

FINAL PROJECT

Section 00313

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SUBMITTED BY

Rashmeet Kaur (1896566)

Amritpal Singh (1896564)

Anshul Kapoor (1896225)

Khushkirat Singh Virk (1896533)

Raminderjit Singh(1894513)

Deepak Maan(1894830)

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**1.PROJECT OVERVIEW**

**1.1 The Purpose of the project**

An Italian ingredients distributor cited the issues of maintaining different lists for delivered and received products manually. Not only this but it was difficult to view and manage orders, whether they have been received or delivered. He had to analyze the inventory items manually which is very time consuming and is prone to human error as well.

It takes a lot of time and effort to keep a record of your sales and generate manual invoice and send it to the customers. An application which could manage all the above-mentioned problems could prove to be very fruitful to the distributor as well as the consumer because the customer also can manage their account . This could help him generate automatic invoices and send to the generated mails by not wasting useful labour in trivial works.

**1.2 Goal of the project**

The goal of the project to meet requirements at every level for both the Admin and the user. This application is going to help the users (restaurants) maintain the orders, the list of goods which have been ordered, delivered or have been put into a pending list.

The application aims to resolve issues of maintaining manual invoice by replacing it with automatic invoice generation which would then be send to the registered mails automatically. Special notifications would be sent to the customers regarding unauthorized login attempts or delivery updates etc.

**1.3 Scope**

The scope of an inventory system can cover many needs as follows :

* To ensure that the supply of raw material and finished goods will remain continuous to that production process is not halted and demands of customers are duly met.
* To keep inventory at sufficiently high level to perform production and sales activities smoothly.
* To minimize investment in inventory to maximize profitability.
* To reduce the losses of theft, obsolescence etc.
* To minimize loss through deterioration, pilferage, wastages, and damages.
* To optimize various costs indulged with inventories like purchase cost, carrying a cost, storage cost, etc.
* To avoid both overstocking and under-stocking of inventory.
* To eliminate duplication in ordering stocks.

**2.General Description**

The Inventory Control and management application is basically a systematic approach to sourcing, storing and selling the goods (raw material).In nutshell we can say that right stock to the right user. This is the general description for the application.

The utmost requirements for the application is to track and control over the items with a systematic ways both from the user and admin end. User can place the order (CRUD operations) and admin can see the details of the placed order form the client end and deliver the received orders to the users with following benefits.

Reduce manual efforts

Optimize Results

Provide better customer service

Prevent loss from theft.

**2.1 Product Functions**

This application is basically a multitasking application with two different panel’s admin and user end with different user names, passwords and different rights to do the operations respectively. The very first requirement for the any application is the easiness to use for the user to perform various functionalities.

**Admin** has a different username and password .He can do the CRUD Operation like adding new raw ingredients, delete the ingredients from the list, update the price of items and view the received and delivered orders. Mail is sent to the user when the order has been placed by the user. (Invoice generation)

**User** can also do the the CRUD operation when he is placing the order. When he will place the order he would be notify with the invoice (email generation) notification from the admin side.

**2.2User characteristics**

* User can sign up with email id.
* After sign up he can login with the registered email and password.
* Now User can manage the operations like placing the order for the raw ingredients.
* User can check the list of all the items.
* User can update the cart by adding more items to the cart, deleting items from the cart.
* User can check the received and pending orders from the list
* User can manage their profile.
* User would be notified with the email from the admin when he will place the order.
* User can manage the address book where he wants to deliver the items
* User can view all the change done by the admin in real time.

**3 REQUIREMENTS** (Functional and Non-functional)

**3.1 FUNCTIONAL REQUIREMENTS**

|  |  |  |
| --- | --- | --- |
| REQUIREMENT  ID | REQUIREMENT  STATEMENT | MOSCOW  MUST,SHOULD,  COULD,WOULD |
| FR 1 | User must sign up and then login using his/her credentials for using the application. | MUST |
| FR 2 | User can order goods, see the list of pending ,received or delivered goods. | COULD |
| FR 3 | User should add the goods to the cart. | SHOULD |
| FR 4 | User could reset the password with the credentials used for signing up. | COULD |
| FR 5 | Special notifications should be sent and received for orders placed or delivered . | SHOULD |
| FR 6 | Admin should be able to manage CRUD operations. | MUST |
| FR 7 | Invoice should be generated automatically and send to the registered mail. | MUST |
| FR 8 | User can view a list of purchased items in the history. | COULD |
| FR 9 | Maintain right number of products in stock. | SHOULD |
| FR 10 | User can edit their personal information. | COULD |
| FR 11 | User can perform CRUD operations on their end by adding, Deleting Updating the items in the cart. | COULD |

**3.2 NON-FUNCTIONAL REQUIREMENTS**

A non-functional is essential to ensure the usability and effectiveness of the entire software system. Failing these requirements can result into failure of customer satisfaction.

**NFR 1 – USABILITY REQUIREMENTS**

The application should be easy to use for users working with restaurant industry, people who have knowledge of online shopping and someone who is fully capable of maintaining and managing the inventory operations . It should be designed in a way that users do not face any problems working with the application or understanding it.

**NFR 2 – PERFORMANCE REQUIREMENTS**

The application should reboot when not working properly without effecting the data of the user and saving it automatically. Bad execution results in negative feedback from the user. It should respond quickly to the user request.

**NFR 3 – IMPLEMENTATION REQUIREMENTS**

The functionalities of the application should be implemented using Android Studio 3.6.3, Fire-base and Just in mind 8.7.7.

**NFR 4 – PORTABILITY REQUIREMENTS**

The application should be able to work at all the versions of android (Oreo, nougat, marshmallow etc.).

**NFR 5 – PRIVACY REQUIREMENTS**

The application does not allow access to personal information to anyone else than the user or the administrator. Nobody can order, change or edit any information on the application without a successful login.

**NFR 6 – MAINTAINABILITY REQUIREMENTS**

The application should be easy to maintain for the administrator which means he should be able to make any kind of changes (in the prices of the products, he should be able to add or delete products) and these changes made should be made in real time which means for example as soon as there is a change in price of an item the if there is a user using the application, the new price will be reflected.

**NFR 7 – RELIABILITY REQUIREMENTS**

The application should be reliable for making payments for the customer account safety because lack of this could lead to negative feedback from the customers.