

Introduction

Chinese Student Association (CSA) is a cultural organization at the University of California, Santa Cruz. The organization has always had trouble keeping members and interest groups up to date with information and key dates.

The CSA App, **Figure 1**, is an Android Application that will organize information similar to a website by using tab and button navigations.

The CSA App will improve communications between the organization and its members by simplifying ways that users can access information about the organization.

Figure 1. CSA App welcome screen shown on Android Studio Emulator.

Results



After the user is greeted with a welcome screen (**Figure 1**). The user is brought to the home screen with a log-in option on the top right corner that brings the user to a log-in screen asking for username and password. There are four buttons on the home screen to navigate to the following categories: announcements, calendar, houses, and about us.

Figure 4. Home screen shown on Android Studio Emulator.

Materials and Methods

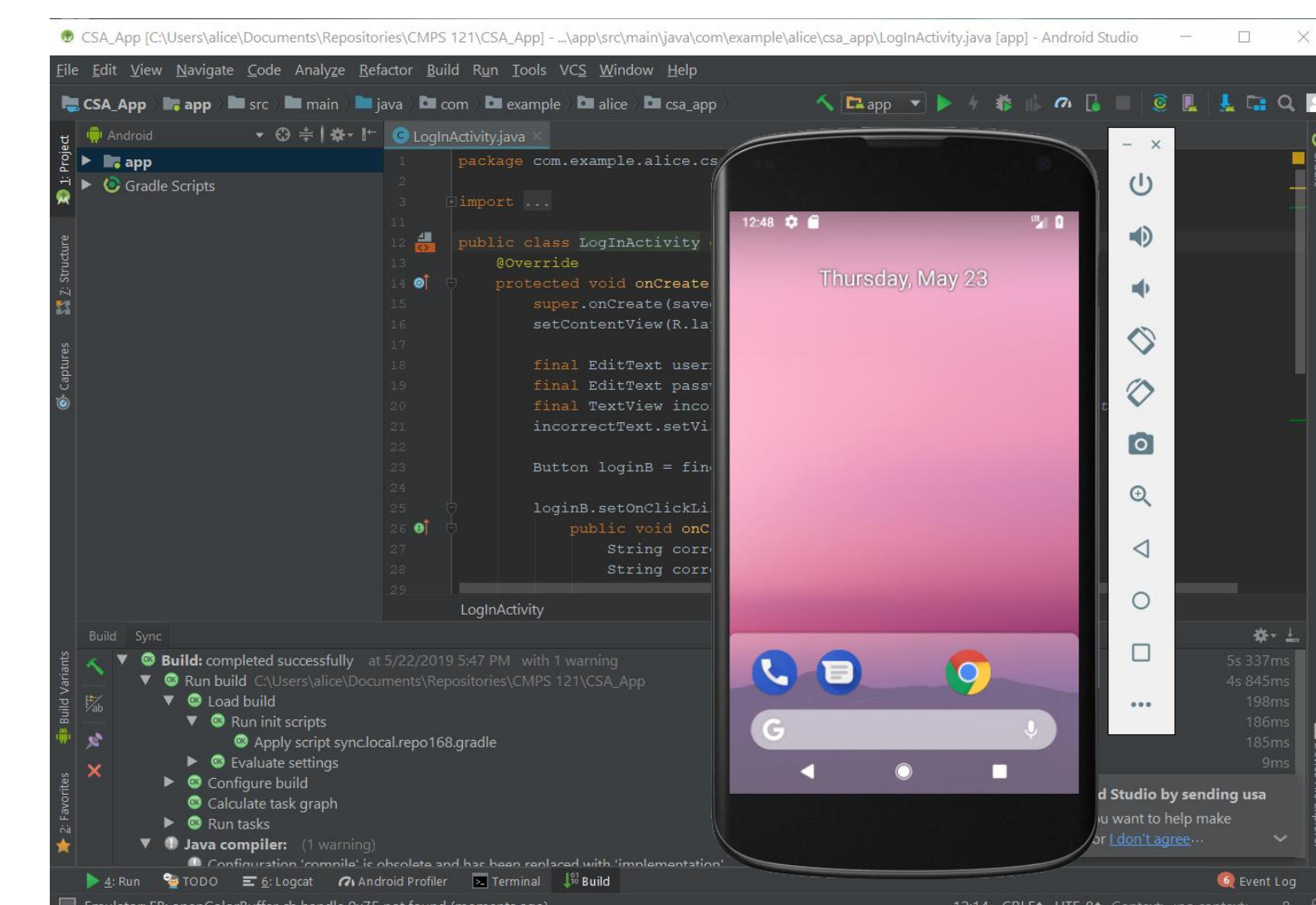


Figure 2. Android Studio IDE



Figure 3. Firebase database

CSA App will be developed using Android Studio (**Figure 2**), a development environment designed for Android mobile devices. The language Java will be used to program how the application works and XML (eXtensible Markup Language) will be used to program how the application look like. Firebase database will be used to support backend services such as authenticating the log-in and real time database for syncing data across all clients in real time. It is needed to ensure that only administrators of the application are enabled to access certain features. Data that needs to be regularly updated can be updated using Firebase and synced to users on devices (**Figure 3**).

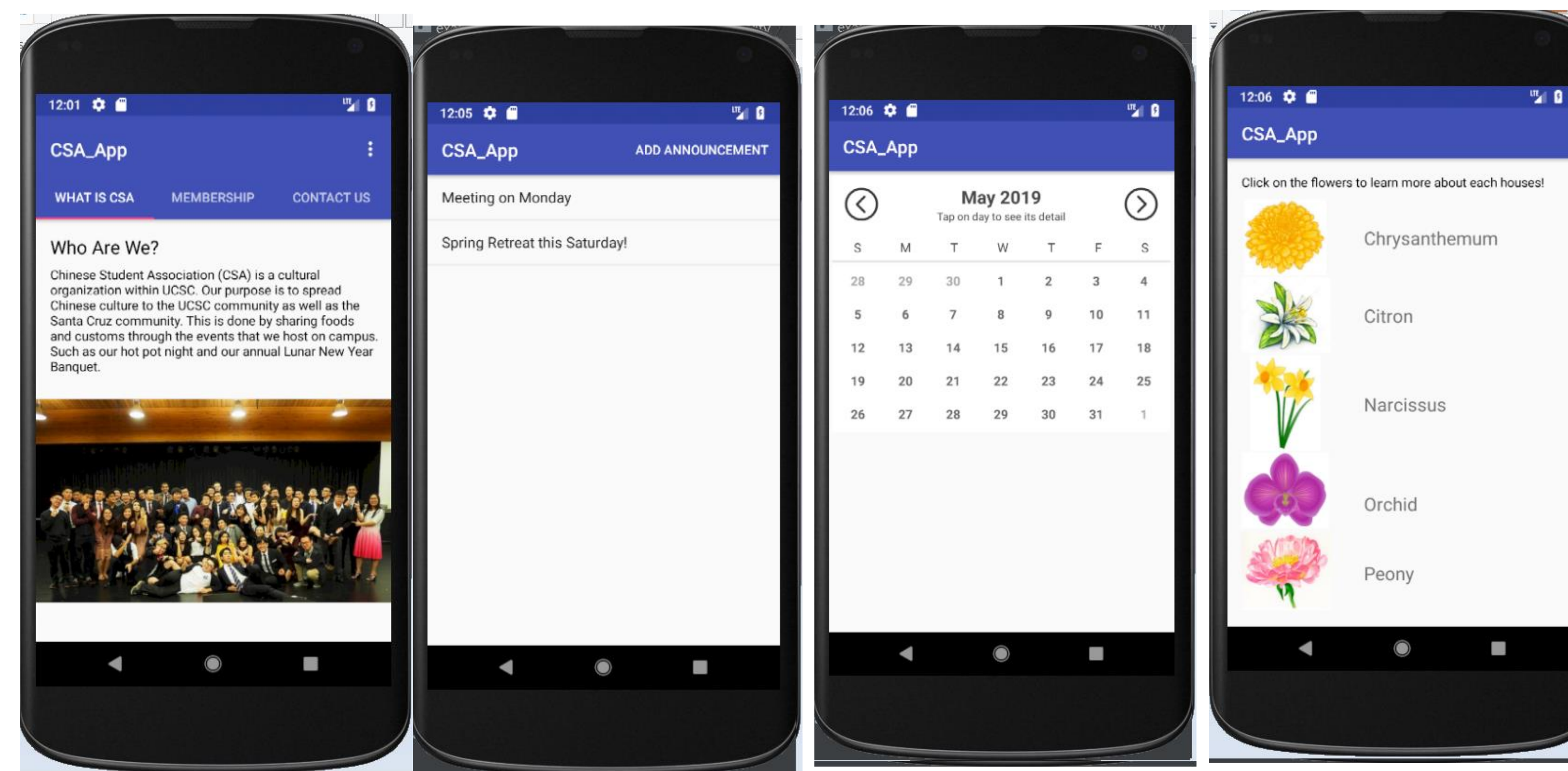


Figure 5. (left to right) About Us, Announcement, Calendar, and Houses.

Upon selection on the home screen, the user is brought to the selected page (**Figure 5**). The About Us screen gives general information about the organization that includes a top navigation. The Announcement screen contains the most up to date news that is updated with real time database provided by Firebase. The calendar screen will feature upcoming events with button clicks that users can navigate to view event details. The Houses screen will feature information about CSA's house system that features button click navigation to view information about each houses.

Conclusion

The development of the CSA App will allow CSA members and interest groups to access information about CSA without the need to directly contact the officers. With programming functions by Java, designs with XML, and support from Firebase, the CSA App will provide users with the most up to date information with simple navigation. Upon completion of the application, I expect good feedbacks and at least the number of club members interacting with the application. Since the application is never perfect, I hope to receive feedbacks in order to improve the application base on the users' needs. When this application shows success, it can easily be altered to adapt information for other organizations. From the CSA App, there can be many adaptations of the application for various uses.

Citations

UCSC Chinese Student Association, . (n.d.). Chinese Student Association - CSA of UC Santa Cruz. Retrieved from <https://www.facebook.com/CSAUCSC/>

Figure 3: <https://www.improvein.com/blog/128-firebase-database-and-android-sync>

<https://developer.android.com/studio>

<https://firebase.google.com/docs/>

Acknowledgements

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