



**SAPIENZA**  
UNIVERSITÀ DI ROMA

**PROFESSOR : EMANUELE PANIZZI**

**PROJECT : KITCHEN INVENTORY**

**PROJECT TEAM**

**ANANDAKRISHNAN SIVARANJANE (1876942)**

**DECY JARALD**

**(1768722)**

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## **Abstract**

Our project is a real time implementation of mobile application using Android OS for better and easy management of a Kitchen Inventory that is targeted for any individual users or even small scale hotel industries or hostels or office canteens with some added features. Currently the food industry in general, homes, restaurant or hostel canteen are forced to keep track of inventory by hand. This means that they must count what they have used and what they have left at the end of each day. They must also restock their inventory in preparation for the next week. This wastes valuable man hours and is a rather simple task to automate using our software application. We propose a solution to this issue by developing software application that keeps track of inventory back at house or kitchen, and updates according to the daily usage. Each food item is linked to respective ingredients and as each ingredients utilized in making a product are also utilized. These changes in inventory are kept track of through utilizing a database. The project also makes smart predictions on required inventory for the following week based upon the predicted climate and possible occasions or events that may influence near future sales.

## **Project Overview:**

The following are the functions the proposed project is intended to do:

1. Tracking and management of an Inventory
2. Suggesting easy recipes with useful information such as nutritional value, duration, servings, etc., based on the user's preference by making optimal use of resources in the inventory.
3. An additional service to locate any nearest supermarket if there are any items missing in the inventory.
4. Keeping an extra stock of items for unexpected scenarios like

guest at home etc.

## **Project Phases**

The major phases of this project are described in detail below:

### **KICKOFF PHASE**

- Initial research on the type of targeted users based on country or language.
- Initial research on the type of cuisines to be included for the above mentioned type of user.
- Initial research on including supermarket details from Google using GPS
- Initial research on what types of items are found in different seasons.
- Records of an average consumption of items by the user.

### **DESIGN PHASE**

- The landing page of the application contains the following tabs:

#### **a) My Inventory:**

This gives the details of all items that are stored in the Inventory including

1. Name of the item with the brand
2. Quantity of particular brand item.
3. Expiry of the particular brand item.

Provision to add or delete items can be done manually by clicking on + or – buttons against the items.

Provision to add or delete quantity of the particular item

can be manually by clicking on + or – buttons against the quantity.

‘Scan QR Code’ helps the user to add details about Name and Expiry of the item automatically by scanning the item that is purchased from the market. Items that do not have QR Code may have to be added manually as mentioned before.

### **b) Re-order level**

This tab lists all the items that are missing or out of stock in the Inventory which will be notified to the user in the form of alarm. A button click ‘Remind me to buy’ may be used to help the user to choose if he needs to be reminded to buy the item as he approaches any supermarket nearby.

### **c) Recipes**

This tab gives a tile view of all recipes that can be used based on the available items in the inventory. The details included in the tile view are as follows:

1. Name of the recipe
2. Duration
3. Servings
4. No of calories
5. Ratings

When a recipe is selected, a more detailed description or a video on how to prepare the recipe is shown. If the user prepares the recipe, the Inventory Manager auto updates the ‘My Inventory’ tab and ‘Things to buy’ tab if necessary.

There may be some recipes which look faded in the bottom which says that currently it cannot be prepared due to lack of one or more items in the Inventory. There may be a button ‘Interested to try next time’ against this recipe by clicking on which the Inventory Manager updates ‘Things to buy’ tab for the missing items for the next purchase.

#### **d) Supermarket Locator**

This tab provides an additional service of notifying the user of whichever supermarkets are nearby based on the items in 'Things to buy' tab.

This list gives details about the supermarket based on the distance from the user, ratings, etc.

#### **e) Menu**

It is a category of meal you prefer to keep the recipe under.

## **The Purpose of the Project**

To keep track of their inventory levels we have to calculate a list of the groceries utilized during a course of time, calculate and analyze the requirements for the future, and purchase the next list of items if needed. This process takes up a lot of time and human effort, and is also prone to human error.

This poses a problem of a situation that the client or normal people as well as many other restaurants faces. It takes up a lot of time to manually keep track of consumption and place correct list of items to be brought. This application would assist in tackling the above mentioned problems would prove to be fruitful to clients. This would help convert the unproductive time to something more useful, by removing the unnecessary error prone complications and efforts.

## **CONCLUSION**

- Any user who uses this application can easily keep track of the items in his Inventory.
- Manage the stock in an efficient way so that every item usage is optimized.
- Prevents any wastage of items by alerting at an appropriate time before expiry
- Easy Reminders to purchase for the missing or out of stock items in his kitchen or Inventory
- Avoid uneasy situations when there are surprise visits of guests by already having cool recipes with available ingredients at hand.

## **Temporary apk Files Before getting the Final**

- <https://drive.google.com/file/d/1DDsTZxx9RhAYq3APFnrtkDPOiWnnelRH/view?usp=sharing>
- <https://drive.google.com/file/d/16JtbJ2qE-DE7tnVzxLtteeLAg9NCJE2k/view?usp=sharing>
- <https://drive.google.com/file/d/1OmdDtIPpIGMjDBwyTfeAwXFWlFqyTmsM/view?usp=sharing>