

Engineering Design Day Senior Design Team 305

MOUTHPIECE

Social Media Application- Athletic/Sport



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Team Introduction



MOUTHPIECE



Ian Tyrell
Computer Engineer (B.S)



Christian Robinson
Computer Engineer (B.S)



Julien Denis
Computer Engineer (B.S)



Peyton Smith
Computer Engineer (B.S)

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Front-End Engineer

Front-End Engineer

Back-End Engineer

Back-End Engineer



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Sponsor and Advisor



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Advisor

- Petru Andrei
 - Electrical and Computer
 - Professor
 - Monthly meetings



Chris



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Project Introduction



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- Mouthpiece is a social media app whose motivation is seamlessly sharing posts, pictures, and videos for a community of those interested in sports.
- This app will connect athletes, sports fans, team members, etc.



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Motivation



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- The main motivation is to solve the problem of sports recruiting by providing a platform for athletes to showcase their talents and connect with teams and coaches.
- Mouthpiece aims to create a community where athletes and sports fans of all levels of experience can come together to share their passion for sports and support each other.



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Project Scope



- Mouthpiece's Core Services include
 - Tiers, official and unofficial stats
 - Athlete tiers from S to D
 - Tier Panels
 - Rankings based on winning/followers/likes
 - Social sharing
 - Post sharing with pictures videos, and strings, commenting, messaging.
 - Reactions
 - Teammate Interaction
 - Geolocation
 - Court/field locator
 - Tournaments/games locator
 - Custom map markers, athlete tiers from S to D



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Narrowing the Scope

- Athletes - Exposure, and finding competition
- Coaches/Recruiters - Scouting
- Casual Viewers - Entertainment
- Trainers - Players Development
- Tournament Organizers - Teams Locator
- Teams - Competition

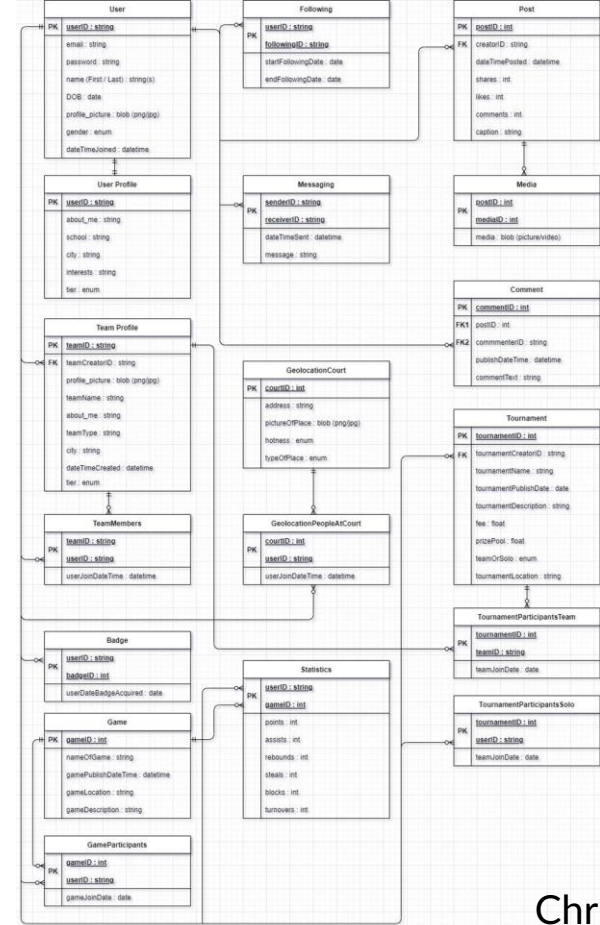
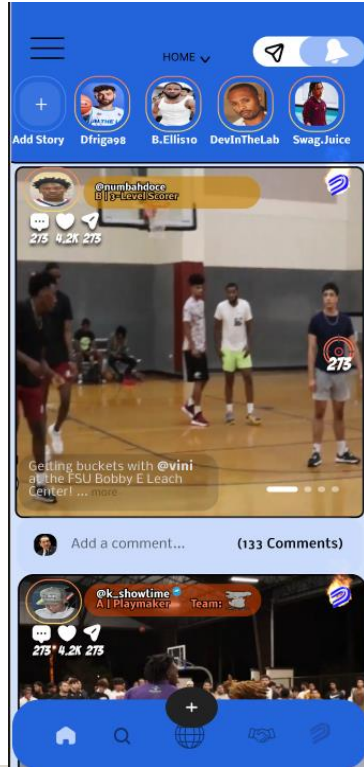


Julien



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Design Concept



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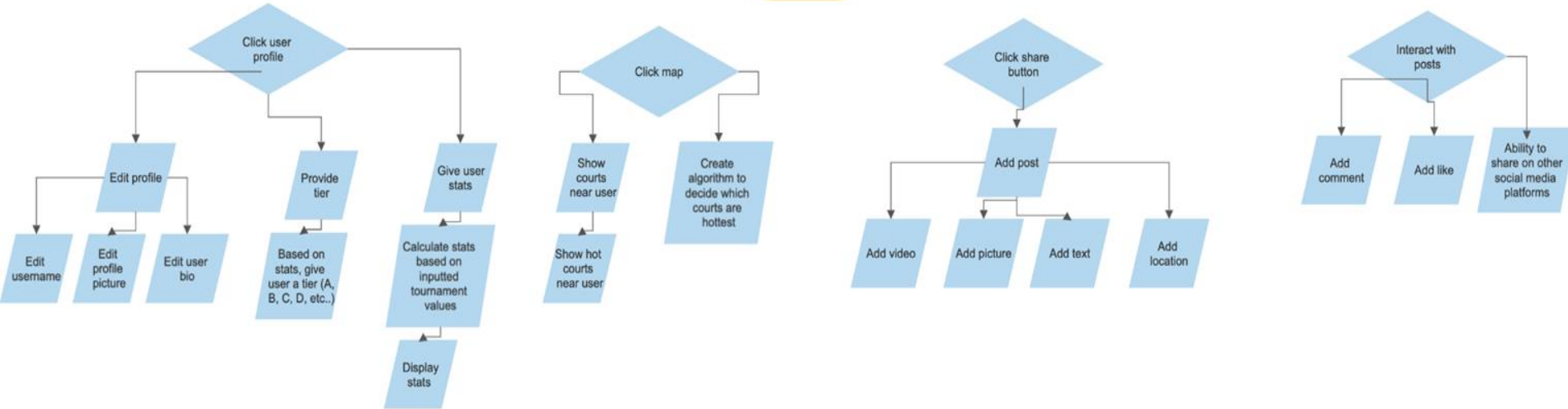
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Block Diagram



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Mouthpiece



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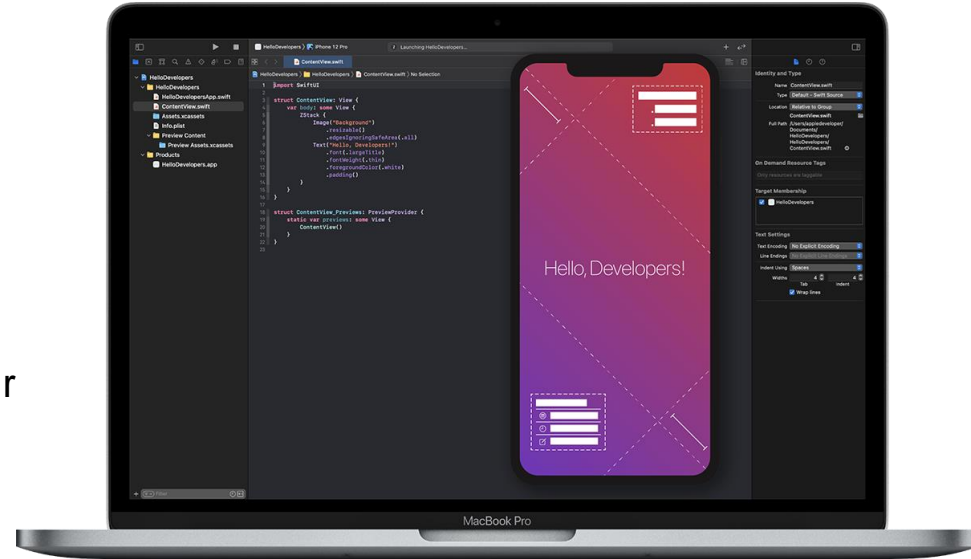
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Technologies



1. Xcode & Swift

- Apple's IDE and programming language
- Write, compile, test/debug code using their dev tools
- Used to develop software on their platforms
 - iOS, macOS, watchOS, tvOS



Peyton



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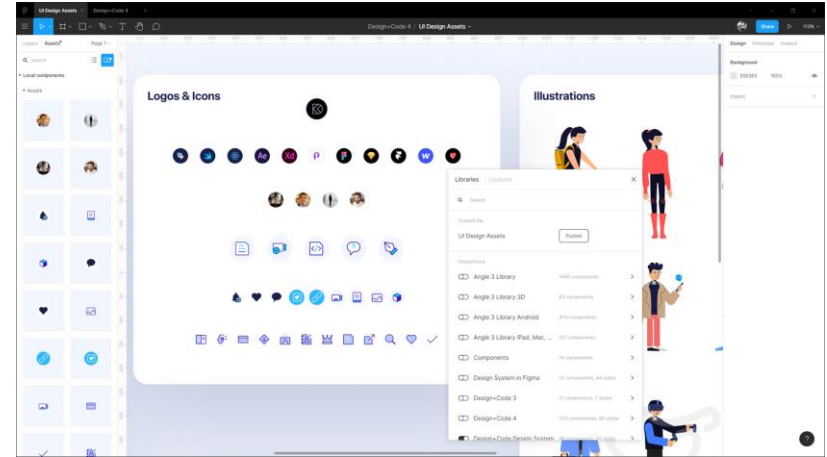
Technologies



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2. Figma

- External front-end web technology
- Used to design our app's front-end
- Build wireframing for user experience
- Design user interface to make it visually appealing



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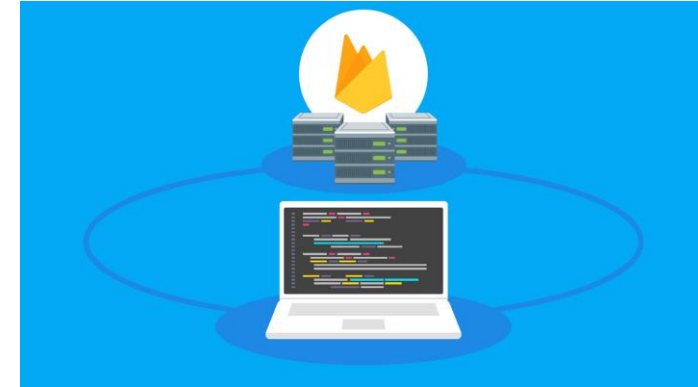
Technologies



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3. *Firebase*

- Google's development platform
- Offers variety of dev tools and backend services
 - Used to store app data & important info
 - Security & encryption features for user info
 - Real-time synchronization across multiple clients



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Technologies



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4. *Google Maps API*

- Google's programming interface
- Map & Places data
- Used to integrate Geolocation functionality in our app
- Why?
 - Years of work ahead of Apple's API
 - Easy to configure and integrate in app
 - Couples with Firebase server

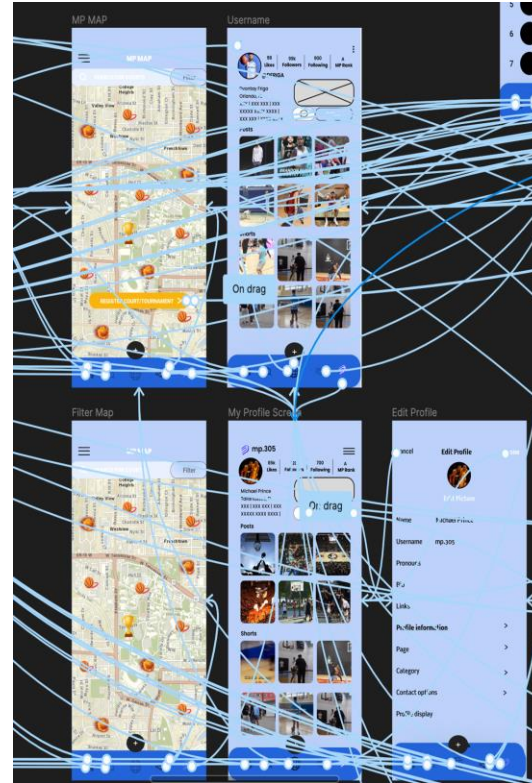


Peyton



Implementation

- Figma - Mobile Application Prototyping
 - Allows for real-time collaboration with teammates to design application prior to development for planning and execution.
 - Built-in Prototyping allows design to interact with the mockups and user flows to visualize the user experience of the social media app.



Julien

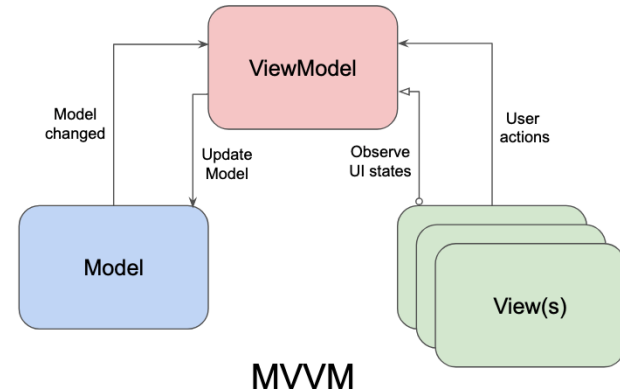


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Implementation



- XCode - Project Layout
 - We organized the codebase using an MVVM design pattern, to better organize the functionality.
 - Models - Lowest Level
 - Stores basic app info to connect to our database
 - View Models - Connector
 - Business logic functionality
 - View - Highest Level
 - UI - What the user sees



- Managers - Methods used to read/write to Firebase

Implementation



- Google Firebase - Backend
 - Where we developed our data communication, query-based collection datasets, and authentication metadata
 - For testing basis we only were able to add basic data fields and collections.
 - Player, Non-player?
 - Stats?
 - Teammate?

The image displays two screenshots of the Google Cloud console. The top screenshot shows the 'Cloud Firestore' interface, specifically the 'users' collection. It lists documents like 'test' and 'testacc', and shows the 'Add document' button. The bottom screenshot shows the 'Authentication' interface, displaying a table of users with columns for Identifier, Providers, Created, Signed in, and User UID. The table lists several test users.

Identifier	Providers	Created	Signed in	User UID
test@test.com	Google	Mar 25, 2023	Mar 30, 2023	rZegTf48PK36Mhc5t5v8GD0amf2
testuser123@gmail.com	Google	Mar 22, 2023	Mar 29, 2023	PgBAH1VnZVYKUsYEqxubJN83...
testing@gmail.com	Google	Mar 17, 2023	Mar 17, 2023	QGhGMin7oHMc5lsw8Dipudsq2
testacc@test.com	Google	Mar 13, 2023	Mar 13, 2023	w8BB8T8et8ubJauyrthDWEacuseu1
test@testmail.test	Google	Mar 11, 2023	Mar 11, 2023	j88zQmIsu09MIdqNaEzHzWLcn...
troofa@gmail.com	Google	Mar 11, 2023	Mar 11, 2023	gJvGKH0cvhfdlec2QETPz8403
petru.andre@fsu.edu	Google	Feb 10, 2023	Feb 10, 2023	OgvKX0NqVgk5uEcYUzKinc841
testusername@gmail.com	Google	Feb 6, 2023	Feb 16, 2023	8eDjwouadeEHbrVGmshZF7Tfse2
19peytonsmith@gmail.com	Google	Feb 6, 2023	Feb 6, 2023	P262M484rVU0cqn3XN...

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Issues & Problems Encountered



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- ✓ Google Maps Integration w/ Firebase
- ✓ Notifications
- Tournament Functionality
- Difficulty with Figma integration w/ Xcode



Progress & Demonstration



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Questions?

