

## Software Engineering Project



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## II. Part one: Feasibility Study & Project Proposal

### A. Introduction

Online shopping has become common these days in any country, such as buying products and clothes online, because there are a lot of benefits, as online shopping makes it easy for people to shop from home using their mobile application without having to move from one city to another. It is also less expensive than regular shopping when shopping by transportation.

### B. Problems

**There are a lot of problems that the application will solve:**

1. Moving from one store to another to search for the best products via the shopping car
2. The cost of transportation while going shopping from one shopping center to another
3. Customers do not receive news or notifications about new products and offers, resulting in missed opportunities to purchase favorite and cheap products.

### C. Background

"Nice One" application is one of the most famous stores selling beauty products online in the Kingdom of Saudi Arabia. This application was created in 2017 by Abdul Rahman and Omar Al-Olayan and quickly became the first online cosmetics store in the country. Nice One offers a wide range of cosmetics, makeup products, care sets, home accessories, perfumes, etc.

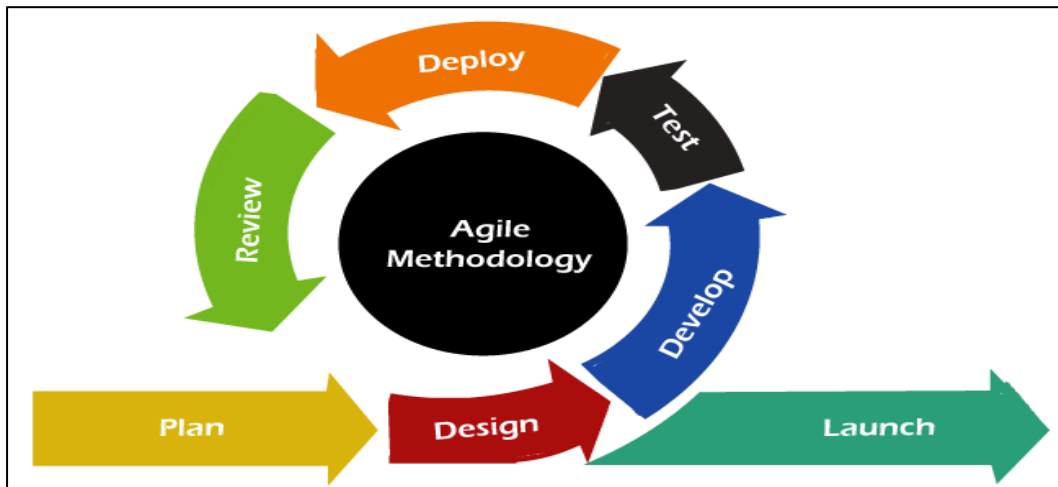
### D. Proposed Solution

It solves the difficulties that customers face in searching for the best products and buying them by converting the normal shopping of products to a method of purchasing products electronically while providing delivery service, improving customer satisfaction, and increasing sales. Also, we will provide customers with the facility of receiving real-time notifications about new offers and products.

### E. Work Plan

In our online shopping app "Nice One," agile development methodology can be beneficial because it allows for iterative development and continuous feedback, quick iterations, frequent releases, and continuous user involvement.

The development process for develop app will include phases: **planning** (collect requirements), **designing** (designing database and user interfaces), **development** (start programming app using platform such as android studio or flutter platform with Dart), **testing** (test app by real users), **launch** (upload app to be ready for shopping), **review** (review response of users).



### III. Part Two: Project Requirements

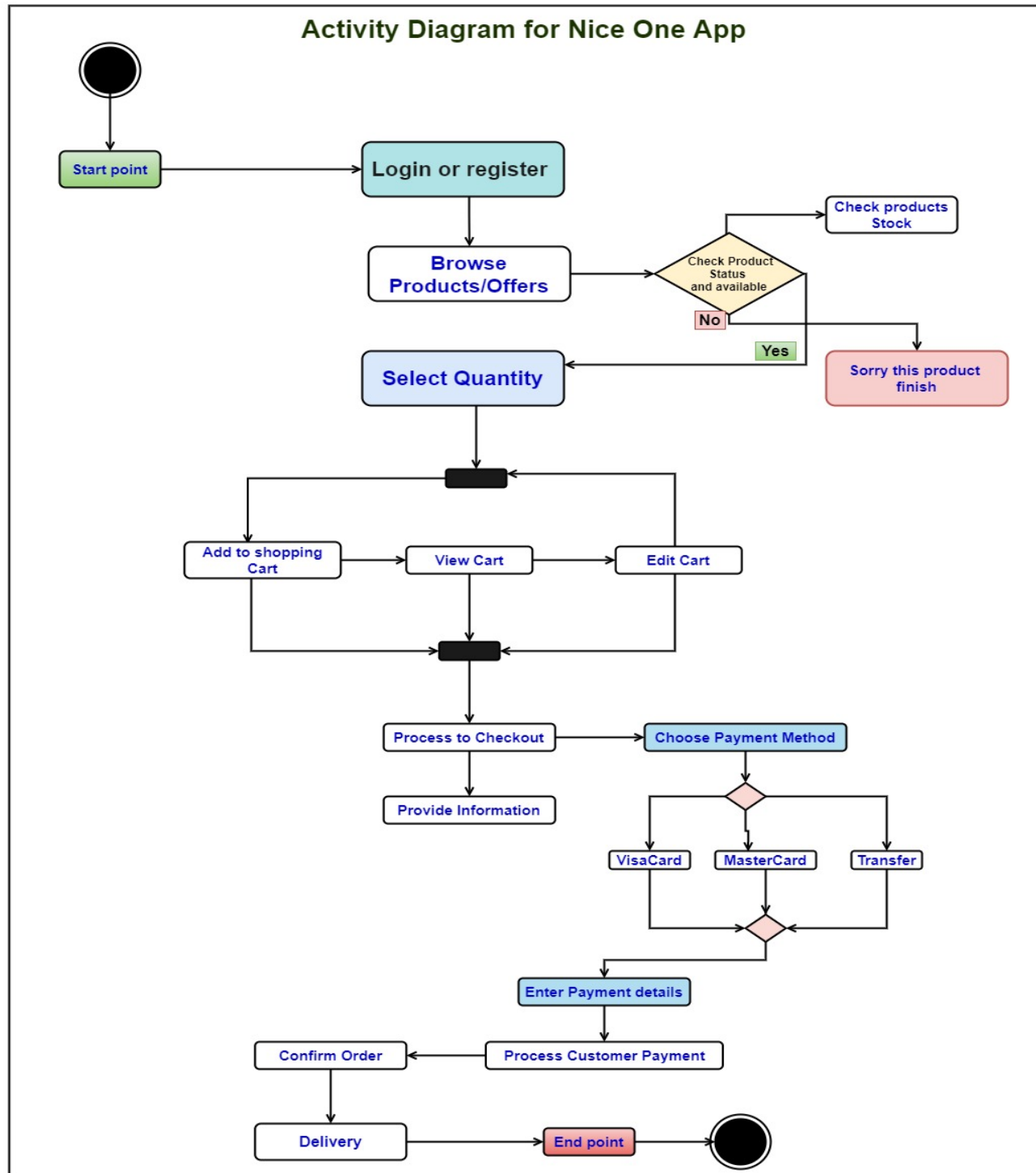
#### A. Functional Requirements (FR)

1. Customer Registration: Customers should be able to create accounts and log in to the app.
2. Product Display: The app should show products in an organized and user-friendly way.
3. Search and Filtering: Customers should be able to search for products and apply filters to buy their product favorite.
4. Product Details: Customers should be able to view detailed information, opinions or comments, and ratings for each product.
5. Shopping Cart: Customers should be able to add products to a shopping cart and proceed to buy any product at any time.
6. Notifications: The app should send notifications to Customers about new products and offers.
7. Order Tracking: Customers should be able to track the status of their orders and their deliveries.
8. Payment Integration: The app should provide secure payment options to facilitate online buying.

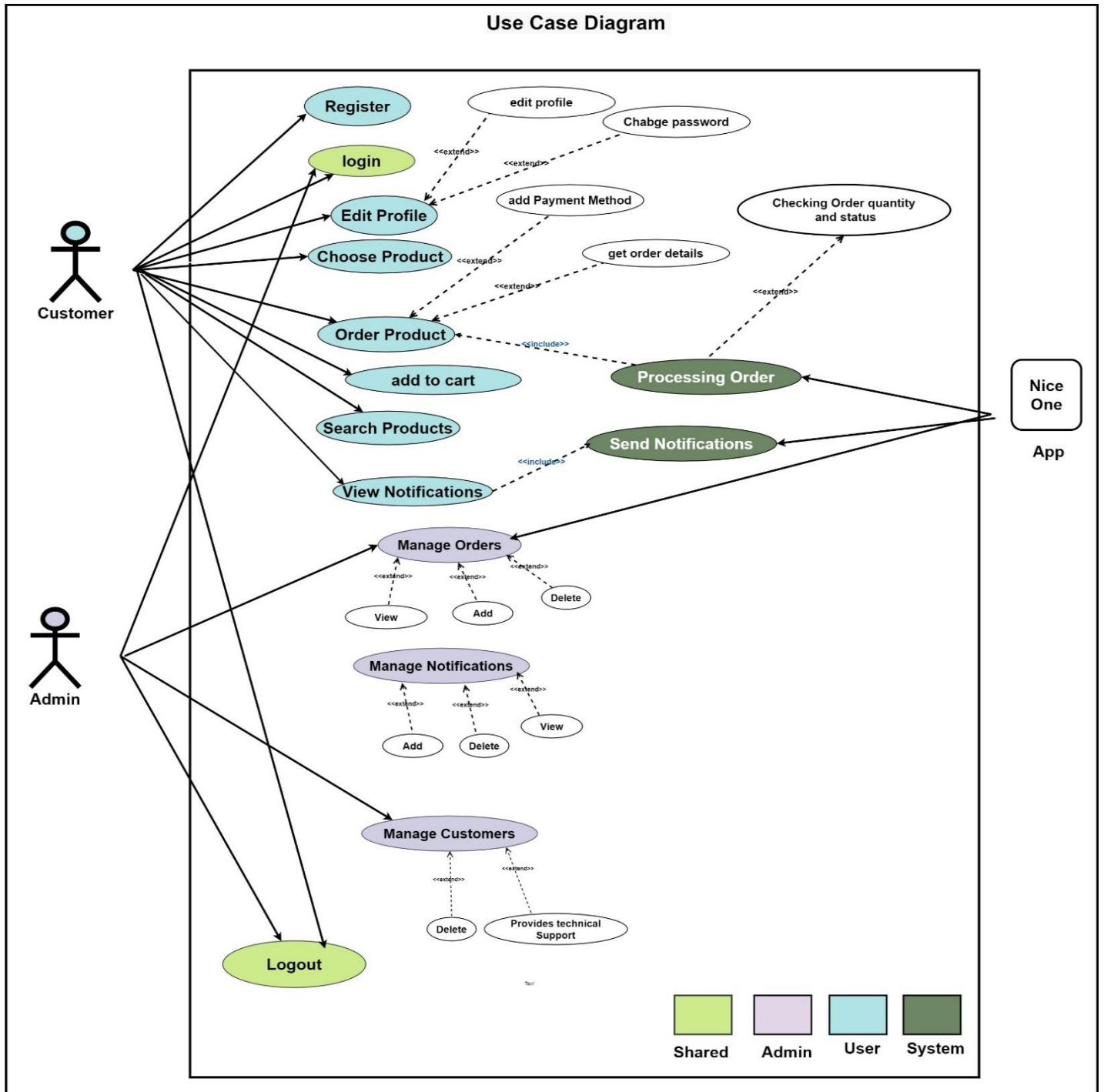
#### B. Non-Functional Requirements (NFR)

1. Performance: The application should be more responsive with all devices and provide a nice browsing experience even with a huge number of products.
2. Security: Customer data and payment information should be encrypted and stored securely in a secure server.
3. Availability: The app should be available at any time sending notifications, receiving customers' orders, and other services.
4. Usability: The customer interface should be intuitive, visually interesting, and reachable to an inclusive range of customers.

## IV. Part Three: Activity Diagram



## V. Part Four: Project Use Case Modelling



Use Case Actors are: Customer, Admin and app.

**Table1: Placing an order**

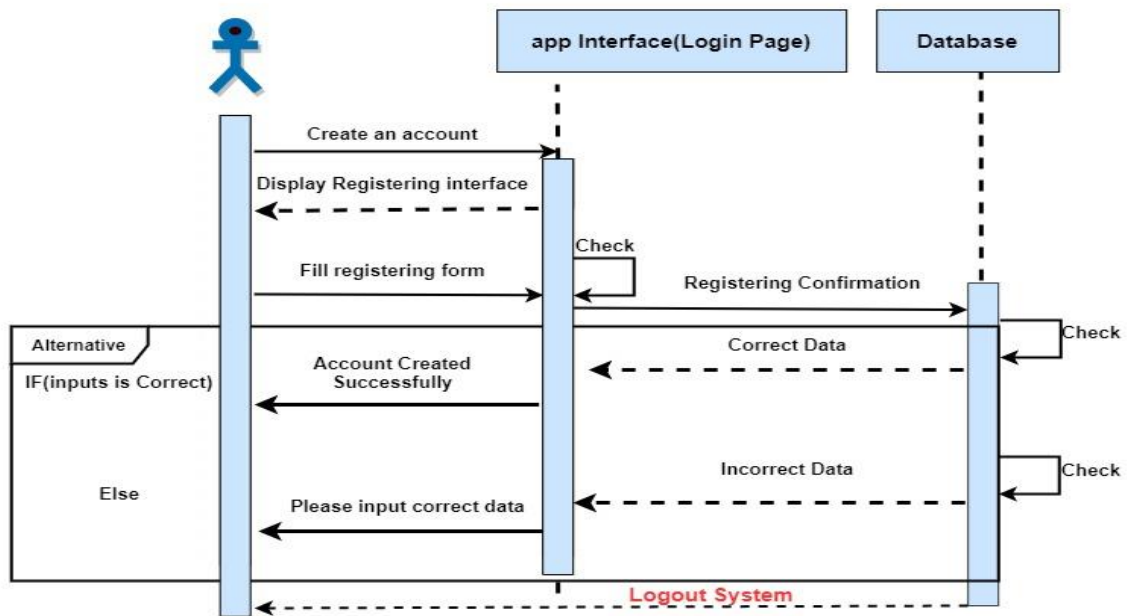
<b>Actors</b>	Customer, Nice One App
<b>Description</b>	A customer browses products on the Nice One App, adds items to their cart and places an order.
<b>Data</b>	Selected products, delivery address and payment details
<b>Stimulus</b>	Customer selects products and adds them to their cart, Customer clicks "Place Order" button
<b>Response</b>	Order confirmation message displayed on app
<b>Comments</b>	Payment is processed and order is sent to warehouse for fulfillment

**Table2: Tracking a delivery**

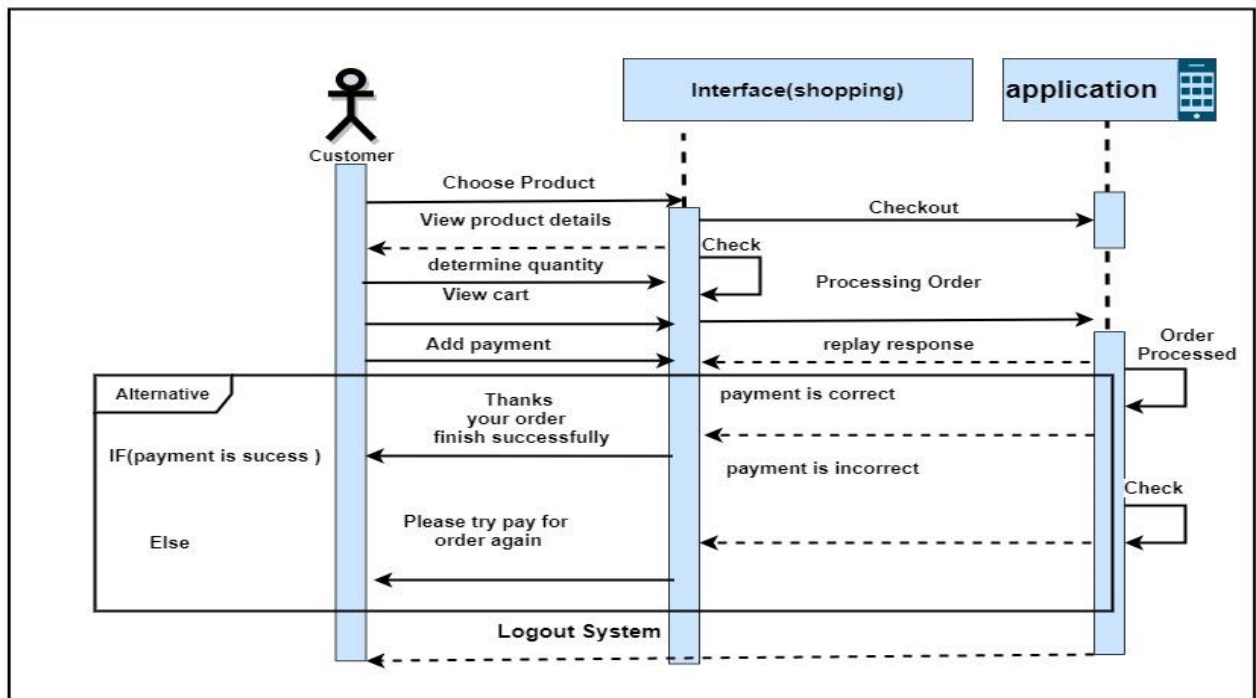
<b>Actors</b>	Customer, Nice One App, Delivery Service.
<b>Description</b>	A customer can track the status of their order delivery via the Nice One App.
<b>Data</b>	delivery details like tracking number, current location.
<b>Stimulus</b>	Customer clicks "Track Order" in app.
<b>Response</b>	Real-time updates on shipment status from Delivery Service API retrieved and displayed in app.
<b>Comments</b>	Delivery Service provides delivery data via API. Customer is notified by app and email as status changes.

## VI. Part Five: Sequence Diagram

**Sequence Diagram (Register) for Customer**

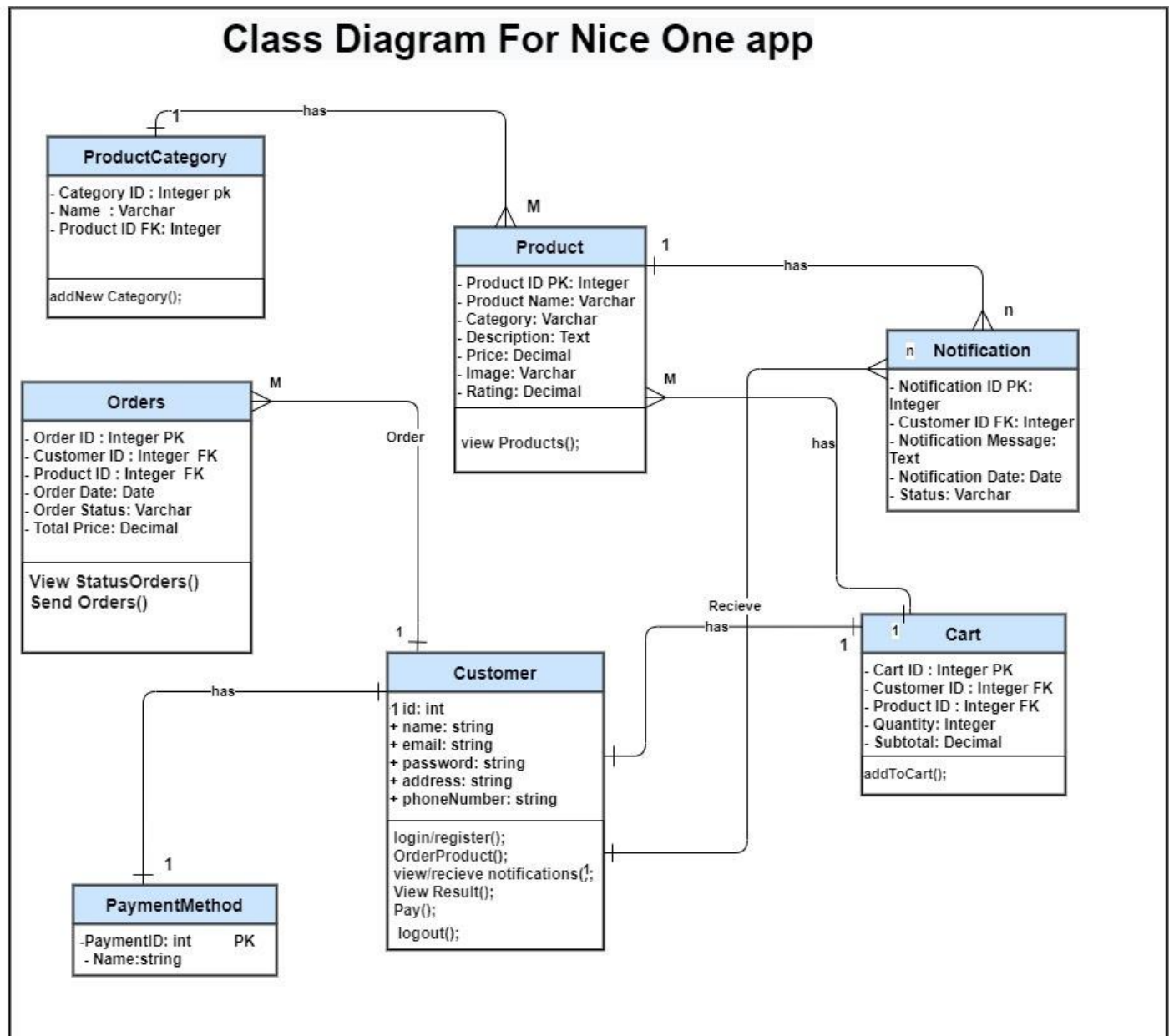


**Sequence Diagram (shopping) for Customer**





## VII. Part Six: Class Diagram



**Note:** The diagrams had designed using (offline software called diagrams.net 13.9.9 -URL (<https://app.diagrams.net>),so opening design work (open app by URL -select File -import file of project "Nice One app diagrams.drawio") ).