# An Interactive Food Planner App

**Chalasani Sethu Saketh Nadh, Nalubolu Likhith Kumar Reddy, Gajjala Ankit Nigam**

*Abstract: This model will define the design of the automated timetable generation program. It contains explicit data about the normal info and yield and the modules. The communication between the modules to meet the necessities we need is delineated. We can prepare the list of food for dinner, lunch or breakfast and keep sharing with the friends. We can suggest our friends and family to taste the food in a certain restaurant. Also while sharing the food we can tag the food with various tag lines such as #easytocook #fastfood etc. This app is very useful to plan your food timings, a healthy diet can be maintained to lead a happy life. This model shows the images of the food and also gives a brief description of restaurant whether it is a suitable place for the person's status.*

*Keywords: SQL Lite, JDK, GUI*

## I. INTRODUCTION

The aim of this project is to develop an android application that aims to maintain a diary related, to store favorite foods in the database. Later we can prepare the list of food for dinner, lunch or breakfast and keep sharing with the friends. Also while sharing the food we can tag the food with various available options like #EasyToCook, #LowCa1orie, #FastFood, #TimeTaking, etc. To provide 24/7 service to all users. To provide secure logins to all the users, to display pictures of the food to the user, to let user post pictures of his food through whatsapp, to provide a portable product which is available to all, to keep track of data using database. This system will consist of two parts one, the mobile application and the other, database. The mobile application will be used to take the pictures using the camera/taken directly from the gallery when hash tags are added to the food items. Since this is a data-centric product it will need somewhere to store the data. For that a database will be used. The mobile application will communicate with the database [1]. The details of the list of food items is stored in the database and accessed when needed. You can schedule the food item whether it is for

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breakfast, lunch or dinner. Hence you can filter the food items either by the schedule by the use of hashtags as per the need. These incremental stages enable us to comprehend different modules of the task that we should focus on. In the beginning period of necessity investigation, the prerequisites and particular of the product are gathered. For the plan of the framework, the top of the line capacities are composed are utilized as structure for the venture to be founded on. In the following stage, coding of the product is done totally for the arranged usefulness to be acquainted with the framework.

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The application developed is named Foodie. It is a food-planning app with many functionalities. It allows the users to maintain the list of their favorite food items. It facilitates the user to plan his diet by saving what he should eat for the breakfast/lunch/dinner.

You can save the food item-along with its image taken from gallery or using the camera. Hash tags can also be added as filters to your food item as #LowCalorie, #Hea1thy, #Tasty etc.

This app facilitates its users to share your diet details/plans directly with your pals through Social networking like Facebook, Whatsapp etc. Till date there is no such app on the Google Play Store, Apple Store. Hence this app is unique and one of its kind which grabs the interest of food- lovers and also of those people who follow strict diet regime [3].

This project is an android app related to our food preferences and is not a follow up anything. This is the first version of the app we are developing. Our app is intended to run on the android devices this is a new, self-contained product.

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The mobile application will be used to take the pictures using the camera/taken directly from the gallery. Then hash tags are added to the food items. Once this is a data-centric product it will need somewhere to store the data. For that, a database will be used. The mobile application will communicate with the database [4].

The details of the list of food items is stored in the database and accessed when needed. You can schedule the food item whether it is for breakfast, lunch or dinner, Hence you can filter the food items either by the schedule/ by the use of hashtags as per the need.

This project is aimed to be used by all regardless of their age, sex and qualification [8]. It will be designed in a way that an illiterate can also make use of this product. But this certainly aims at the youth of the society as they are the people who frequently use the social sharing apps. So this app focuses mainly to attract younger generation and students of the society - especially for those who love food or follow strict diet regime on a daily basis.

A first-time client of the application sees the login page when he/she opens the application if the client has not enlisted, he/she ought to have the option to do that on the sign in page. In the event that the client can't first-time client, he/she ought to have the option to see the search page directly when the application is opened. The user can add any food item of his/her choice into the database. He can add any food item in the database as per his schedule to the sub-divisions viz, breakfast, lunch or dinner. Since the mobile application doesn't have any designated hardware, it doesn't have any direct hardware interfaces [7].

The hardware connection to the database server is controlled by the underlying operating system on the mobile phone. We used SQLite as the data base handling technique, I think SQLite is one of the best database handlers. SQLite takes care of the space criterion, database generation and saving of the data of the particular type. The communication between the database and the mobile application consists of a task about both regarding and modifying the data. The communication between the different parts of the system is important since they depend on each other [9].

However, how the communication is achieved is not important for the system and is therefore handled by the underlying operating systems for both the mobile applications and the web portal, security or encryption issues, data transfer rates and synchronization mechanisms. The app provides with a user-login initially as a safe requirement. The user must login in order to make use of the android app.

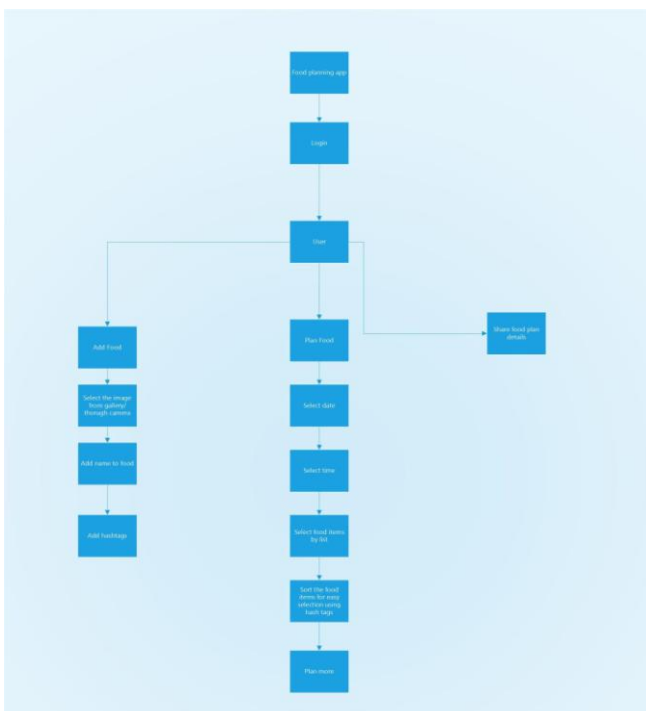Architecture: The following picture illustrates the architecture of the whole system.

**Figure 1. Architecture diagram**

## II. PRODUCT FUNCTIONS

### A. Add Food
- Select Image of food from camera OR click from camera.
- Add name to the food image.
- Tag the food from the available list - #Low-Calorie, #Snacks, #EasyToCook etc.

### B. Food List
- Shows list of all the foods saved in database with name.

### C. Plan Food
- Select the date for which you want to plan (by default the current/today's date is selected).
- Select the food time - Breakfast /Lunch /Dinner
- Select the food from the list of foods.
- Sort the list of foods by selecting multiple tags.
- Save the planned food.
- Share the food planning on any app with text sharing capability like - whatsapp/facebook etc.

## III. FUNCTIONAL REQUIREMENTS

Login using user id and password. If it is a new user you must register prior using the application

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## IV. NONFUNCTIONAL REQUIREMENTS

### A. Performance Requirements
- App must store the image even of more size than 5MB.
- App must store at least 250+ foods depending the free space available on phone / SD card on android device.
- App must load the food list within 3 sec's from the database.

- The app is scalable to add more tags in the tag list.
- The app must all allow sharing the food planning with all the text share capability app installed on the android device and list them.
- The app must allow planning of food the particular date for food time - breakfast, lunch, dinner, others.
- If the all food times are planned for a date the app will give the information of that the all planning is done for the day.
- The app must list the history of all food planning's in less than 3 sec's in the latest first sorted order.

## V. SECURITY & OTHER REQUIREMENTS

The app provides with a user-login initially as a safety requirement. The user must login in order to make use of the android app. If the user is unregistered, he has to register in order to make use of the foodie app.

### A. Operational Requirements:

- Install the Apk file for the application.
- Ensure the device has the setting enable to install the apk from unknown resources.
- The apk must ask for permission dialogs to access pictures and videos and camera settings in Versions Marshmallow and Nougat.
- To exit the app user needs to press the back button.
- To go to the previous options within the application the user can either use back button or the top left arrow to go back.

### B. Other Requirements:

- Technology Used: Java, Android, Sqlite, Material Design
- Software Required: Android Studio 2.0
- Add food: Allows us to add the new food items, their names and hashtags to the database.
- Plan food: Allows the user to plan his schedule – date, time and the food items he wishes to eat.
- Share food: Allows the user to share his food plan to his pals using social networking. Social networking
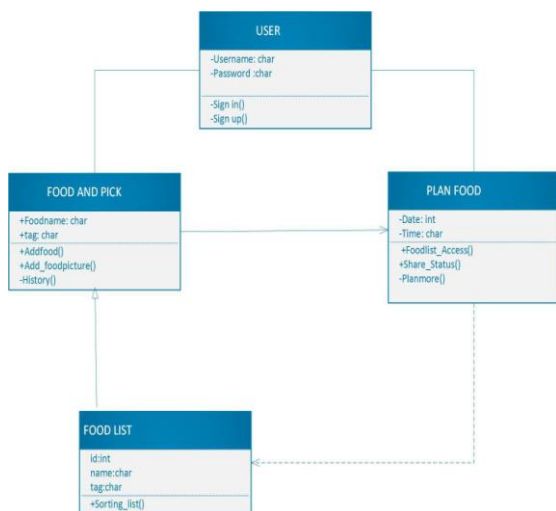


websites include Whatsapp, Facebook, Instagram, Twitter.

**Figure 2. Class Diagram**

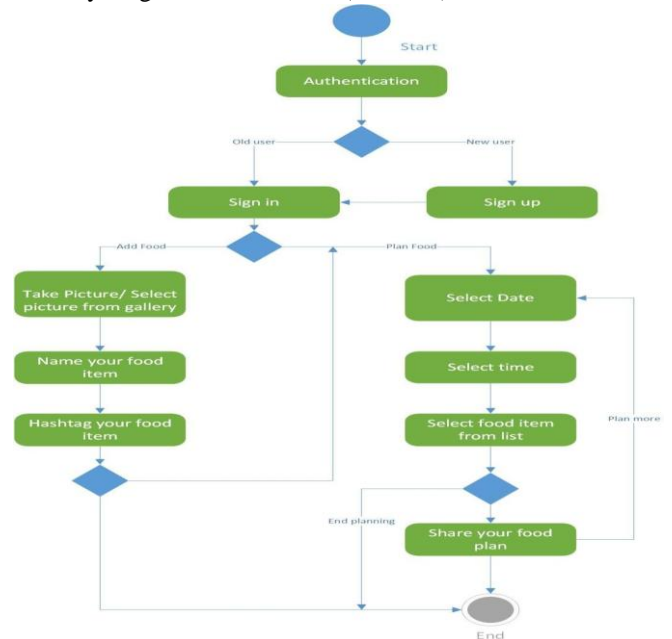Activity diagram for the client (end user),



**Figure 3. Activity diagram**

## VI. REQUIREMENTS, LIMITATIONS & CONSTRAINTS

In developing the food planning app in order for the system to work properly the internet connection should be available by the user. The user should have a basic knowledge of how to use an application in an android environment. The user should know the basic knowledge of how to browse the internet. Internet Connectivity is issue in India hence availability of internet connection is a major limitation.

### A. Testing issues:

First some major courses would be added to the database, so that the user gets some suggestions when opening the application for the firsttime.

Only after all the databases work properly cross references of databases will be used in order to provide the appropriate results for the searchquery.

Only after the satisfactory working of all the modules including the functions mentioned above, we went for additional features such as allowing user to post attendance and to marks to students. After every phase has been tested out, we did systemtesting.

### B. User interface design:

The users that interact with the system via database for data updating or upload purposes shall interact with the help of an input and output screen where the user will be asked several fields.

### C. Expected Input:

- For user Registration
Name
Password

- For Login
Username
Password

## VII. RESULT AND DISCUSSION

The user will be able to see the next screen if the initials entered matches with the database, if not the user will get a pop up message to retry and get a help screen in case of registration and using the application or forgot password option in case of login error.



**Figure 4. Login page**

### A. An example how the app works:

- **Login:** The above diagram illustrates the login page of the app.
- **Add Food:** This picture illustrates the addition of food items one by one in the menu.
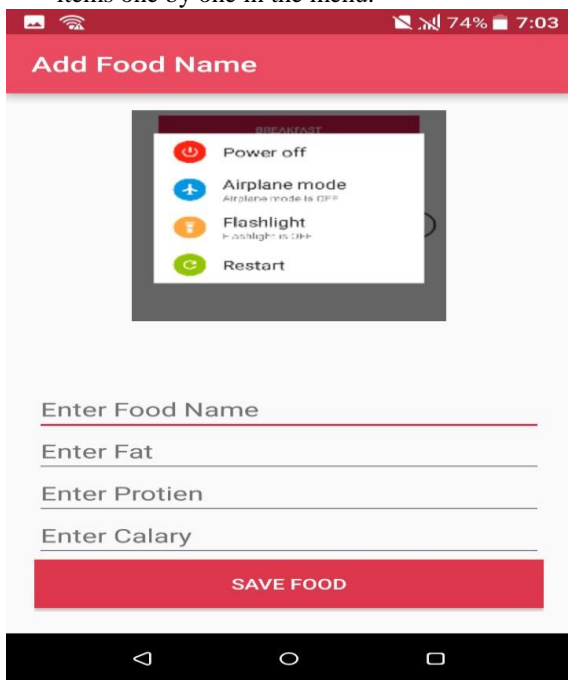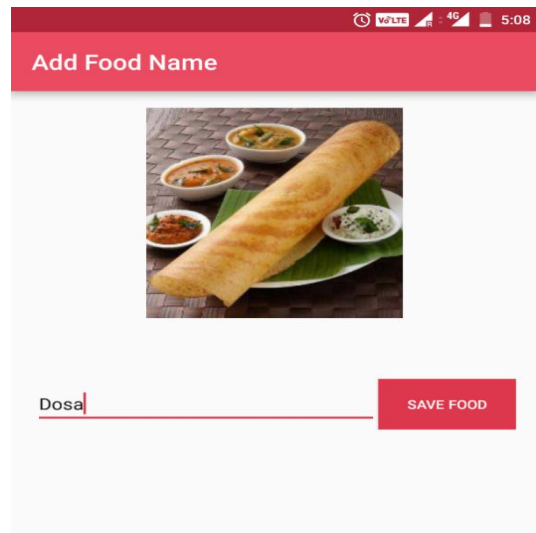


**Figure 5. Adding details**



**Figure 6. Adding food**

### B. Planned food:

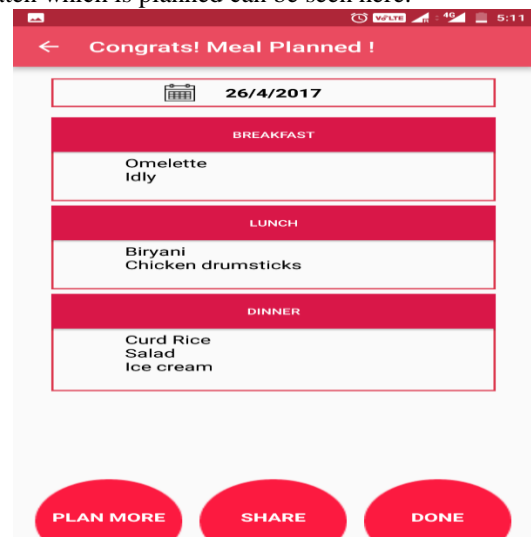This picture shows the time table of the food. The food to be eaten which is planned can be seen here.



**Figure 7. Plan food**

### C. Date and time:

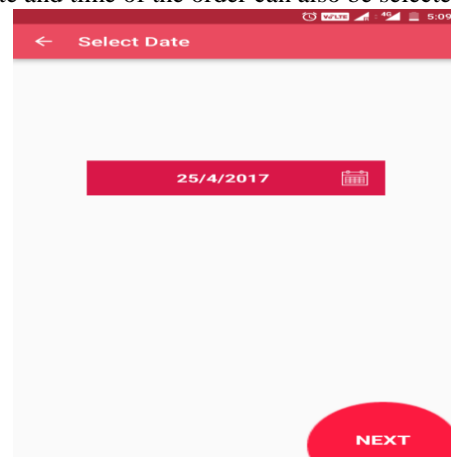The date and time of the order can also be selected.
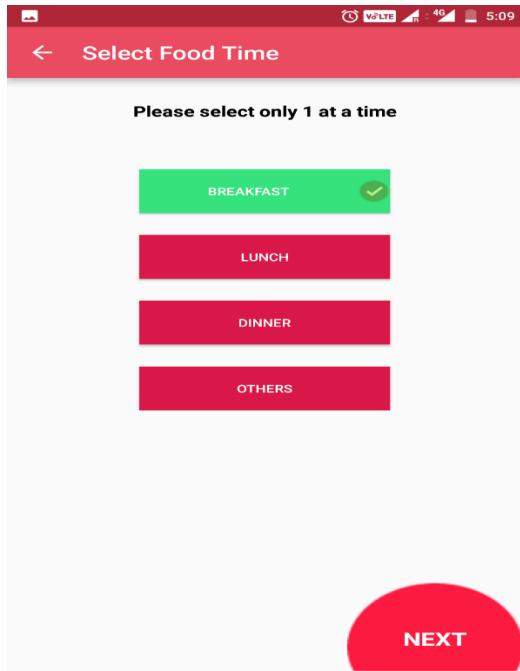


**Figure 8. Order date**

**Figure 9. Selection of food**

### D. Tag the food:
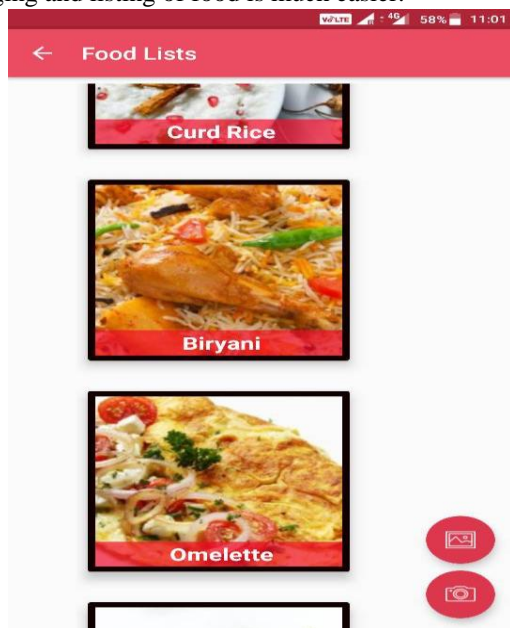
Tagging and listing of food is much easier.



**Figure 10. Type of food**

## VIII. CONCLUSION

In this paper we defined the design of automated time table generation program. It is contained with the information about the expected input, output and the modules. This app helped in preparing list of food items which we can accordingly plan for our diet and can even share with our friends. A healthy diet can be maintained by using this app. Furthermore, we want to extend this work by calculating the calorie intake, preparing diet plan for people suffering from illness by physicians and comparative analysis of calorie intake from your group created. This app helps people in maintaining a healthy lifestyle.

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