



REQUIREMENTS ANALYSIS DOCUMENT

Group 4348

Company Name: Foodle

1. Introduction:

The purpose of this document is to outline the requirements of the development of Foodle an environmentally sustainable student focused recipe website. Foodle aims to connect students within Exeter university accommodations to sustainable recipes to avoid the negative environmental externalities associated with food consumption.

2. Functional Requirements:

Users:

- Student user registration and profile management including:
 - Create account.
 - Delete account.
 - View Foodle game score (and associated rank)
 - View Environmental score (and associated rank)
- Student user play Foodle word guessing game.
- Student user accommodation kitchen group membership management including:
 - Join a group through a QR code in accommodation kitchen.
 - Leave group.
- Recipe functionality including:
 - Create a new recipe.
 - Browse/search through all recipes on Foodle.
 - View individual recipe.
- Meal Event functionality including:
 - Create a Meal Event for your group/self.
 - View Meal Events for your group/self.

Admins:

- Accommodation kitchen groups management including:
 - Create group with a given name.
 - Generate a QR code for a created group (used by student users to join group)
- Student user management:
 - Delete user.
- Recipe management:
 - Create a new recipe.
 - Browse/search through all recipes on Foodle.
 - View individual recipe.
 - Delete Recipe
- Admin user management:
 - Create a new admin user.

3. Non-Functional Requirements

- The platform must have robust security to protect user data.
 - Platform performance: the platform will be accessed by mobile devices it must be fast and responsive.
 - Platform usability: the platform must be intuitive and simple to use it should not be too complex else it risks scaring away users.
 - The platform must promote environmentally sustainable consumption habits.
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4. Constraints

- Timeline: The project has a short timeline. This necessitates efficient project management and timely delivery of implemented features.
- Limited user base: Since student users must be within Exeter accommodations this restricts userbase and adds reliance on Exeter accommodation leaders.

Regulatory Compliance: The platform must comply with relevant regulations and standards, including data protection laws.

5. Assumptions

- Exeter accommodations all contain sufficient kitchen appliances (ovens, fridges, stoves etc.) for students to effectively use Foodle platform.
- Exeter university accommodation leaders would be willing to manage kitchen groups (create groups and distribute QR codes to kitchens within accommodation)
- Student users have access to internet-enabled smartphones to access Foodle platform.
- Student users within Exeter university accommodations are located close enough to grocery stores to effectively use Foodle platform.

(29/02/2024)

6. GDPR

Our app follows the GDPR guidelines in the following ways:

- only collects the data that is needed and explicitly says
- Obtains explicit consent from users before collecting their data
- Users can request access to their personal data
- Users can request correction of inaccurate personal data
- Users can request the deletion of their personal data
- implemented appropriate technical and organisational measures to ensure a level of security
- Ensure data protection

7. Ethics of our app

Ethical decisions we have made:

- Calculates the environmental sustainability of ingredients used in each meal
- Encourages users to be environmentally sustainable through the use of a leaderboard (competition)
- It considers users' allergies by demonstrating on the table what allergens are in each ingredient.
- Our app encourages people to reduce carbon emissions, which significantly influences global warming.
- Collects only the data necessary for the app's functionality.
- The idea of coming together could help improve mental health in students which is a serious concern.

8. Tools used to make our app and why

Django:

1. Rapid development: helps us take apps from concept to completion as quickly as possible. It includes many built-in features that are standard to web applications, meaning less time is spent on boilerplate code.
2. Highly scalable: Django uses a component-based “shared-nothing” architecture, meaning each part of the architecture is independent of the others. This makes it easy to scale an application and provides more flexibility in dealing with traffic spikes.
3. Security: Security is a crucial focus for Django. It helped us avoid common security mistakes by providing an engineered framework to “do the right things” to protect websites automatically.
4. Versatility: This can be used for almost any type of website.

Pillow and qrcode:

qrcode:

- It allows you to create QR codes programmatically, specifying content like URLs, text, or other data, and customise various aspects of the generated QR code, such as size, colour, error correction level, and encoding mode.

Pillow:

- Pillow provided us with functionalities for opening, manipulating, and saving many different image file formats.

AWS:

- Provides scalability
- Cost effective
- Its reliable
- Its secure
- Its flexible