Smart Home Application – Smart Closet
(SS7d-14)

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Project Overview

People living and working in cities with high pressure are forgetful. In this fashion era, most people have got plenty of clothes in their closets. However, 80% of clothes have never been dressed on. Indeed, selecting a suitable outfit always makes people feel frustrated and annoyed.

As people are becoming tech-savvy, they start using applications to manage their daily basis. It inspires us to build an iOS application “Smart Closet”, it acts as virtual copies of real wardrobes in their pockets.

Objectives

Making life easier is our core motivation. With advanced technology, we can make everything around us become smarter. With this application, users can easily manage their fashion collections. Also, it provides real-time weather information and matching recommendations to users’ daily wear. Besides, the application also allows users to share their collections with other users.

System Block Diagram

**Methodology**

- Component to execute our project
  - Swift programming language
  - Xcode: Apple Integrated Development Environment
  - Parse: Cloud Database Service
  - Dark Sky Forecast API

- Graphic user interface design
  - The simplicity and ease of use are our main consideration. The simpler the user interface is, the faster users can get familiar with our app.

- Implementation Stages
  1. Function Implementation:
     - **Sign Up/Log In**: A list of user parameter will be collected and store into cloud database directly. When signing in, username and password check would be carried out.
     - **Clothes Category Panel**: When adding outfits into our digital closet, input data need to be saved into cloud database. The input outfits are classified into relevant types. And, the clothes color will be detected automatically according to our designed algorithm. Also, the clothes detail will be shown in a well-organized way.
     - **Clothes matching Panel**: A comprehensive algorithm is designed for color matching. This results in providing fashionable outfit recommendation.
     - **Weather Panel**: Real-time weather info will be fetched from a third-party website with respect to temperature, rainfall, and humidity.

  2. System Implementation:
     - In order to have systematic information management and data consistency, we intend to provide cloud database service. "User" and "My Closet" are two main classes to store the data comprehensively. One of the attributes of each class is set as the primary key for checking and building relation between different tuples.

- Results

  - **Login Panel**
  - **Main Menu Side Bar**
  - **Clothes Category Table**
  - **Details Input Page**
  - **Parse Cloud Database**