



Cycle One Presentation

By:
Trevor Aupperle
Benjamin Fisk
Camden Davis
Mohab Yousef



Cycle One Overview - Ben

For this cycle, our team focused a lot on bringing the pre-existing features of the application into a working state, as many of the features required work to become functional. We also spent time developing visual mockups to implement in future cycles, and exploring and experimenting with packages to implement for the features in our user stories.



Technical Challenges - Ben

- The IOS operating system is presenting some challenges in acquiring permissions to use certain services, such as location and camera
- Some of our team have had issues connecting the firebase database with their application
- The android package manager has posed some challenges during updates
- The flutter stripe payment package has required significant updates to configuration files



System Metaphor - Mohab

Similar to a digital golf caddy guiding players through the course, this app acts as a digital gameday caddy. On football game days, it serves as a personal navigator through the campus. Allows users to easily request rides from nearby golf carts, ensuring easy travel to desired locations.

- Utilizes a friendly and intuitive interface.
- Establishes a quick, efficient, and hassle-free environment for fans on game days.



Cycle Intent - Camden

All team members gained a thorough understanding of the code base, and established working development environments to facilitate productivity throughout the semester.

We explored the possibility of having some developers target the Android operating system to verify whether or not the application is able to be run on the OS.

We also began to create prototypes for a new, modern user interface that would bring simplicity and intuitive user interaction to the application.

Additionally, our team brought updates to the codebase, to ensure that the application can safely interface with current software versions.



User Story - Flutter Migration - Trevor

Summary: As a user, I need to be able to use the app to work as intended with no security flaws.

Description: The current Flutter version used in the application from previous teams is Flutter 1.22.5. This is a major concern since Flutter has since released 2 major version updates which include null-safety checking, sunseting of old iOS versions (iOS 9 and iOS 10), and performance/security improvements. All of these are necessary to ensure the application works as intended and improves the security vulnerability risks.

Status: **COMPLETE**



User Story - OS-Check - Trevor

Summary: As a user, I need to be able to use the app on the most recent versions of iOS and Android operating systems.

Description: After migrating to Flutter 3.0, we need to ensure we can run the app on simulators for different operating systems.

Status: **IN PROGRESS**



User Story - Login via Facebook - Trevor

Summary: As a user, I need to be able to login to the app using my Facebook profile.

Description: The Flutter package, `flutter_facebook_login`, is no longer compatible with Flutter 3.0 and has not been updated in over 4 years. We need to find a new package that is capable of handling facebook sign-ins (we should probably use `firebase_ui_oauth_facebook` since it is specifically used in conjunction with Firebase and is built by Google).

Status: **Not Started**



User Story - Geolocation Features - Trevor

Summary: As a user, I need specific geolocation features to work so that I can decide where to go and figure out where I am being picked up.

Description: The current geoflutterfire package is incompatible with newer versions of Firebase packages. We need to migrate to the more updated geoflutterfire2 package to handle the dependency issues. To do this, we will need to remove the package flutter_google_places and will need to find a replacement or build our own solution.

Status: **IN PROGRESS**



User Story - Alternative To Unicorndial Package - Trevor

Summary: As a user, I need an intuitive and friendly user interface to interact with.

Description:

There is a Flutter package, unicorndial, that is currently being used as a user interface component. However, it has not been updated in 5 years and no longer works with the new Flutter version. We need to find an alternative or build our own component.

Status: **Not Started**



User Story - Stripe Update - Trevor

Summary: As a user, I need a reliable purchasing system to make purchases on the app for the rides I request.

Description: Currently, the app uses the package `stripe_payment` to handle payments with the payment provider Stripe. Stripe has migrated to a newly updated package `flutter_stripe`. Changes need to be made in the app to handle the new package.

Status: **IN PROGRESS**



User Story - Location Package Update - Trevor

Summary: As a user, I need the app to request to use my location.

Description: Currently, the app uses the package Geolocator to handle getting the user's location. The old package is poorly implemented and out of date. Either the current package needs to be updated, or changes need to be made in the app to accommodate a new package.

Status: **IN PROGRESS**



User Story - Figma Mockups - Trevor

Summary: As a user, I need an intuitive and friendly interface to interact with.

Description: Currently, the user interface for the app is simply bad. We need to draw up high-fidelity prototypes in Figma to create a better UI/UX system for users.

Status: **IN PROGRESS**



User Story - Implement UI Changes - Trevor

Summary: As a user, I need an intuitive and friendly interface to interact with.

Description: After mocking up prototypes in Figma and getting them approved by the sponsor, we need to implement the features in the code.

Status: **IN PROGRESS**



User Story - Driver Directions Research - Trevor

Summary: As a user (driver), I need to be able to see the best route to take customers to their desired destination.

Description: We need to limit driver routes to streets that can accommodate golf carts legally (35 MPH or less) and also be able to show routes that will likely be “blocked” on game days for vehicles. We will have credentials to get through “blocked” roads. Need to take into account cost algorithms when researching. Complete research of how we can accomplish this.

Status: **IN PROGRESS**



User Story - Driver Directions Research Impl. - Trevor

Summary: As a user (driver), I need to be able to see the best route to take customers to their desired destination.

Description: We need to limit driver routes to streets that can accommodate golf carts legally (35 MPH or less) and also be able to show routes that will likely be “blocked” on game days for vehicles. We will have credentials to get through “blocked” roads. Need to take into account cost algorithms when researching. Implementation of research conclusions from parent user story.

Status: **Not Started**



User Story - Rider 'On the Way' Notification - Trevor

Summary: As a user, I would like a notification about when my driver is going to arrive.

Description: Add a notification for the rider when the driver is on the way to pick them up with an estimated arrival time. Riders should see where the driver is while they are en route.

Status: **Not Started**



User Story - Rider Status - Trevor

Summary: As a user (rider), I would like to be able to see where I am at in my ride on a map as the drive is occurring.

Description: Once a ride has begun, the rider should see the golf cart location on a map as it moves along the drive.

Status: **Not Started**



User Story - Rider Recap Screen - Trevor

Summary: As a user (rider), I would like to see a recap of the ride I just took.

Description: Once a ride is over, a screen should be shown to the rider that summarizes their trip and costs. It should also prompt the user for a rating.

Status: **Not Started**



User Story - Drivers Near Me - Trevor

Summary: As a user (rider), I would like to see where the nearest drivers are around my current location.

Description: Riders should be able to see current locations of carts around them on a map.

Status: **Not Started**



User Story - Feedback/Rating System - Trevor

Summary: As a user, I need to be able to give feedback and rate both driver and riders after interactions with them.

Description: Implement a 5-Star rating system.

Status: **IN PROGRESS**



User Story - Enhance Feedback and Tip Screen - Trevor

Summary: As a user, I need a streamlined and engaging interface for feedback and tips.

Description: The current design doesn't have a feedback screen, which we've found to be less effective. The goal is to design, add a feedback screen and merge it with the tips screen so the rider can be able to rate and tip at the same time.

Status: **IN PROGRESS**



User Story - Display Past Trips - Trevor

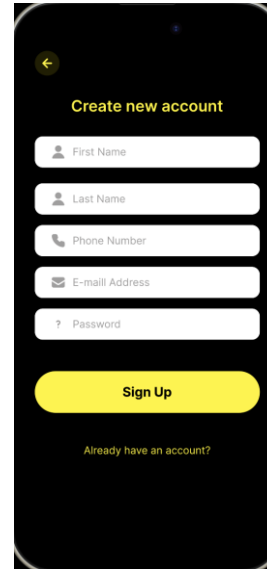
Summary: As a user, I would like to be able to see all of my previous trips as both a rider and a driver.

Description: Create a drivers past trips log and a riders past trips log.

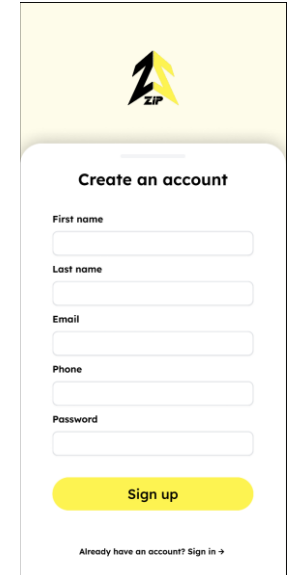
Status: **Not Started**

Design Documentation - Trevor

- As it stands, the design looks very outdated, and needs remodeling to fit current app store standards



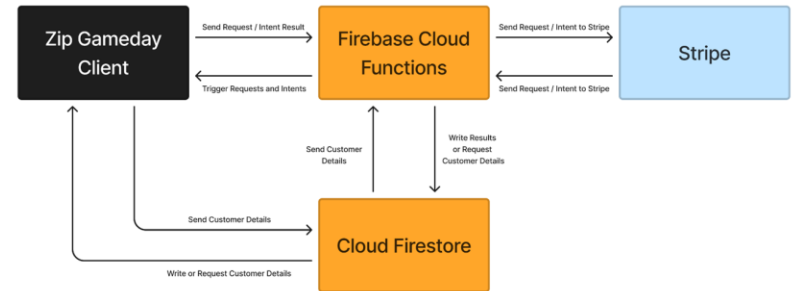
The current design is a dark-themed mobile app screen titled "Create new account". It features a back arrow in the top left corner. Below the title, there are five input fields with icons: "First Name" (person icon), "Last Name" (person icon), "Phone Number" (phone icon), "E-mail Address" (envelope icon), and "Password" (question mark icon). A large yellow "Sign Up" button is positioned below the fields. At the bottom, there is a link that says "Already have an account?".



The proposed design is a light-themed mobile app screen titled "Create an account". It features a logo at the top center. Below the title, there are five input fields: "First name", "Last name", "Email", "Phone", and "Password". A large yellow "Sign up" button is positioned below the fields. At the bottom, there is a link that says "Already have an account? Sign in →".

Design Documentation - Trevor

- We are using Flutter as the main framework, Google Firebase and Cloud Firestore for the database, authentication and cloud services, and Stripe for payment transactions





Process - Camden

- We will be using Jira as a project board to keep the project and tasks organized
- We will be updating the app progress with our sponsor frequently
- We will stay in contact with the blue team providing regular updates on our progress to avoid task overlap and ensure seamless integration between our teams



Test Results - Ben

- Ensured the application runs smoothly on the latest versions of Android and iOS
- The application's geo-location feature is functioning as expected on Android devices
- Migrating the payment system to the most up-to-date package required significant updates to the package management system and overall project



Management Plan - Mohab

In the coming cycle, we plan to:

- Finalize user stories related to geo location features
- Verify that payment processes are functional
- Complete all visual design mockups
- Begin translating these mockups into implementations
- Implement user rating system for drivers



Demo - Trevor

- The signup and login screens are working, as well as the main screen for users.
- Users can search for and place markers on the screen.



Risk Mitigation - Mohab

- Maintaining high levels of communication within our own team and between the orange and blue teams is crucial to ensure that tasks are not duplicated and that all elements of the application align seamlessly
- Regularly update and secure all project technologies.
- Prioritize user login information, profile data, and payment authentication.
- Implement strong security protocols to safeguard user trust.



Lessons Learned - Mohab

- Effective communication is important
- Updated infrastructure before adding development
- Make better documentation as we develop



Future Plans - Camden

- Our long term plan for the coming few cycles is as follows:
 - Enable precise navigation for golf cart drivers through Google Maps.
 - Ensure optimal route planning for efficient transportation.
 - Provide users with real-time notifications and updates within the in-app map.
 - Enhance the user experience by keeping them informed throughout the ride.
 - Introduce a robust feedback and rating system within the app.
 - Implement a comprehensive record system for both drivers and riders.
 - Maintain a detailed history of past trips, enhancing user engagement and satisfaction.