

UI DOCUMENTATION

Group 4348

App Name: Foodle

For a live demonstration of our webapp, please go to:

<https://53wxmcyt32.eu-west-2.awsapprunner.com/>

1. Aesthetic:

As previously mentioned in the documentation provided with our first sprint, we intended to focus more significantly on aesthetics in this second sprint, and keep the look of our initial demonstration basic and focus on implementing client feedback. As such, this sprint focussed significantly on making our UI more aesthetically appealing. This was accomplished primarily through Bootstrap, a tool we felt justified in using given the rapid development nature of an Agile framework.

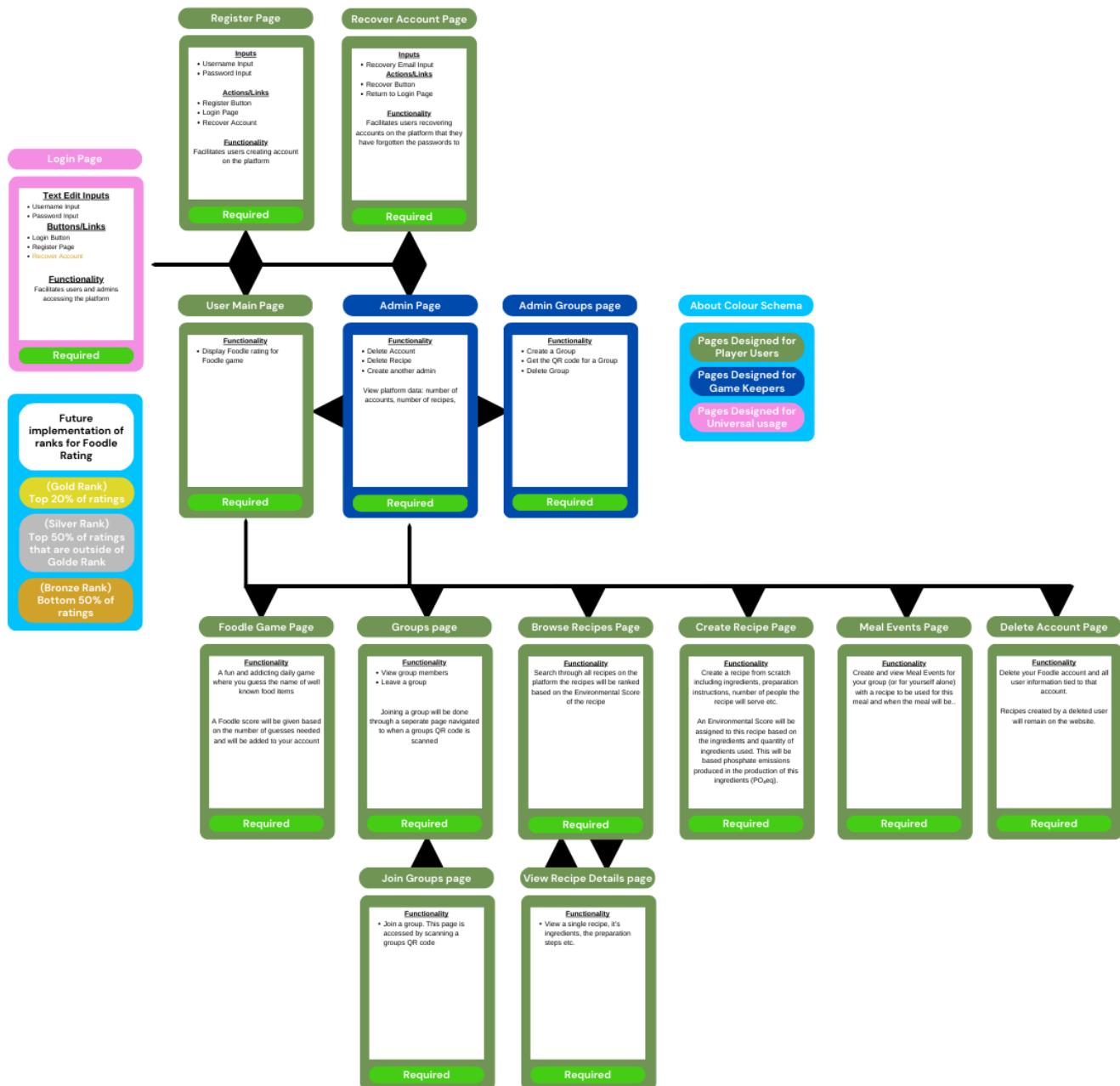
2. Web Page Structure:

Our app currently consists of the following web pages:

Page	URL Format	Notes
Welcome	/foodle/welcome	
User Registration	/accounts/register	
Terms	/accounts/terms	
Login	/accounts/login	
Logout	/accounts/logout	Requires an authenticated session
Delete Account	/accounts/delete_account	Requires an authenticated session
Password Reset	/accounts/password_reset	Requires an authenticated session
Password Reset Done	/accounts/password_reset_done	Requires an authenticated session
Password Reset Confirm	/accounts/password_confirm/<uidb64>/<token>	Requires an authenticated session
Password Reset Complete	/accounts/password_reset_complete	Requires an authenticated session
Join Group	/join_group/<group_name>	Requires an authenticated session
Home	/foodle/home	Requires an authenticated session
Play	/foodle/play	Requires an authenticated session
Leaderboard	/foodle/leaderboard	Requires an authenticated session
View All Recipes	/recipes	Requires an authenticated session
View Individual Recipe	/recipes/<recipe_id>	Requires an authenticated session
Create Recipe	/recipes/create	Requires an authenticated session

Group Cooks	/foodle/group-cooks	Requires an authenticated session & Group
Create Group Cook	/foodle/group-cooks/create	Requires an authenticated session & Group
No Group	/foodle/no_group	
Admin	/admin	Requires an admin session
Create Group	/foodle/createGroup	Requires an admin session
Get QR Code	/foodle/getQrCode	Requires an admin session

These pages are linked together as demonstrated by this diagram, which we used as a reference throughout the development process:



3. Specific Pages

3.1. Welcome

The welcome page is the first page a new user will see upon accessing the app. It provides the users the links to login or register, both of which are necessary for a user to effectively interact with the site.

The welcome page is also the page a user will be redirected to when attempting to access a page which requires authentication.

3.2. User Registration

The registration page allows a new user to create an account. Currently, the registration form has five fields: username, email, password, password confirmation, and terms and conditions agreement. This is the minimum amount of user information we deem necessary, as required by GDPR.

The form adapt Django's built in user registration form by simply adding an email input. This comes with the advantage of built in handling of unsafe passwords, repeated usernames, and incorrectly formatted emails. Furthermore, agreement to our terms and conditions, which are linked to on the registration page, is required to create an account.

On the backend, upon creating a new user, two fields (foodel score and environmental score) is added to the user's profile. Once a user registers successfully, they are redirected back to the login page where they can login with their new account.

In the database, passwords are hashed and salted automatically with the industry standard SHA256 algorithm, allowing us to easily implement password handling without designing our own security systems.

3.3. Terms

The terms page provides a plain HTML text of our terms and conditions. While Group 4348 have no legal experience, we aimed to provide a rough outline of the types of information which might be included in a real T&Cs page, including how we process data, the data we require from a user, and the user's rights.

Please note that we expect the client to update these terms and condition with their own, legally sound version.

3.4. Login

The login page allows a user to start an authenticated session by providing a valid set of login details (a username and password) and pressing the login button. If one or more of these fields is provided incorrectly, the page will simply reload. The user is also provided a link to the registration page in the event that they do not have an account, and a link to the

password reset page if they have forgotten their password. Upon a successful login, the user is redirected to their homepage.

In future iterations, we aim to streamline the login process by displaying messages when some error occurs while logging in, such as if a user provides an incorrect username or password.

For use by the client, we have created a test user which is part of the ‘Lafrowda Kitchen 1’ group with the details:

Username: test_user

Password: testPassword

3.5. Password Reset

The password reset page provides the user the ability to begin the password reset process. The page simply displays a message, instructing the user to enter the email address of their account into an input box. Once a correctly formatted email is inputted, the user can submit it to receive a password reset link. The user is then redirected to the Password Reset Done page.

Password reset links are sent to a user’s email from the email address foodle.devteam@gmail.com. For the benefit of the client, this email address has the following details:

Address: foodle.devteam@gmail.com

Password: Foodle123

Application Password: bmbuiwhebrnwkrub

For security reasons, the password reset page will always behave as if the email address entered is that of a user. This is so that a potential attacker has no way of getting information from this page, such as the email addresses of our users.

3.6. Password Reset Done

The password reset done page is the page a user is redirected to after submitting a valid email address in the password reset page. It simply displays a message informing the user that a password reset email has been sent to their email address.

3.7. Password Reset Confirm

The password resent confirm page is the page which users trying to reset their password are given an email link to. It consists of two input boxes for a used to input their new password into. These password inputs have of the same basic security checks as the registration password boxes. Once a valid new password has been submitted, the user is redirected to the password reset complete page.

This page and the links to it are make using Django’s built in password reset tools, which include the use of ubdi64 user ID numbers and a user ID token as attributes in the links to

reset passwords. This provides a layer of authentication. Furthermore, as soon as a password reset link is user, it becomes invalid, and an error message is displayed on the password reset confirm page.

3.8. Password Reset Complete

The password reset complete page is the page users are redirected to after a successful password reset. It simply displays a message information the user that their reset was successful, and provides a link to log in with their new password.

3.9. Logout

The logout page ends a user's authenticated session, and offers them a link to log back in. Attempting to access this page directly through a URL will result in a 404 error, as a logout requires a direct jump from a logged in session, which a URL does not guarantee.

3.10. Delete Account

The delete account page allows a user to delete their account. It consists of a "confirm" button as well as a link back to the home page. Upon account deletion, the user is redirected to the welcome page.

When the user chooses to delete their account, we erase all personally identifiable information the user provides us from our database, as required by GDPR. Note, however, that user created recipes remain on the site in an anonymised form, as explained in our Terms & Conditions.

3.11. Join Group

The join group page is a purely functional page, and therefore will not display anything to the user in its default use case. Instead, the join group page is designed to allow a logged in user to scan a QR code within their kitchen, which then takes them to a join group page with a specific GET parameter corresponding to that kitchen's group. The server backend then uses this parameter to add the user to that kitchen's group, before redirecting them to their custom home page. This allows us to fulfil the locational aspect of our application. If a user is already in a group, they are given the option to leave their current group and join the one referenced by their GET request. If a user tries to join a group from an unauthenticated session, they are redirected to the welcome page.

3.12. Home

The home page serves as the hub for each user, from which they can access every aspect of our web-app. We aim to provide instant motivation to each user by displaying their current score prominently next to their username, and also providing easy access to all our gamified features, including the Foodle game, creating cooking events, and accessing the leader board.

In future version release cycles, we hope for recipes to become a more competitive aspect of our app, making the home page act even more as the hub of gamification and user incentives.

3.13. Play

The play page hosts our repurposed Wordle game, “Foodle”. On it, play the game just like Wordle, but using a custom dictionary of 5 letter foods instead. Unlike Wordle, we allow users to play the game again if they win, and also choose a random word from the dictionary instead of giving every user the same word.

Points are gained for correct answers, with fewer guesses taken corresponding to more points. A user can choose to stop playing and submit their score by pressing a button, which adds their Foodle score to their overall profile’s score.

In future version release cycles, we aim to increase the temporal aspect of the Foodle game by allowing users to play just once a day. We believe this will further encourage interaction with the app through routine, daily behaviour. Furthermore, we intend to further integrate the Foodle game with other aspects of the app by, for example, awarding extra points for creating recipes with the Foodle answers as ingredients.

3.14. Leaderboard

The leaderboard displays up to the top 100 users on the web app by combined environmental and foodle score. We chose to display only 100 users to create a more aura of supremacy to which users can aim for, further encouraging interaction with the app. For simplicity, we chose to combine the Foodle and Environmental scores, but the backend design allows for easy separation of these attributes in the future. Environmental score is calculated based on the scores of the user’s group meal events which have already taken place.

3.15. View All Recipes

The view all recipes page displays every recipe in the recipes database, with a condensed selection of attributes we deemed most important: name; preparation time; serves number; allergens; creator; environmental score.

The recipes name provide links to view the recipes in greater detail in custom “view individual recipe” pages.

In response to experience testing feedback, we have implemented the allergens attribute of each recipe, allowing a user with allergies to easily filter out recipes unsuitable for their dietary requirements and avoiding any ethical issues.

For use by the client, we have created an example Paella recipe.

3.16. View Individual Recipe

The view individual recipe page takes a recipe id attribute in a GET request, and returns a viewing page with all the recipe details including ingredients and preparation. This page is designed to help users decide if they want to cook a certain recipe, as well as to use as a guide when making the recipe.

Like the View All Recipes page, we now display the allergens in the recipe as an attribute, making our website more compatible for users with dietary requirements due to medical or religious reasons.

3.17. Create Recipe

The Create recipe page is used by authenticated users to upload new recipes to the web app. It takes text fields “Title” and “Preparation” and integer fields “Serves” and “Prep Time”. To select ingredients, users can check to see what ingredients we have in our database of sulphate scored foods. If one of our scored foods is selected, users can enter a quantity before clicking add ingredient, which adds the ingredient and quantity to a list of displayed ingredients. If the user wishes to add an ingredient not in the database, they need simply select the “Other” option, type the ingredient name in the other ingredient box, provide a quantity and then add the ingredient.

This system helps to integrate user recipes with our sulphate emission based scoring system, but can become tedious when creating a long recipe. In future version release cycles, we aim to streamline this process and also allow users to remove ingredients mistakenly added.

3.18. Group Cooks

The Group cooks page displays all the group cooking events planned within a user’s group, including the user cooking, the recipe being cooked (which links to the recipe viewing page), the datetime of the event, and the event’s environmental score. This score is calculated based on the number of users in the group, as well as the sulphate emissions of the recipe. Group cooks are displayed in order of date.

User’s must be members of a group to access this group cooks page. If a user without a group attempts access, they are redirected to the “No Group” page.

We have discussed different ways of making this page more appealing, and hope to implement a calendar style viewing page in later version release cycles.

For use by the client, we have created an example event in the “Lafrowda Kitchen 1” group on Feb 28 2024 at 6pm, with a Paella recipe by user Jamie.

3.19. Create Group Cook

The create group cook page is a simple form allowing a user in a group to register a new group cooking event. The user simply selects a recipe from the dropdown menu of all recipes, and enters a valid datetime on which they intend to cook. The datetime cannot be in the past.

Like the Group Cooks page, if a user without a group attempts to access the Creat Group Cooks page, they are redirected to the No Group Page.

We can foresee that, as the application’s user base and number of recipes grows, picking a recipe from a dropdown menu will become sub-optimal. Furthermore, asking a user to enter an exact, valid datetime value is not the most streamlined UI. Therefore, in future release cycles we aim to significantly overhaul this form to improve ease of use.

3.20. No Group

This page simply displays text informing the user that they must be a member of a group to access a page. It is not intended to be accessed directly, and instead is used in redirection from other pages.

3.21. Admin

The admin page uses the base Django admin template to allow superusers access to select databases, in this case Groups, Users, Meal Events, Ingredients Ratings, Recipes, and User Profiles databases. It is intended that admins would use this page to moderate the app's content and user activity, and add extra ingredients to our sulphates score database if needed.

The admin page requires a superuser login to be accessed. Admins have the ability to make users into superusers. For the use of the client, we have created a test admin account with the following details:

Username: admin

Password: admin

In future, we intend to increase the security and integrity of the admin page by specifically limiting what actions an admin can and cannot perform on databases. For example, and admin is currently able to give groups permissions, which is undesirable as groups are intended for use by non-superusers only.

3.22. Create Group

The create group page is another admin-only page which allows admins to create new groups. The page consists of a list of current groups, as well as a form with a text input for providing new group names. Two groups cannot have the same name.

In theory, and admin is capable of adding groups directly to the database. However, as previously mentioned, we intend to restrict admin access to the Groups database in later version release cycles, so deemed this page necessary to future-proof our app. In subsequent iterations, we also feel it would be useful to add the ability to delete groups to this page.

3.23. Get QR Code

The get QR Code page is the last of the admin-only pages. It consists of a table of groups, along with buttons for generating the QR codes which base level users can scan to join the selected group.