

Plateful: plan, shop, eat, repeat.

GROUP 2-8 PROJECT ANALYSIS

Anette Hardy Sosa & Shulin Xu

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PROJECT DESCRIPTION

Title: Plateful

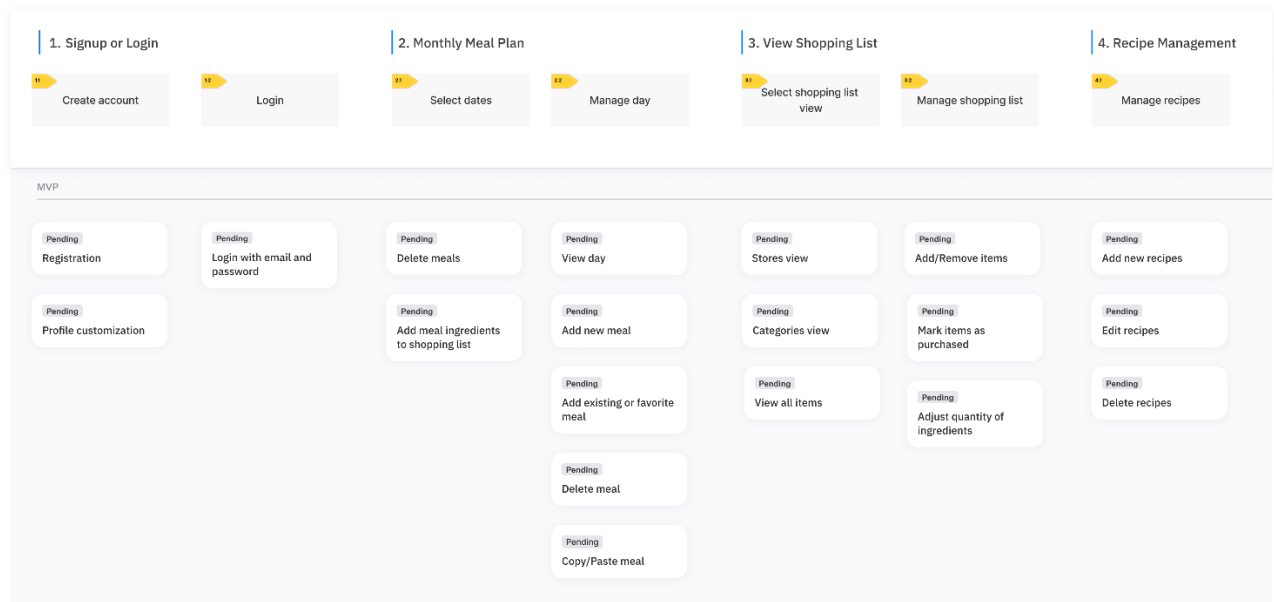
Description: Plateful is a personalized meal planning app that enables users to organize their monthly meals, store their favourite recipes, and manage shopping lists based on their meal plans. The app offers a fully customizable experience, where every recipe and meal plan are unique to each user, ensuring complete control over their meal choices and preferences.

Functional Requirements

Plateful will have the following core functionalities:

- Meal Planning:
 - Users can assign meals to specific days and generate a monthly overview
 - Users can copy or repeat meals across different days
- Recipe Management
 - Users can add, edit, delete, and store their recipes
 - Users can categorize recipes by type (e.g., breakfast, lunch, dinner)
 - Users can favourite recipes for quick access
- Shopping List
 - Users can manually select specific days from their meal plan to generate a shopping list
 - Users can manually add or remove items from the shopping list
 - Users can view the shopping list and toggle between entire list view, category view, or store view
- User Accounts & Personalization
 - Each user will have their own personalized account with unique recipes and meal plans.

STORY MAPPING (USER)



(SELECTED) USER STORIES

Story 1 – Signup

As a new user, I want to register for a Plateful account and customize my profile, so that I can start using the app.

Wireframe

The wireframe shows a web browser window titled "Plateful". Inside the window is a "Create Account" form. The form contains the following elements:

- Two input fields for "First Name" and "Last Name" side-by-side.
- A single input field for "Username".
- A single input field for "Email".
- A single input field for "Password".
- A single input field for "Repeat Password".
- A black button labeled "Sign-up".
- Below the button, the text "Already have an account? Login".

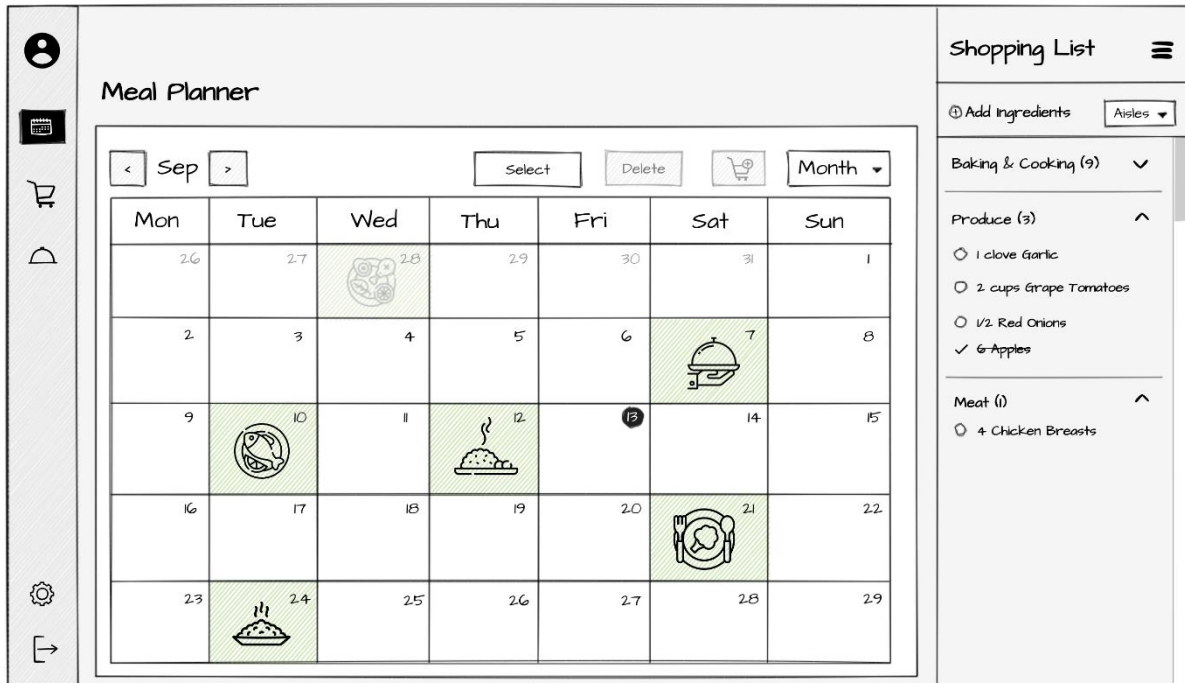
Acceptance Criteria:

- A user can create an account using a unique email address.
- The email must be validated to check if it is unique and properly formatted.
- If the email is already associated with an account, an error message is displayed: "Email already in use."
- The password must be at least 8 characters long, contain one uppercase letter, one number, and one special character.
- The password confirmation field must match the password entered. If the password does not match, an error is shown.
- All fields must be filled out to complete the registration. If any fields are left blank, an error is shown for each invalid field.
- Upon successful registration, the user is logged in and redirected to the home page (calendar).

Story 2 – Managing multiple dates

As a user, I want to select multiple days, **so that I can** add meals to my shopping list or delete multiple meals efficiently.

Wireframe:



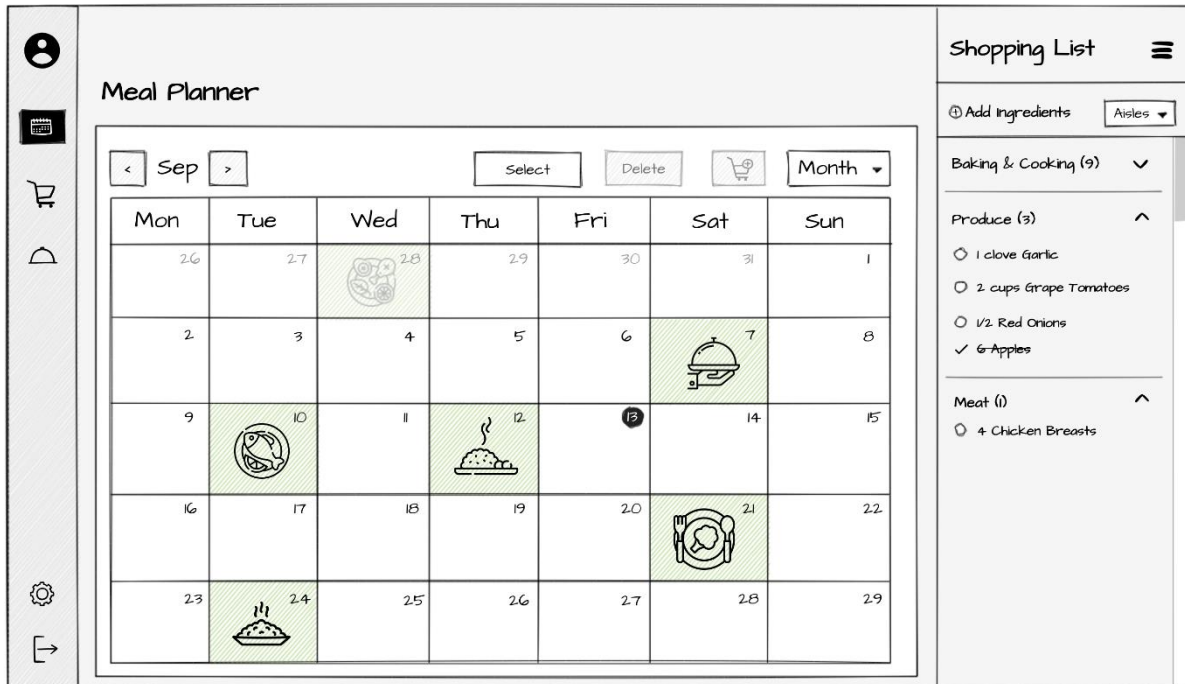
Acceptance Criteria:

- The calendar displays all meals per day in an overview with their names or pictures. Users can toggle between weekly and monthly view.
 - If the calendar fails to load meals, an error message is displayed: *"Unable to load meals. Please try again later."*
- Users can select one or multiple days on the calendar to perform bulk actions (adding to the shopping list or deleting meals).
 - Users will only be able to select days that contain planned meals.
- When selecting multiple days, all meals' ingredients for the selected days are consolidated into a shopping list.
 - Users can review and modify the shopping list.
 - If there is an issue generating the shopping list, display error: *"Unable to generate shopping list. Please try again."*
- Users can delete multiple meals across different dates at once.
 - Deleting meals prompts a confirmation dialog before removal.
 - If deleting the meals fails due to a system issue, display: *"Unable to delete meals. Please try again."*

Story 3 – Managing meals for individual days

As a user, I want to manage meals for a selected date, **so that I can** view, add, edit, delete, or copy meals for a specific day efficiently.

Wireframe:



Acceptance Criteria:

- **Calendar View and Navigation:**
 - Calendar displays current month with days in a grid layout
 - Each day shows the date and meal icons/names if meals are planned (**GET**)
 - Users can navigate between months using arrow buttons
 - Current date is visually highlighted
 - Past dates are visually distinguished
- **Day View Functionality:**
 - Clicking a day opens a popup showing meals for that day (**GET**)
 - Meals are grouped by category (breakfast, lunch, dinner, snack)
 - Each meal displays: Title, Image (if available), Category, Cooking time, Favourite status, and a Delete button.
 - Empty days show "No meals planned for this day"
 - Users can close the popup via close button
- **Meal Management:**
 - Users can favourite/unfavourite meals (**PUT**)
 - Users can delete meals from a day (**DELETE**)
 - Changes are immediately reflected in the popup
- **Recipe Navigation:**
 - Meals in the day view are clickable
 - Clicking a meal navigates to a dedicated recipe page
 - Recipe page shows full details including ingredients and instructions
 - Navigation maintains state and allows returning to calendar view
- **Relationships:**
 - Schedule-Recipe (1-M) relationship ensures proper meal assignment to dates
 - Recipe-Ingredient (M-M) relationship maintains ingredient lists

Story 4 - Shopping List

As a user, I want to see the generated shopping list from my selected days, **so that I can** shop only for the ingredients I need during a selected period.

Wireframe:

The wireframe shows a mobile application interface for a shopping list. On the left is a vertical sidebar with icons for a user profile, calendar, shopping cart, home, settings, and a back arrow. The main content area is titled 'Shopping List' and includes a 'Stores' dropdown menu and a '+ Add Items' button. The list is organized into three columns based on the selected store:

- Albert Heijn (Blue background):**
 - ☐ 1 clove Garlic
 - ☐ 10 Tomatoes
 - ☐ 5 Paprikas
 - ☐ 3 Pizzas
 -
 - ☒ 4 Beef Steaks
 - ☒ Rice
 - ☒ Greek Yogurt
 - ☒ Orange Juice
- Colruyt (Orange background):**
 - ☐ 5 Bread
 - ☐ Salt
 - ☐ Pepper
 - ☐ Bottled Water
 - ☐ Cheese
 - ☐ Butter
 - ☐ Ice cream
 - ☐ Chicken Breasts
 - ☐ Onions
- No Store Selected (White background):**
 - ☐ Soy Sauce
 - ☐ Olive Oil
 - ☐ Strawberries

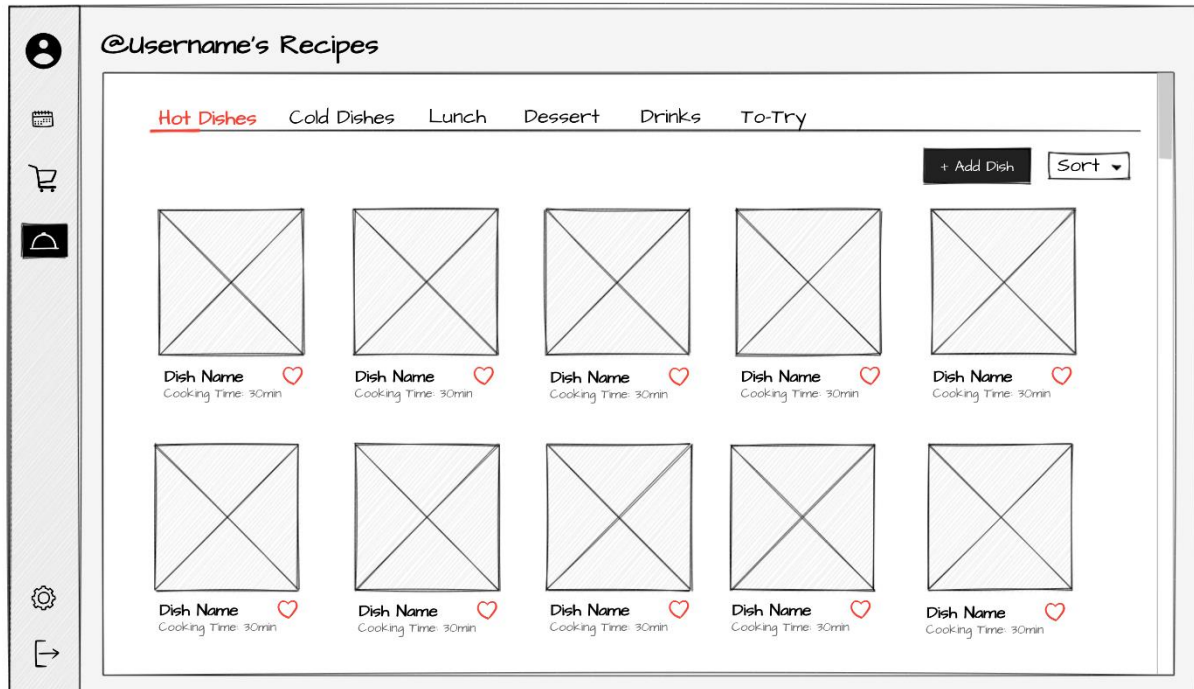
Acceptance Criteria:

- The shopping list includes the ingredients from the recipes assigned to the selected days.
- The user can toggle between different list views: stores, category, view all (ordered alphabetically).
- Users can check off items from the list while shopping. Checked-off items are visually crossed out and greyed out.
- The shopping list is automatically saved to the database after any changes.
- If there's a connection issue or failure to save changes, display: *"Unable to save changes. Please try again."*
- Users can add or remove items manually from the shopping list.
- Users can increase or decrease the quantity of items.
- Deleting an item prompts a confirmation dialog: *"Are you sure you want to remove this item from your shopping list?"*
- If the shopping list is empty, display: *"Your shopping list is empty."*

Story 5 - Recipe Management

- **As a user, I want to** add, edit, delete, and store my recipes, **so that I can** have easy access to the recipes I like to cook frequently.

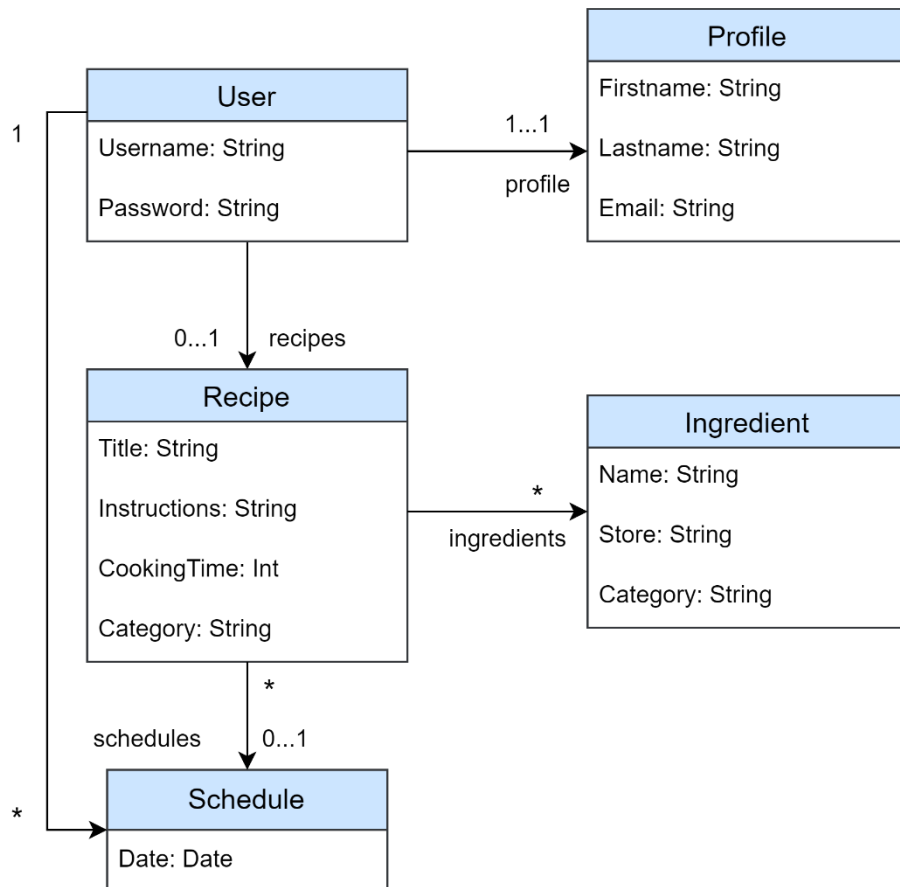
Wireframe:



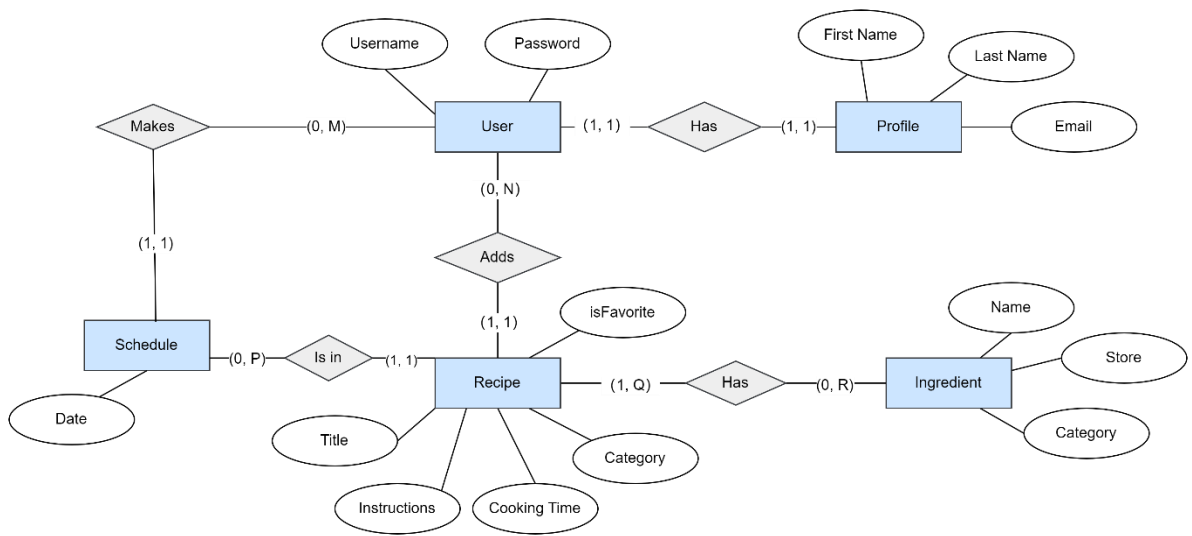
Acceptance Criteria:

- Users can create a recipe with fields for title, ingredients, instructions, cooking time, categories and isFavourite.
 - The form validates that the title, ingredients, and instructions fields are filled in.
 - If any required fields are empty, an error message should display for each invalid field.
- Users can edit and update existing recipes.
 - If the user attempts to leave the editing page without saving changes, display: *"You have unsaved changes. Are you sure you want to leave?"*
- Users can delete recipes, and the recipe is removed from the database.
 - Deleting a recipe prompts a confirmation dialog: *"Are you sure you want to delete this recipe?"*
- Users can mark recipes as favourites.
- If the user tries to save a recipe with duplicate titles, display: *"A recipe with this title already exists"*.

DOMAIN MODEL



CONCEPTUAL MODEL



LOGICAL MODEL

