INDY-9 Blue — MyFoodScan Web App
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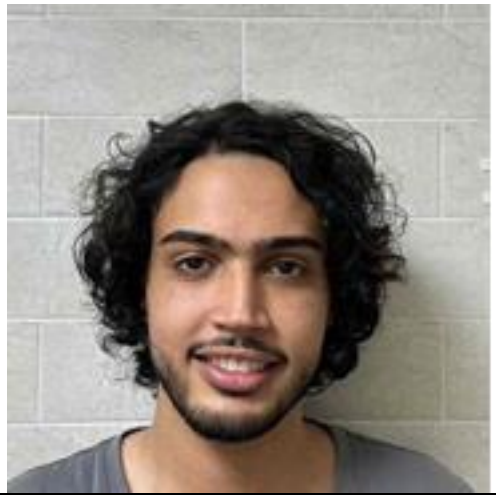
Mohamad 	

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1.0 Introduction

1.1 Overview

Finding foods that cater to specific dietary laws like Halal and Kosher can be a challenge, especially for travelers or those in unfamiliar locales. MyfoodScan web app will allow users to lookup ceratin products based off what they look up and the application will give them brands and items that specifically follow those restrictions.

1.2 Project Goals

The web application will feature user profiles where individuals are able to lookup certain brands and foods to see if they follow restrictions, allowing for an inclusive experience. The goal of the web app Is to provide users with the opportunity to lookup certain products and check if it aligns with their dietary needs. Another goal is to create the app with a user-friendly platform to empower and boost the confidence of shoppers with dietary restrictions.

1.3 Definitions and Acronyms

Definitions
Kosher: Refers to Jewish dietary restrictions
Vegan: Individuals who do not consume any food sourced from animals or use products derived from animals
Halal: Refers to Islamic dietary restrictions
Vegetarian: Individuals who do not eat meat
Acronyms
API: Application Programming Interface
UX: User Experience
UI: User Interface

1.4 Assumptions

The first assumption is that users are connected to the internet and can operate any operating system a. Another is that users have previous experience with similar technology and familiarity with certain web functions (navigating between pages, searching products, exiting web pages, etc.).

2.0 Design Constraints

2.1 Environment

The MyFoodScan app will run in a web browser and is compatible with popular browsers such as Chrome, Firefox, and Safari.

The backend system will be hosted on FireBase, which uses cloud architecture for scalability and stability.

The application's frontend will be built with JavaScript (JS) to provide dynamic and interactive user experiences.

2.2 User Characteristics

The MyFoodScan web app's target customers include people who observe certain dietary regulations like Halal and Kosher, as well as travelers, tourists, and locals looking for food products that meet their dietary restrictions.

Users' technical skills might vary, ranging from casual internet users to highly experienced persons.

2.3 System

The MyFoodScan web app will be developed to manage a high volume of concurrent user queries while being responsive and reliable during peak usage periods.

3.0 Functional Requirements

(list the design, graphic, and operating system requirements nd list any constraints here and assign them numbers like 2.1, 2.2, etc)

3.1Login With Password & User Authentication

3.1.1 Account Creation: Users can register utilizing their emails, passwords, and selection of screen names. The procedure, with email verification in line with security will be involved in it.

3.1.2 Login: The clients can login through their email and password. Adding "Remember Me" function to relieve login stress for returning users.

3.1.3 Password Recovery: If case the user fails to remember his or her password, then they will be allowed to recover password via a registered email.

3.2 User Profile Management

3.2.1 Profile Customization: Users can adapt their menu to their diet by creating a reservation in the profiles with dietary preferences (Halal, Kosher, Vegan and Vegetarian) for their individual search results.

3.2.2 Search History: The app will keep the users search history safe to allow them to easily access previously found parts.

3.2.3 Favorites: The consumers can save their favorite brands and products whereas for the purpose it is very much beneficial saving their time.

3.3 Beneficial Application

3.3.1 Product Search: People can locate items by specific name, brand or by sorting them into a particular category. This search engine will be programmed to understands expressions of the dietary laws of each teaching.

3.3.2 Advanced Filters: Besides using the basic search function, people can apply filters for the sake of narrowing down the search.

3.4 Product Information and the Verification Tests

3.4.1 Detailed Product Information: Information like ingredients, dietary certification, use reviews, and user ratings will be listed on each product page completely.

3.4.2 Certification Verification: Links or confirmation seals for Halal, Kosher, Vegan or Vegetarian authentication certificates to guarantee reliability. Popularizing and implementing diesel soot cleaners is an important aspect of reducing air pollution in urban areas.

3.5 Homepage and Navigation

3.5.1 Display Home Page: Home page will show up a clean and user-friendly interface via which one can easily access search, dietary filters, and previous searches while at the same time enjoying a great user experience.

3.5.2 Navigation Menu: Designing a reactive menu allowing the user to upon different subheadings such as Home, Search, Favorites, Profile as well as About Us.

4.0 Non-Functional Requirements

4.1Performance

The system is optimized for a quick start during which it's able to run up to its power in only 5 seconds. It performs under active operation in the same way, and this is so even as there are many users consuming large data size at the same time. In this case, the system does not slow down or crash.

4.2 Capacity

It should be possible for the system to support a sizable number of concurrent user sessions without seeing a noticeable drop in performance.

4.3 Usability

Users with different degrees of technical expertise should be able to easily navigate and use the user interface.

4.4 Reliability

We will ensure that the system is always accessible anytime the user has an internet connection to guarantee successful launch of the app. Users profile once set will be safely secure for you to visit and make edits when needed. Also, expect to work offline as well by seeing the application work fully offline. Also, the camera access also permits the scanner to operate in a consistent fashion, with the scanning always done correctly, through the correct scan of the barcodes of the food items.

5.0 External Interface Requirements

5.1 Hardware Interface Requirements

There are no specific hardware requirements. Users can use this on any device if they're able to connect to the web.

5.3 Software Interface Requirements

The user interface should be responsive and adaptive to multiple screen sizes, such as PCs, tablets, and smartphones.

Visual design aspects should be consistent and visually appealing, hence improving the entire user experience.

5.4 Communication Interface Requirements

Email communication is required if the users forget their passwords. HTTP protocol will be used for the webapp in conjunction with Google Firebase. API communication to OpenFoodFacts is also used to retrieve nutrition data.