

Project proposal (revised)

Team number: 33

Team name: TT

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Project Title

Outfit calendar

Summary

A calendar recording users' everyday outfits and recommending styling, helping people save time from deciding what to wear.

Description

Users can add clothing items with attributes (e.g. color, suitable season, type of clothing) to the closet in the app. Users can also add clothing items to their favorites. Users will record outfits on the calendar to create a wearing history. The app can recommend styling ideas based on the weather, occasion, color, and the records in the calendar.

Technically Challenging Features / Creative component

Our team proposes a **smart outfit recommendation** feature that ensures you're always dressed for the occasion. This feature will offer a weather-appropriate, color-matched outfit that balances your favorite pieces without over-wearing them.

To achieve this, we plan to implement a **quantitative scoring system** that ranks outfits based on a combination of weather suitability, frequency of wear, user's favorite clothing items, and aesthetic matching. This scoring system will involve multiple weighted algorithms to calculate the best outfit for the day based on the user's planned activities. We will integrate data from a **weather API** and present these recommendations in an **interactive, user-friendly interface**.

Usefulness

For **usefulness**, Outfit Calendar allows users to organize their closet by uploading images and data of their clothing items and track daily outfits using a calendar. It also recommends outfits based on weather and specific requirements when the user is unsure of what to wear. Unlike similar apps like Stylebook, Outfit Calendar integrates real-time weather and other user preferences for recommendations.

Realness

For **realness**, we are planning to utilize the “Fashion Product Images Dataset” in CSV format as our data source. It contains 44k products with images and multiple labels including category, type, suitable season, color, and usage.

We believe that this one and only data source is enough for our project. In addition to a Users entity, we can generate ClothingItems, WearingHistory, UserFavorites(Favoriteld, UserId, ...), and FavoriteDetails(Favoriteld, ClothId, ...) entities which we believe is a reasonable number of entities for this project.

Functionality

Our application offers three key functionalities: **Closet Management**, **Outfit Calendar**, and **Outfit Recommendation**. The Closet Management feature serves as a virtual closet where users can modify their clothing items. The Outfit Calendar allows users to track their outfit history. Finally, the Outfit Recommendation system suggests the best outfit for each day. These are delivered through four main components:

1. User Authentication:
 - Sign-up: New users can create an account using their email, password, name, and phone number. (insert)
 - Sign-in: Registered users can access their closet and recommendations. (search)
2. Closet Management:
 - Add items: Users can add their clothing items with details such as image, name, category, sub-category, color, suitable season, and usage. (insert)
 - Edit items: Users can edit their added clothing items' attributes (update)
 - Delete items: Users can remove unwanted clothing items from the closet. (delete)
 - Search functionality: Users can search for specific clothing items by name and category. (search)
 - Favorite tags marking: Users can mark items as favorites for quick access. (insert)
3. Outfit Calendar:
 - Add outfits to specific dates: Users can select items from the closet to create and save outfits. (insert)
 - Remove specific outfit on specific dates (delete)
 - Item search: A popup window allows users to search for specific items when creating outfits. (search)

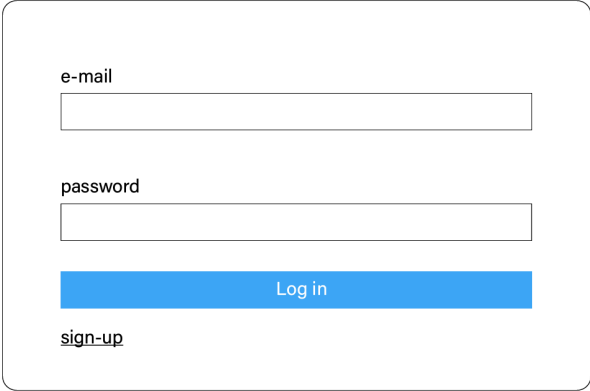
4. Outfit Recommendation:

- Daily suggestions: The system provides outfit recommendations based on the user's closet and wearing history. (display)
- Customizable filters: Users can refine recommendations based on current season and planned activities (e.g., sports, formal events).

UI mockup

1. Sign-in (search)

After the users sign up for an account, they can sign in to the system. If the user hasn't signed up yet, they can click on "sign-up" to register for an account.



e-mail

password

Log in

[sign-up](#)

2. Sign-up: (insert)

Users can create their account using their e-mail, password, name and phone number.

e-mail

password

First Name

Last Name

phone

Sign up

3. Closet

For the closet, Users can input their own clothes. Users can add, delete, and search for clothing items. Users can also filter the clothing items while searching (such as spring/summer, warm/cold, is on favorite lists)

Logo

closet

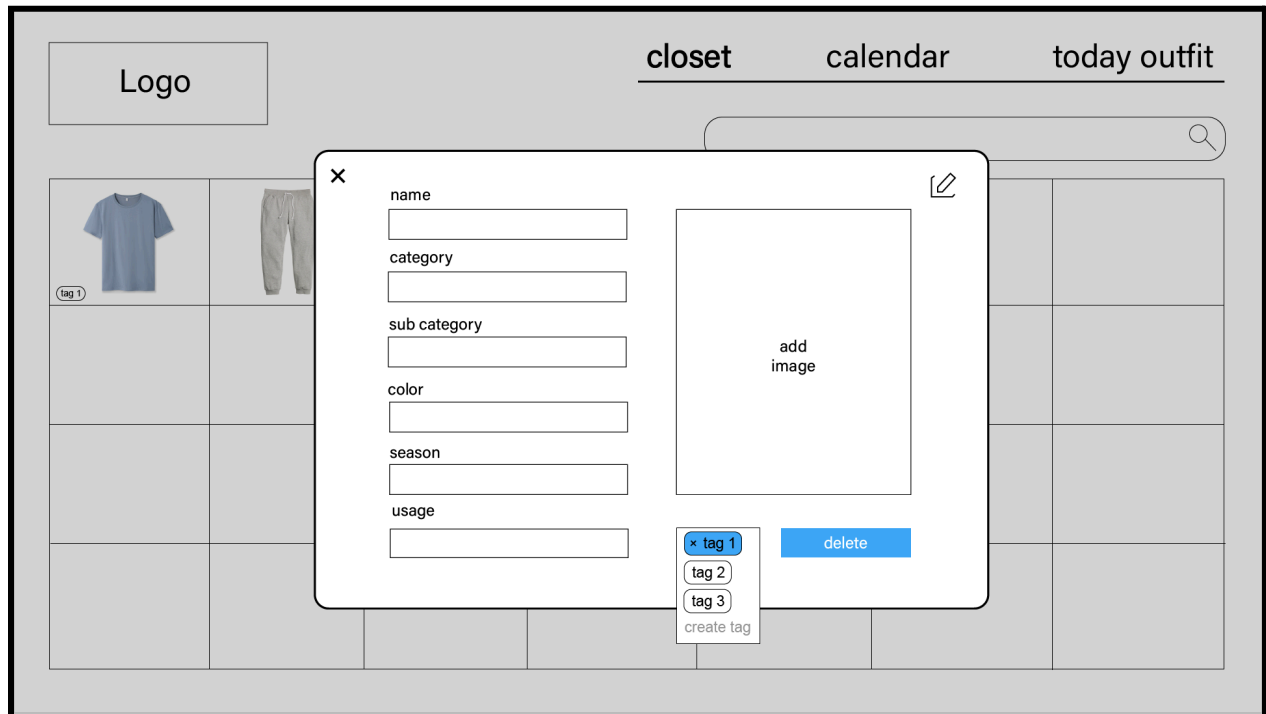
calendar

today outfit

tag 1

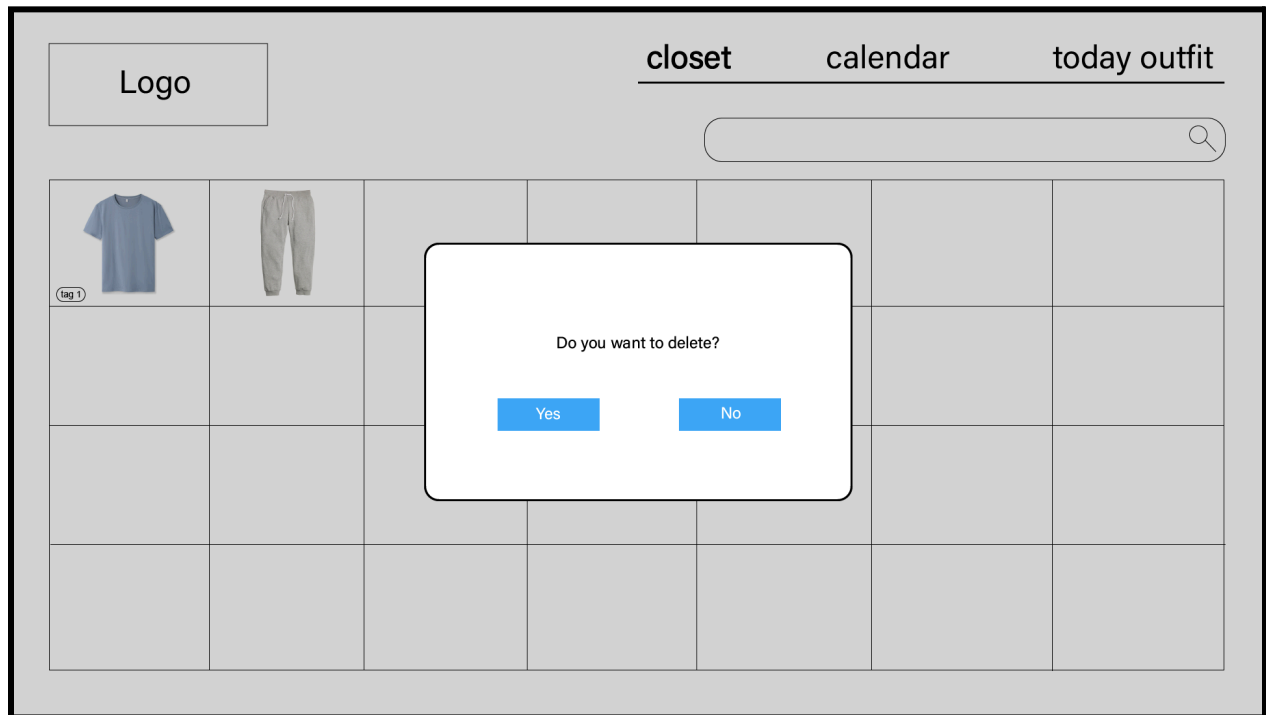
3.1 Add/edit item: (insert, update)

Users can add or edit their clothing items on this page, by adding the image, setting the name, choosing the category (e.g. top), the sub category (e.g. t-shirt), the color, the suitable season to wear, and the usage (e.g. sports) for this item. Users can also add items to their favorite list by clicking the dropdown list below the image. Each user can create more than one favorite tags for their different occasion.



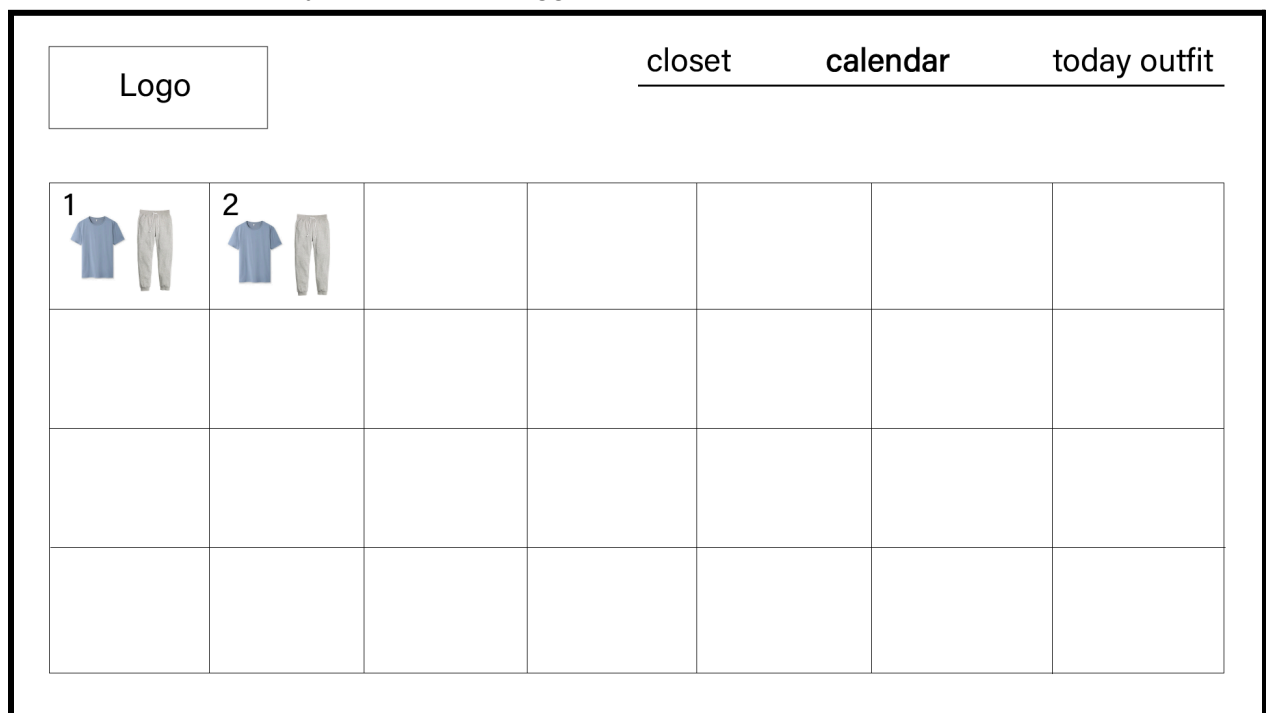
3.2 Delete item: (delete)

On this page, the users can remove the clothing item from their closet.



4. Calendar

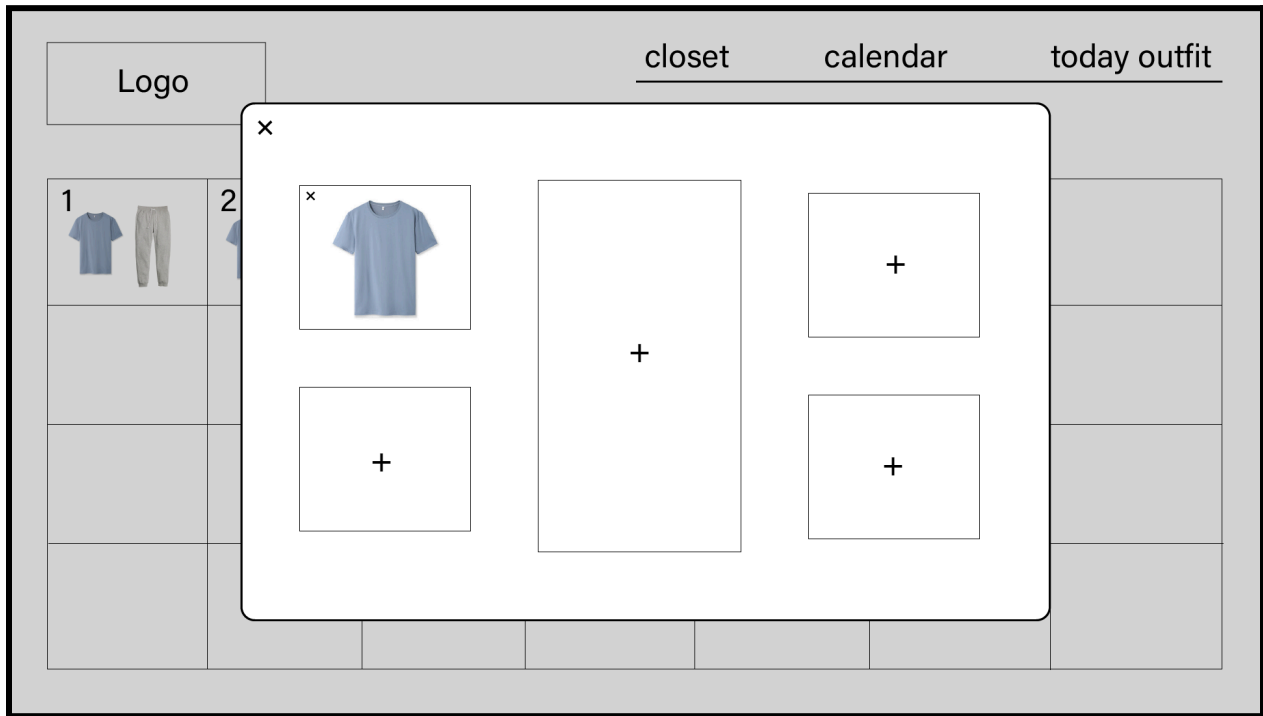
For the calendar, users can record their daily outfits (add/delete outfits). This allows the recommendation system to make suggestions based on the users' past outfits.



4.1 Record outfit (insert, delete)

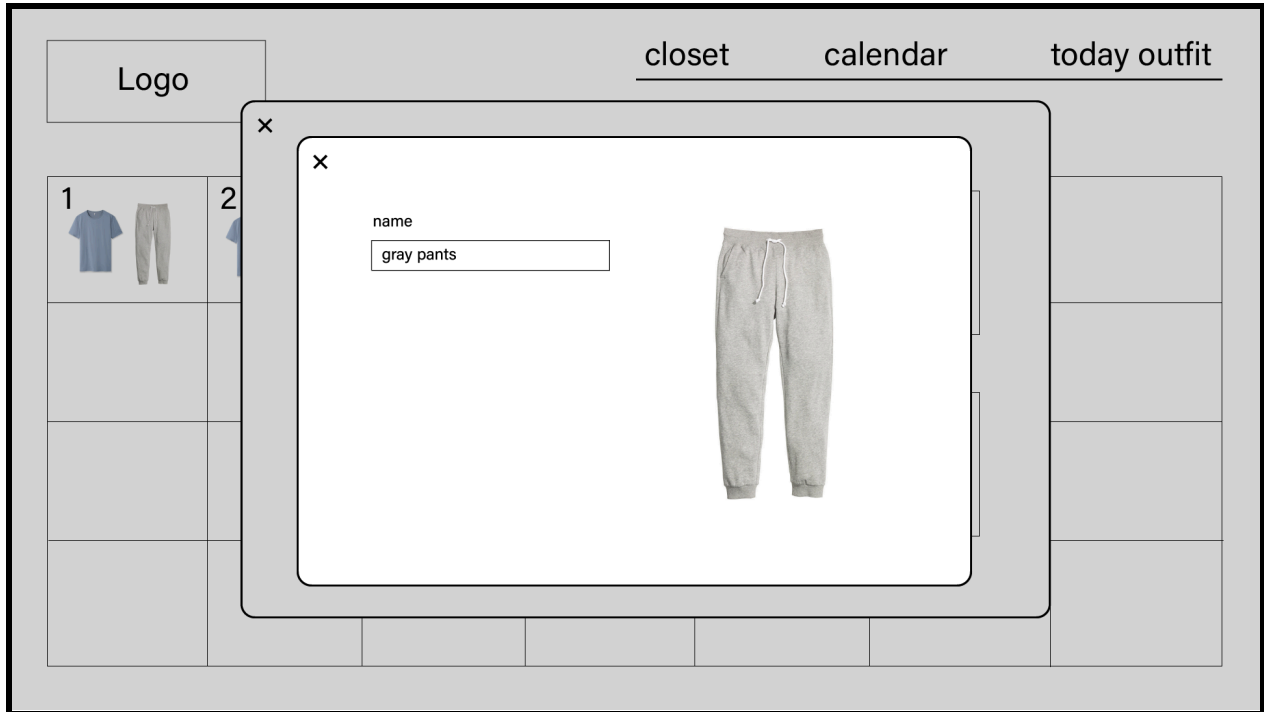
Users can add clothing items in the closet to the outfit of a specific date.

Once an outfit is recorded, users can remove the unwanted items.



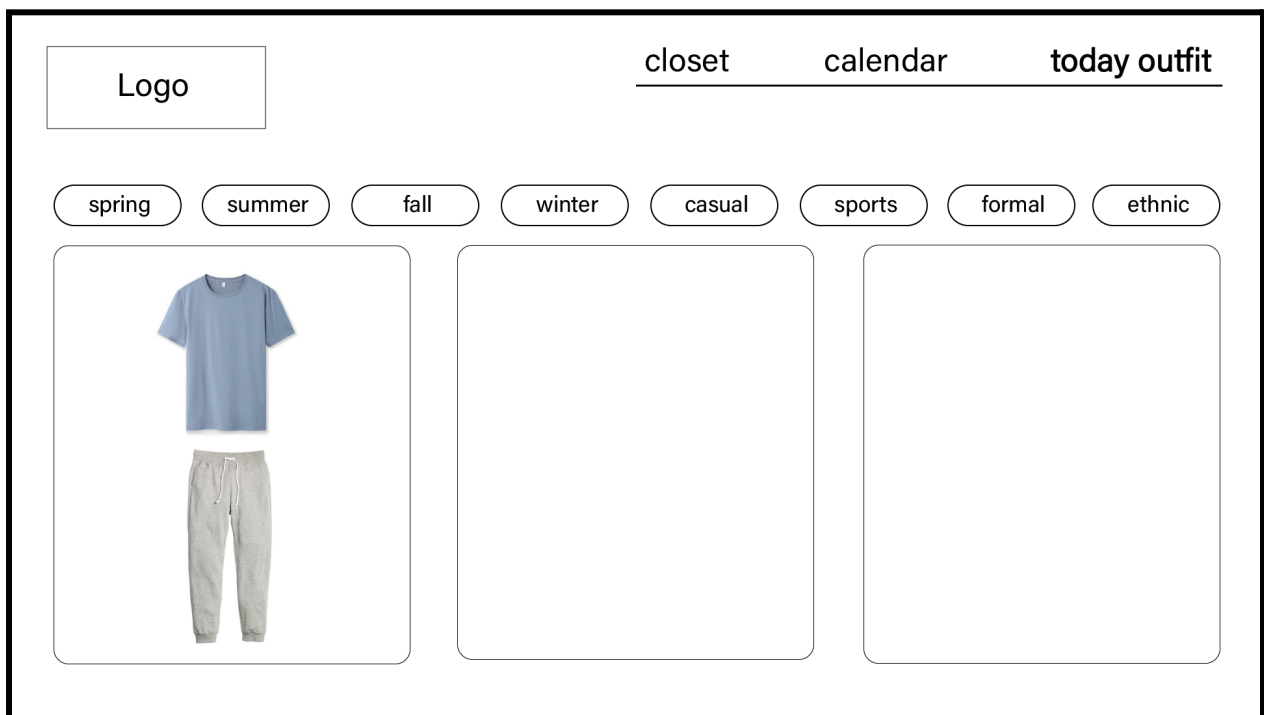
4.1.1 Find item (search)

After clicking the add button in 4.1, Users can search for an clothing item by name through the popup window.



5. Today outfit recommendation (read (display))

For Today's outfit recommendation, the system will suggest what outfit you can wear today. You can filter the recommendations based on the current season (spring, summer, ...) and the type of activity you're attending (sports, formal, ...).



Project Distribution

Operations on Clothing Items (ex. CRUD operation, add-to-your-favorite function)

- Yu-Ting Cheng

Operations on Calendar feature (ex. Add/Remove Clothing items for any specific date)

- Yu-Chien Lin

Operations on Recommendation system (ex. Recommendation function, Fetching weather API)

- Supawit Sutthiboriban

Database design (ex. Schema, Relationship design)

- Han-Chih Chang

Front End

- Everyone contributes on this part