Android Food Detection using Image Classification App

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Abstract: Our generation relies mostly on phones to get through the day. Due to this, phones have become more of a personal assistant than a means to just communicate. Keeping this thing in mind we wanted to use the concept of a phone as a personal assistant for helping the users to cook like a master even when they don’t know a thing about cooking. The system is an Android Application. An app that will detect the food and find out best recipes which can be made by that food, an app that will serve those with a craving for specific homely dishes and wants it prepared at their home. The app will include the list of verified home chefs who are experts in particular dishes. The app will be suitable for urban customers who are missing their homes. The app can integrate booking the chef, sharing location to the user, and providing a route map to the chef to locate the user’s apartment.

Keywords – Food Detection, UI, Recipes, Chef Booking.

I. INTRODUCTION

Food is important for physical and mental well-being. It is more than just a primary factor for survival for some, for others, it is a major factor which can change a grumpy mood into frivolous one. After a long day of work, or a hectic schedule people want to come home eat food and relax. Surely takeouts are easy and delicious but home-cooked meal has its own flavor and satisfaction. To find a proper source of learning to cook for a beginner is difficult. That’s why we have come up with the idea of cooking recipe app which provides users with step-by-step recipes to make the task of preparing a meal less hectic. It will also help a person who is in a new country and does not know about the food, he can detect the food and get the recipes that can be made by the food which is detected.

II. LITERATURE REVIEW

After going through many research paper and apps on the google play store we found that there is no application which detects food. 2. There are some apps which lists recipes only but it does not have interaction between the chefs. 3. Some app just shows the nutrition value within the food but not the recipes or how to make it step by step. 4. There is app called chef buddy which manages food business, track orders and sell food on chat.
III. SYSTEM DESIGN

III.1 BLOCK DIAGRAM

Figure 1. Block Diagram

III.2 FLOWCHART

Figure 2. Flow Diagram for working of Food Detection app
III. III CONCEPT OF THE SYSTEM

System provides user friendly interface and beautiful UI/UX experience. Our System will consist of two parts: Normal user and Chef/people (who want to show their cooking skills).

Normal User can look for the recipes and they can also scan the food and get the best recipes listed and can also book a chef. Other User (Chef/Customer) who wants to show their cooking skills they can post their recipes and videos and those who have experienced can start an freelancing carrier.

Software Requirement
I. Android SDK
II. Kotlin SDK
III. Database-Firebase Database
IV. Software-Android Studio 4.1.2

IV. IMPLEMENTATION

V. I INTERFACE DESIGN FOR CHEF:
The system provides a user-friendly interface and a beautiful UI/UX experience. Our system will consist of two parts: Normal Users and Chef (who want to show their cooking skills). Normal Users can look for the recipes and they can also book a chef. Other Users (chefs) who want to show their cooking skills can post their recipes and those who have experience can start a freelancing carrier.
**CAPTURE YOUR DISH**
Take your phone out and click the best-looking picture of your dish.

**SHARE YOUR RECIPE WITH THE WORLD**
Give the main ingredient used in the dish and step by step guide on how you made your amazing dish.

**Step 1**
**Dish Photo**
- **Dish Name**: Indian Chicken Curry (Murgh Karai)
- **Main Ingredient**: Chicken
- **Ingredient List**:
  - 1.2 pounds skinless
  - 2 teaspoons salt
  - 3%ma cooking oil
- **Dish Direction**:
  - Step 1: Sprinkle the chickenbreast with 2 teaspoons salt.
  - Step 2: Heat the oil in a large skillet over high heat; partially cook the chicken in the oil for 1 hand, will complete binding.
  - Transfer the browned chicken breast to a plate and set it aside.
VI. CONCLUSIONS

We have developed this Personal Chef application which is having a user-friendly interface and is going to open new opportunities for those who are passionate about cooking. The main purpose of this application is to help the person who goes to an international country for higher education or work and misses his country food or is struggling to understand the country food which he is living in. As we get the feedback from the user side further improvements will be incorporated within the application to make it more user-friendly.

REFERENCES


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