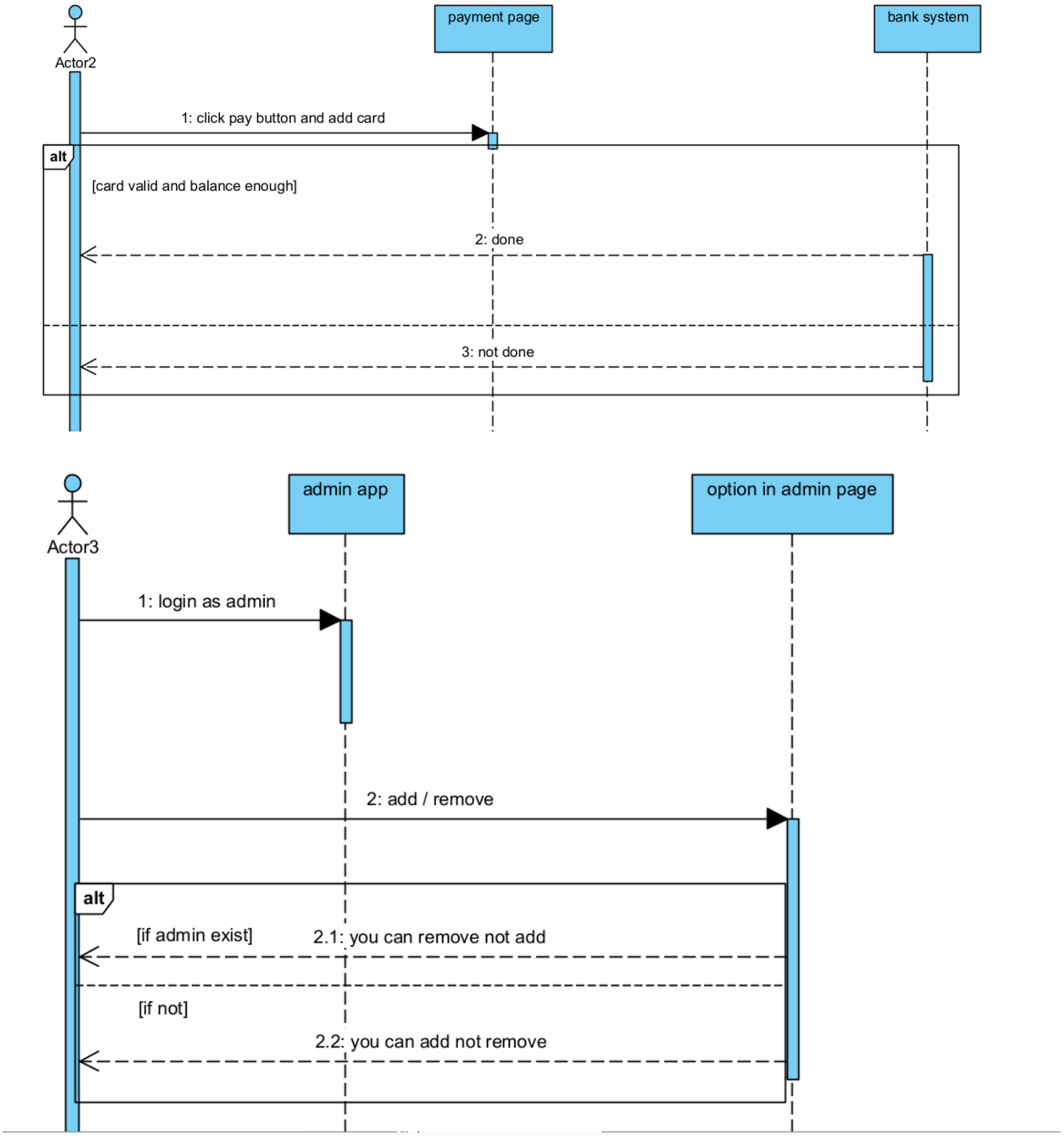


Software Design Specification

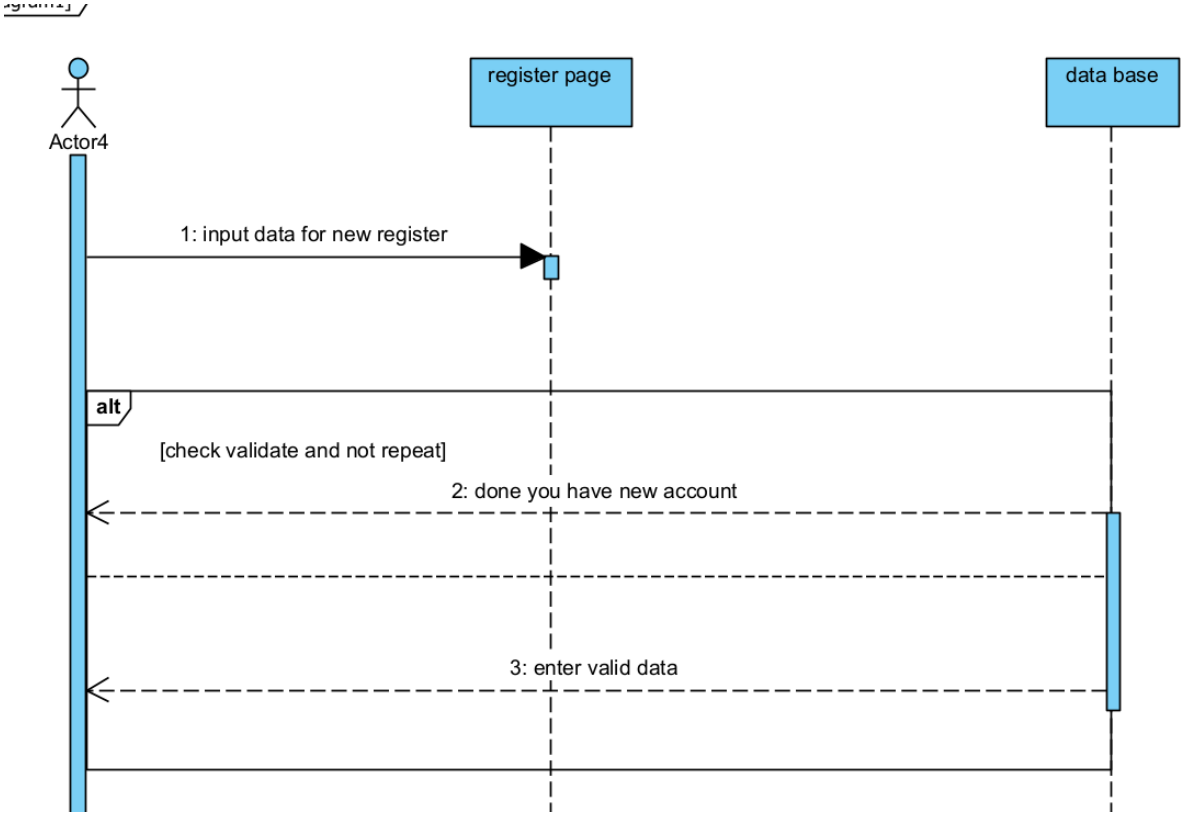




Software Design Specification



Software Design Specification

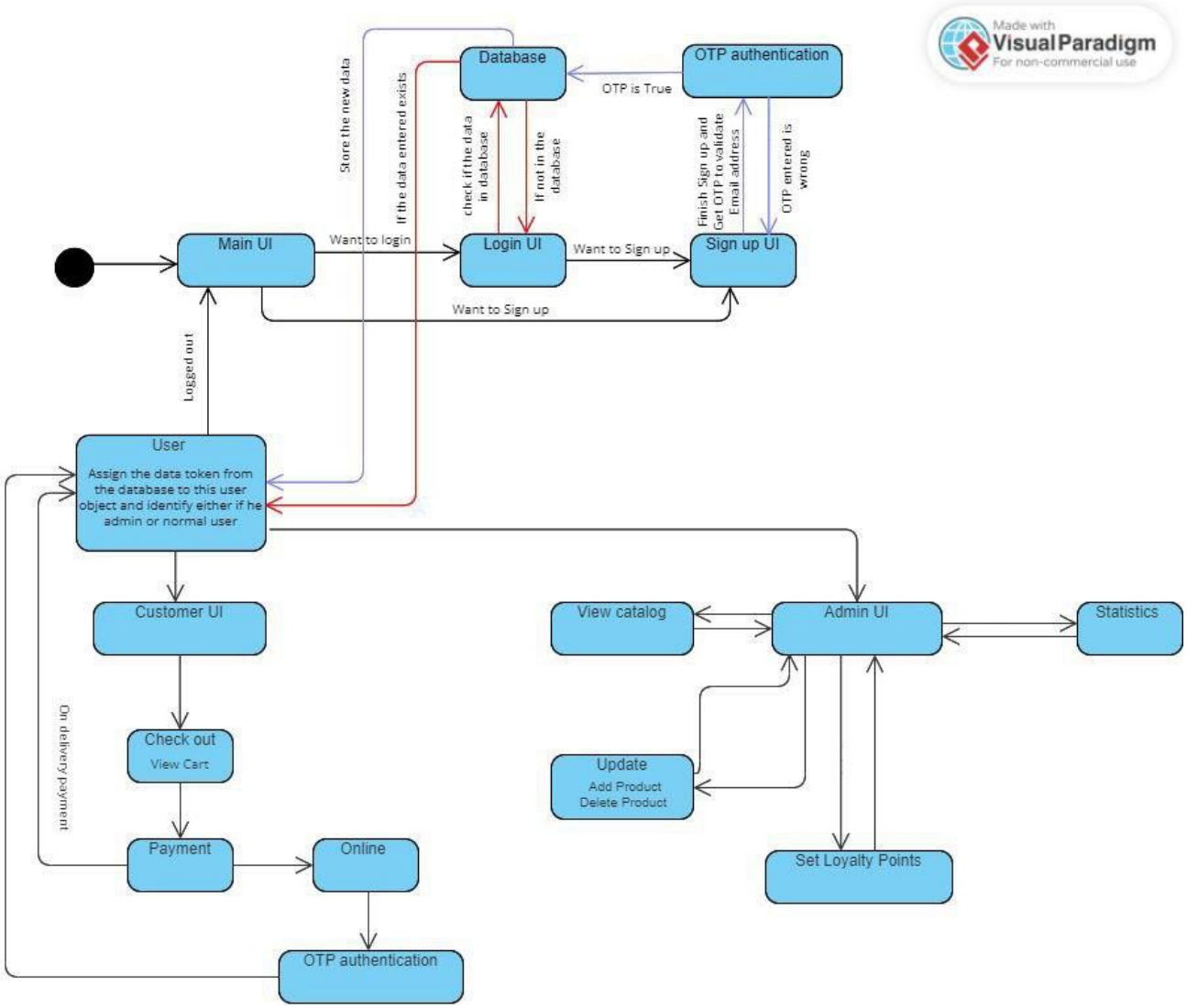


Class - Sequence Usage Table

Sequence Diagram	Classes Used	All Methods Used
1. login	Class System Class database	Method checkLogin(Integer id,String password)
2. add product	Class database Calss Product	Method add_product(……)
3. Search	Class database	searchForProduct(..);
4. Payment	Class database Class System	addAddress() addProductSFromCartToOrder() orderFinished()
5. Admin Login	Class database Class System	adminLogin()
6. register	Class System Class database	Method signUP()

Software Design Specification

V. State Diagram



Tools

Software Design Specification

- Visual Paradigm

Ownership Report

Item	Owners
Mina Maged Faris	**Part of class diagram and sequence diagrams 2 ,3 and 6.**
Felopater Maher Faris	**Part of class diagram and sequence diagrams 1 , 4 and 5.**
Eslam Sayed Goda	**State Diagram and Architecture Diagram.**