EXPRESS DELIVERY: A MOBILE APPLICATION FOR FAST PRODUCT DELIVERY

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Abstract

The perception of third-party deliveries has been in the limelight particularly during the countrywide lockdown and social distancing restrictions. These services are time-bound, meaning the customers expect the delivery of the ordered products in a few hours or maximum the next day. These on-demand services are like quick fixes for the retail market and the C to C e-commerce. Mobile applications come to the rescue in such situations. The application will help in arranging the pickup of orders and their on-time deliveries. Few reasons for using third parties for on-demand deliveries make it tremendously expedient to obtain, process, and deliver the orders from the retailer to the customer. Express Delivery is a mobile application for fastest merchandise carriage and will emphasis on the requirements of communal members at the present time. Through this application, the customer can effortlessly wish what he wishes from foodstuffs to some goods and chattels from the stores that will be accessible in the application and which will be adjacent to their localities by enlisting what he desires in the purchase box, and then the payment is completed after selecting the payment method, either by disbursing on transfer or by giving with a credit card. The customer can specify different delivery addresses as per their requirements for their family and friends. The application will be developed using ASP.Net and MS Access. Requirements and expectations of the users have been collected using an online survey.

Introduction

It's an app that helps people in need get things quicker, particularly those who can't afford to go to stores and get what they need. People will benefit from this application because it will meet their necessities and needs while still delivering their goods to their doorstep. We will also include some stores and hypermarkets via this application. On the one hand, the user will decide what items he needs, the customer can specify the product specifications if any, and food articles from any store, and we will fulfil his requirements through the application and send it to the individual. Additionally, the user may submit a particular item to another person through the application and specify another delivery address. We will go to the individual and collect the package and send it to another person after he enters his detail.

Literature review / Study of existing system

Talabat Application

TALABAT is an organisation with divisions in Kuwait, the United Arab Emirates, the Kingdom of Saudi Arabia, the Kingdom of Bahrain, the Sultanate of Oman, the State of Qatar, and Jordan that has developed an application that connects clients' requests with their favorite cafés through the Internet. This company provides an easy and convenient way for clients to interact with their top cafés. The program can be used on a computer, a smartphone, or even a notebook. This company receives the client's request and directs it to the eating place with a program linked to demands and the café; as a result, you won't have to deal with the issues of giving the request over the phone or confirming that the client received the request on time. As per (talabat)

Amar Application

It's a job application for an Omani. This application was created in the year 2019. This app puts together a variety of retailers, including food, clothes, and skin care, among others, so that customers can place orders and get them delivered. This is an online shopping service that can offer customers details such as pricing and shipping costs for various items such as clothing, skin care, and foods. This program performs the same functions as my proposed application. Users log in to the application, choose the category of objects that attract them, and then pick the object that they want. The request is dispatched by the application management after payment is made by credit card. According to (www.amarapp.cam, n.d.).

Hadaya Application

It's a gift-giving service that merely vends and sends flowers and cakes. This application only delivers for birthday ocassions and it only delivers in the governorate of Muscat. This application was planned and completed in 2017. This program also allows users to log in with their email or phone number, and then directs them to a gift group that they are interested in. The presents may also be given as a present to any family member or friend. Bank Muscat and National Bank of Oman credit cards are approved for payment.

Tmdone Application

An app for an Omani business that offers a variety of restaurants and delivers them on time to customers. It is a Muscat-based business that was established in 2019 for Omani youth. When you first open the app, you'll see a list of restaurants where you can stay and order food. There are also several categories in the, each with its own set of rates and hotel standards. This software was created specifically for the distribution of food from restaurants to customers. This application was created specifically for visitors to Oman. This program gathers customer or consumer location data and recommends nearby restaurants, as well as discussing the selection of foods that the restaurant offers. Users must sign up for the app and have an email address, a cell phone number, and a username.

Problem definition

Any of the issues that can occur are extremely minor, such as not appropriately tracing the household to supply the article to the individual immediately without some difficulty or delay, and the next difficulty is not agreeing the trademark of the material or the consistency needed to buy it, so this problem will give us a problem in the purchasing of the items, and the buyer will fail to accept purchases.

To prevent these issues with the house's position, we would ask the consumer to identify the right address and give us the house number to help with the distribution process as well as the problem of selecting the product's standard. We would allow the customer to identify the brand or quality by writing it in the summary line or selecting it from the store's inventory.

Data Collection using Questionnaire

In this project, data was gathered from primary and secondary sources, with the questionnaire serving as the primary source.

According to the results of this survey, 70% of people tend to order from delivery apps on their tablets, while 30% prefer not to use delivery apps. Also, 40% of people who order from delivery applications once a week, 30% of people who order twice a week, and 10% of people who order once a month. 70% of those who preferred

distribution apps agreed that they met people's needs well, while 30% disagreed. The availability of discounts and deals in it, which was at a rate of 22.2 percent, or that it saves time, which raised the voltage by 11.1 percent are some of the factors that allowed people to order distribution applications.

Methodology

In our project, we decided to use the DSDM model to build and analyse the project. DSDM is an agile project management methodology that focuses on the whole project life cycle. It's a lean system that takes into account the whole project life cycle as well as the effect on the enterprise.

I selected it because it has a lot of functionality that will assist in the design of the distribution application. It allows me to plan all my work overtime and to complete all of my tasks on time.

Design and Prototype

Data flow diagram: Data flow diagrams show the course of data in a commercial information system sketchily.

DFD signifies the stages involved in transporting information from the input to file storage and the generation of the reports.
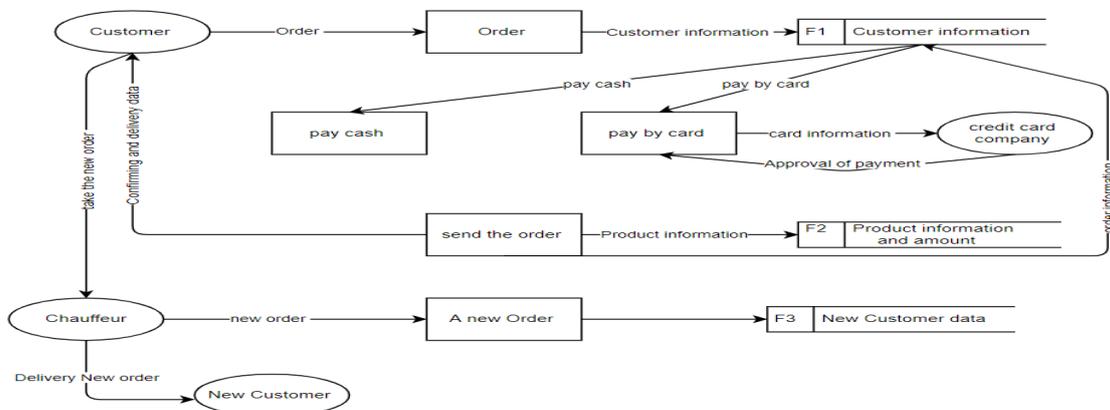

Figure 2 Data Flow Diagram
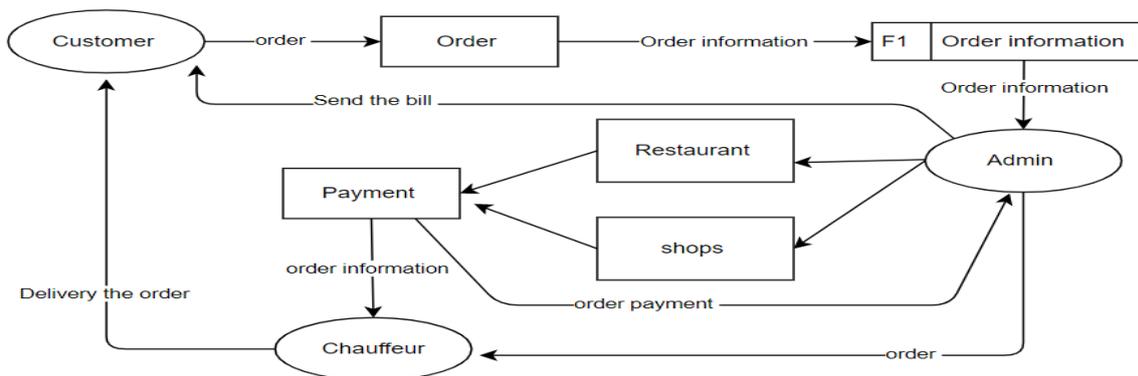
Data Flow Diagram level 1:

Figure 3 Data Flow Diagram Level 1

Use case diagram.

A use case diagram is a active or communicative diagram in UML that is a fixed sequence of actions, amenities, and purposes that the system desires to perform.
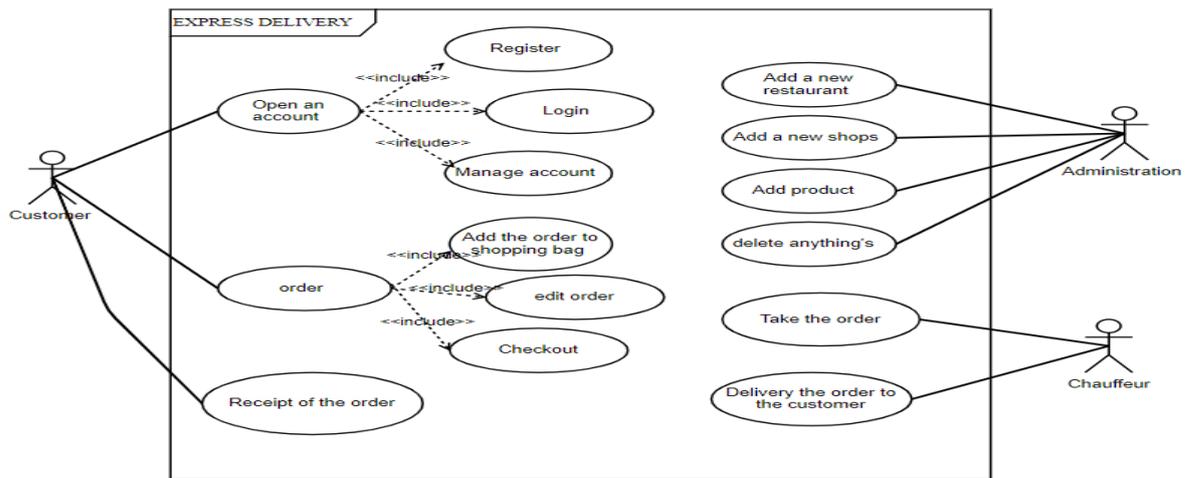
Figure 4 Use Case Diagram

Class diagram:

In software engineering, a class diagram is a stationary organization that spectacles classes, properties, functions, and their relationships to one another to offer a summary of a software system.
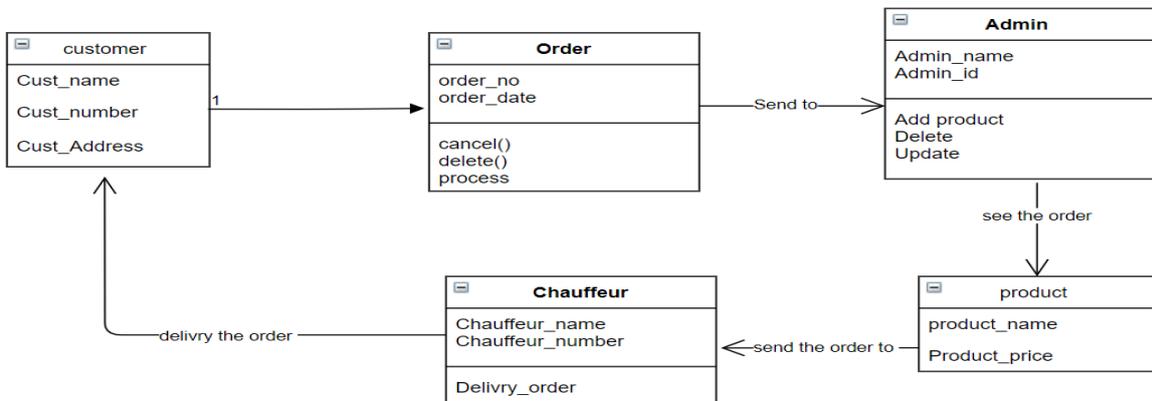

Figure 5 Class diagram

Flowchart:

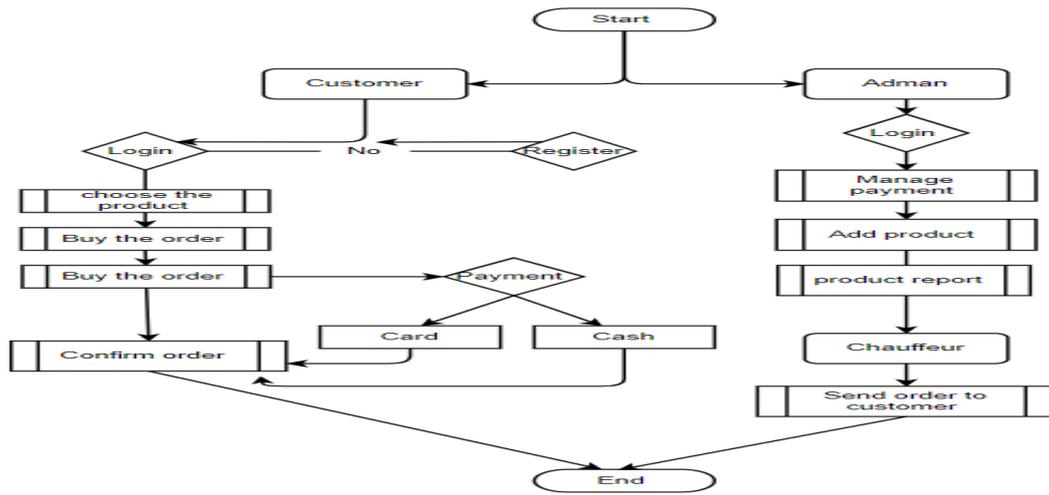A flowchart is a detailed depiction of a procedure.

Figure 6 Flowchart

Sequence diagram:

Order of events are interval oriented, and they substantially portray the edict of the association by using the vertical axis of the diagram to denote time, representing when communication is established and when the response is received.
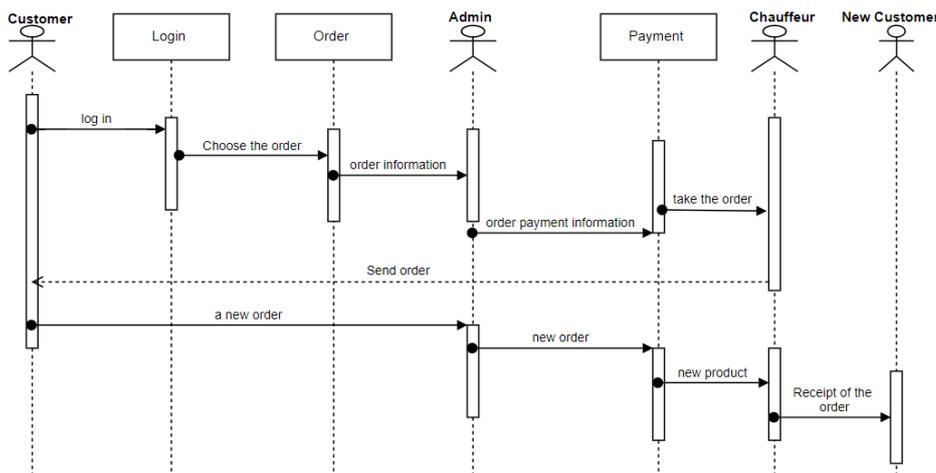

Figure 7 Sequence Diagram

The main components of application design for this project are:

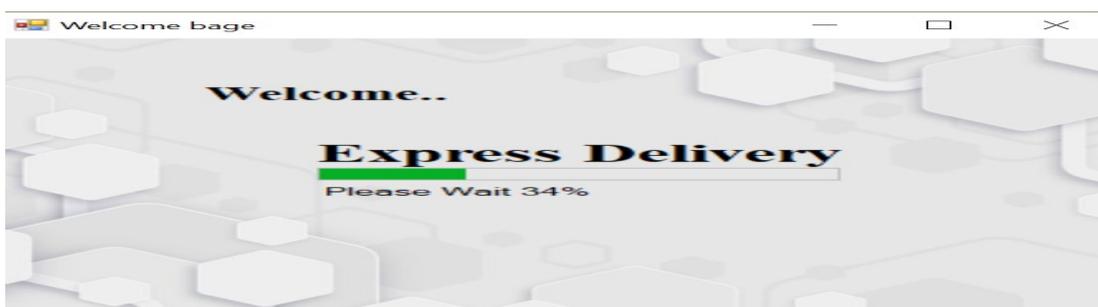Splash Screen: It is the first page in the application.

Figure 8 Splash Screen

Login and Registration page: Customer can login and register to the application also the admin can login in this page.

Figure 9 Login and Registration

Main page: On the main page of the program, several icons appear for us. The customer can choose what he wants to order from the application, and from us restaurants and stores, and he can also send gifts and other things.

Figure 60 Main Page

Limitations

As of now the limitations are that the payment system cannot be implemented online due to restrictions to get connected with the bank servers. Later on when the system will be deployed this feature can be implemented. Also testing is pending as the implementation is still incomplete. Some of the shortcomings might be taken care off during that.

Results

The results of the success or failure of the application will be available after the deployment.

Acknowledgment

Conclusion and Recommendations

We conclude by saying that it is a unique application that combines many advantages that facilitate the ordering and delivery process for customers. This application ascertain that you have a decent indulgence with the application. The app will contrivance discrete necessities, mechanize business procedures, and attain scalability as the amount of users in the app upsurges over the years. It also backs to aiding all people of society who cannot go to the stores physically.

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