Eat-Up Food Delivery

A Project Synopsis

Submitted by

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ABSTRACT

The proposed Eat-Up application is an online food delivery system that enables ease for the customers to order food items as well as administrators to manage the details of the same.

For the customer, this application provides a view of current food information (category, name, image, price, offer price, description) on the Android application. The customer can add items to cart and order food from the application.

For the administrator, this application offers a series of operations to add, update, delete and query the information of food and food order. The application includes three parts: Backend, Frontend and Database. The Backend was implemented with Android Studio in Java. XML is used in the UI for Frontend. The Database is maintained in Google Firebase and can be updated in real-time.

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1. Project Description

1.1 Introduction

The online food ordering system sets up a food menu online and customers can easily place the order as per they like. Also with a food menu, online customers can easily track the orders. The management maintains customers' database, and improve food delivery service. The restaurant management systems motivate us to develop the system.

There are various facilities provided so that the users of the system will get service effectively. Also, the system considers Restaurants as well as Mess facility to the customers. Again, the idea comes that mostly mess users are person who are shifted for various reason in new cities. So, they are interrelated. Increasing use of smart phones is also considered as a motivation, so that any users of this system get all service on single click. Another motivation can be considered as the system will be designed to avoid users doing fatal errors, users can change their own profile, users can track their food items through GPS, users can provide feedback and recommendations and can give management maintains customer's database, and improve food delivery service.

1.2 Hardware & Software Requirements

- Minimum Hardware Requirements-

  Processor: Qualcomm 434
  RAM: 512 MB
  Storage: 8 GB
  Display: 768 * 1024 pixels

- Software Requirements-

  Operating System: Android Lollipop v5.0

2. Problem Definition & Feasibility Study

2.1 Problem Definition

The online food ordering system sets up a food menu online and customers can easily place the order as per they like. Also, the online customers can easily track their orders. The purpose of this study was to investigate the factors that influence the attitude of internet users towards online food ordering among university students and working professionals. The payment can be made online or cash or pay-on-delivery system. Online food ordering systems should ensure accessibility at an acceptable cost and comfort, in an environment-friendly manner for the order of customer and delivery by the delivery person.

2.2 Feasibility Study

To overcome the limitations of above system, an Online Food Ordering System based on Internet of Things is proposed. It is a wireless food ordering system using android devices. Android devices have gained immense popularity and have revolutionized the use of mobile technology in the automation of routine task in wireless environment. Android is a Linux based operating system for mobile devices such as smartphones and tablets. To develop a reliable, convenient and accurate Food Ordering System is considered as a general Objective of the study. To develop a system that will surely satisfied the customer service will be considered as an objective. One of the objectives is to design a system that is able to accommodate huge amount of orders at a time and automatically compute the bill. To evaluate its performance and acceptability in terms of security, user friendliness, accuracy and reliability is an important objective. To improve the communication between the client and customers is one of the main objectives.

3. Resource Requirement

Physical Infrastructure	• Real time cloud-hosted database (Google Firebase)
Human Resource	• Administrators to update or modify the contents in the database.
Technology	• Firebase Console • Firebase APIs • Android Studio • JDK

4. Modules Description

Module & Features that are needed in application for customer are as follows:

1. New Order: New Order is the main feature of the customer side application that will be used to make orders. There are two ways to make an orders, the first one is using Make a new order feature to make an order by choosing restaurant and menus provided freely, and the second one is using My Favorites feature to make an order by choosing one of the top three favorites restaurant.

2. Order History: Order History is the feature that will be used to show customer's order history. This feature is divided to three parts, which are last order, Last 3 orders, and Last 7 orders that have been made by customer.

3. Restaurant Profile: Restaurant profile is the features that will be used to show restaurant profile. Customer can make a call directly to the restaurant through this feature.

4. Order Status: Order status is the feature that will used to show order status consist of "order received" means that order has been received by restaurant, "order confirmed" means that order has been confirmed by restaurant, "cooking" means that order has being prepare by restaurant, "delivering order" means that order has being delivery, and "done" means that order has been done. Customer can also show the delivery map while the status is on "delivering order".

5. Profile Setting: Profile Setting is the feature that will be used to show and to change customer profile, consist of name, address, email, and phone number.

Module & Features that are needed in application for restaurant are as follows:

1. Profile: Profile is the feature that will be used to show restaurant profile. Restaurant can also modify its data including change password, edit profile, and change restaurant logo.

2. Order: Order is the feature that will be used to show incoming order. Restaurant can also update order status, assign courier, and show order history through this feature.

3. Menu: Menu is the feature that will be used to show the list of menus. There are two types of menu which are “food” and “beverage”. Restaurant can also modify its menu including change the availability status of each menu through this feature.

4. Courier: Courier is the feature that will be used to show the courier list of restaurant. Restaurant can also modify its courier data including change availability status and declare delivery starting to run by courier through this feature.

Module & Features that are needed in application for admin are as follows:

1. Resto: Resto is the feature that will be used to show restaurant list. Admin can insert new restaurant and modify restaurant data including change restaurant active or inactive status through this feature.

2. Order: Order is the feature that will be used to show order list which has been done by each restaurant.

3. Menu: Menu is the feature that will be used to show menu list of each restaurant. Admin can also modify each menu through this feature.

4. Courier: Courier is the feature that will be used to show courier list of each restaurant. Admin can also modify each courier data through this feature.

5. Customer: Customer is the feature that will be used to show customer list in this application. Admin can also edit customer profile through this feature.

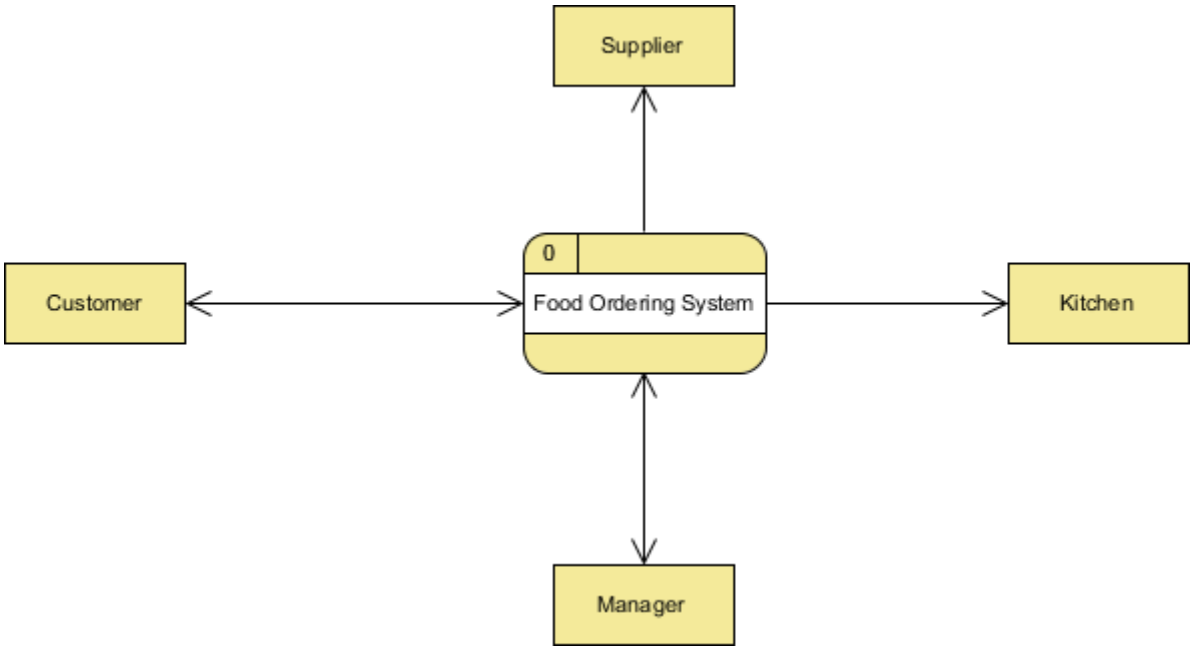
Module & Features that are needed in application for courier are as follows:

1. Delivery List: Delivery list is the feature that will be used to show delivery list progressing by courier. Courier can mark the delivery which has been done through this feature.

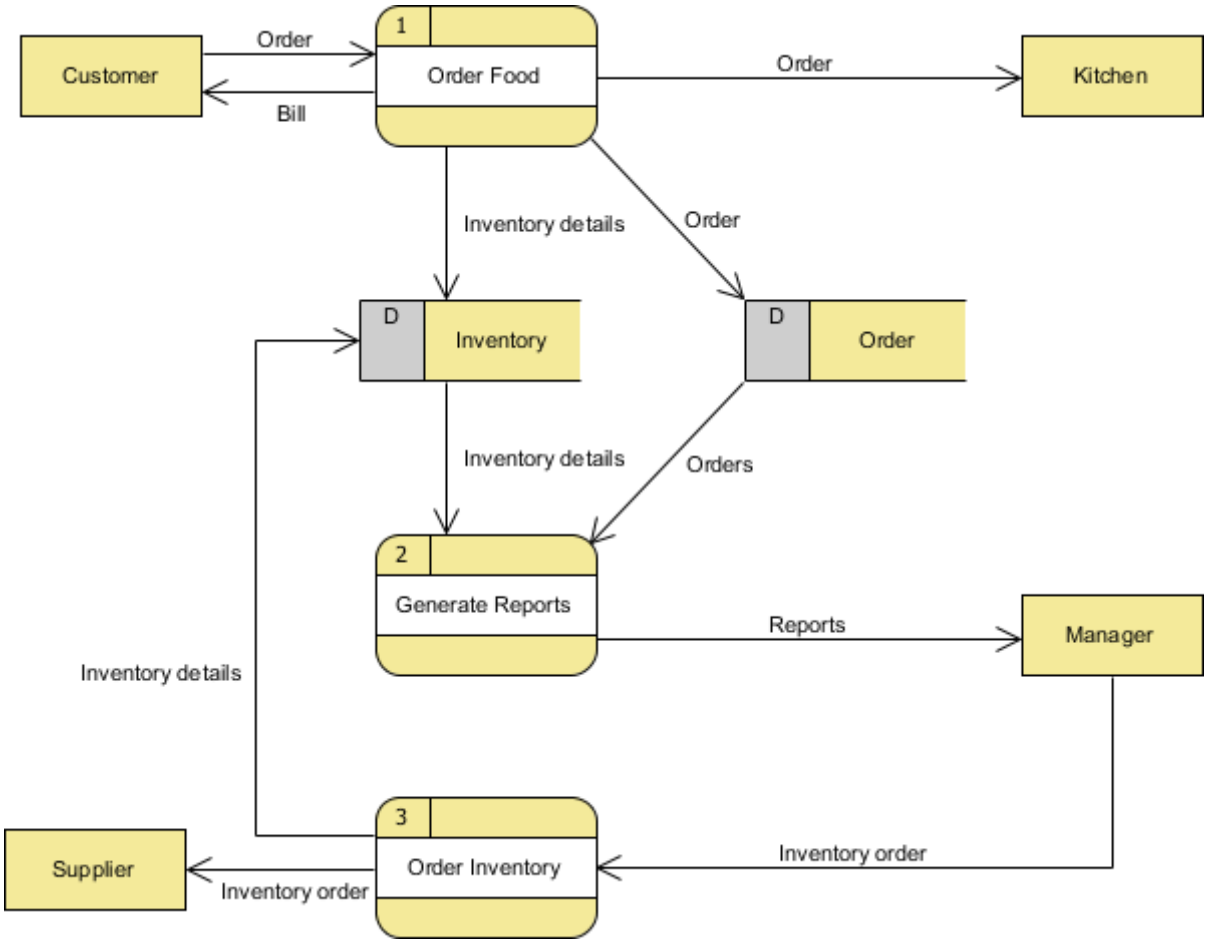
2. Tracking Order: Tracking order is the feature that will be used to show delivery map, consist of courier position and customer address.

5. DFD

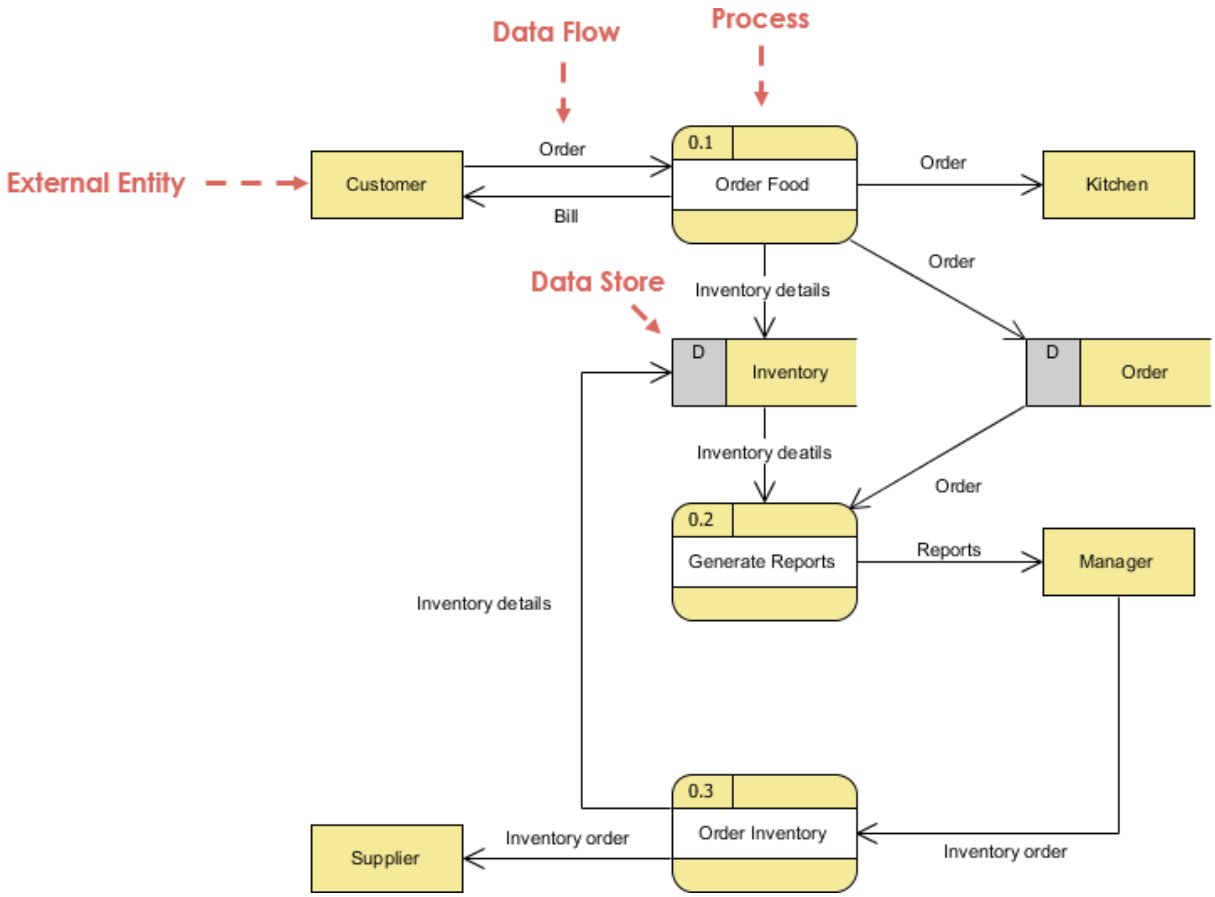
5.1 0-Level DFD



5.2 1-Level DFD



5.3 2-Level DFD



6. Conclusion

This section discusses the result of work done in this project and also mentions the future scope for this project.

The application will be developed by implementing the concepts of OOPS which reduces the complexity involved in maintaining it. The administrator required only sound technical knowledge about maintaining or updating the database. Any further enhancements in the application will be undertaken by the developer.

The application is light-weight which takes less storage space and also it can be used on various Android distributions versions.

The factors that guarantee the application's availability include correct and proper input details. Also the major resources and services used for project development are of Google & IntelliJ.

For its future scope, the application can be expanded by integrating other features and facilities like grocery and dairy products shopping and can be scaled easily for greater number of users

Hence, we may conclude that the food delivery application being developed will help a great deal to students and working professionals who have moved to new regions and also provides ease to restaurants to migrate or expand to online platform.