Village Planner

Team 28
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Preface

The VillagePlannerApp is an application to make a visit to the USC Village more efficient by allowing users to check an estimated wait time at any store in the Village, predicting the commute time from the user's current location to that store, and set reminders to ensure the user can arrive at that store at a predetermined time. In doing so, users can plan their trips to such stores to fit their schedules. This application is currently on its first version, version 1.0.0.

Introduction

This document outlines the changes made during the implementation of our project since the design document with regards to the architectural and detailed design, and the requirements.

Architectural Design Change

Components

We changed the display of times to be included in the directory of stores on the Home page, rather than on the map itself. This was to give the Home page a cleaner look, as we needed to include three separate sections, the Map, list of stores, and list of reminders, to align more closely with the requirements.

Architectural Style

No changes were made to the architectural style of our application.

Detailed Design Change

Store.java

We changed our Store class's openTime and closeTime LocalTime variables into integers by splitting each time into hour and minute. This yielded int openHour, int openMinute, int closeHour, and int closeMinute. We made this change in order to make calculations regarding the leaveTime in the Reminders class as well as our UI implementations more simple. We also made some private members public for serialization purposes with Firebase.

User and Authentication

We added a phone number and a field to upload a profile picture to align with the requirements. As an effect of this change, we also needed to adjust the login() and signup() methods to take in a phone number and photo as parameters.

Reminders.java

All of the reminders' private variables were changed to public variables, due to serialization with Firebase. Beforehand, we were not aware that Firebase's serialization worked with public class variables.

We added an additional method in our Reminders class, getTimeAsString(), as a helper function to make the UI implementation simpler. We also changed the leaveTime and arrivalTime from type LocalTime to integers, splitting each time into hour and minute.

Class Diagram

Changes in our class diagram compared to our Project 2.2 documentation is highlighted in red text.

+ id: int + leaveHour: int + leaveMinute: int User + arrivalHour: int + name: String + arrivalMinute: int + email: String + arrivalTime: LocalTime + phoneNumber: String + dest: Store - reminders: List<Reminders> - currentLocation validateReminder(dest: Store, arrivalTime: LocalTime) + createReminder(LocalTime arrivalTime, Store dest): Reminder - notifyUser() - calculateTime() + deleteReminder(int id): void - getTimeAsString() + displayReminders(): void

Reminders

| Authentication | Store |
|---|----------------------------|
| - apiKey: String | + name: String |
| - authDomain: String | + openHour: int |
| - messagingSenderId: String | + openMinute: int |
| - storageBucket: String | + closeHour: int |
| - database: FirebaseDatabase | + closeMinute: int |
| - appld: String | + currentWaitTime: int |
| - projectId: String | + currentNumCustomers: int |
| + login(String email, String password): boolean | + displayStoreDetails() |
| + signup(String name, String email, String password, String phoneNumber): boolean | + displayRoute() |

Requirements Change

No changes were made to the requirements.