

Developer Group: **Mr. 2D and the Boys**

Benjamin Sykes, Liam Stickney, Malik Sheharyar Talhat

Paul Bonenfant

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About the App

Have you wanted to be the owner of a bunch of real-estate properties!? Become the real-estate manager you always wanted to be in Sheridan GO. In this game you purchase and hold properties that exist in the REAL WORLD with in-game currency. You earn revenue over time depending on the percentage/number of properties you own. Use this income to reinvest and build your empire! The game will utilize GPS technology in modern Android phones to locate the current player location to find properties and in-game events. We will be using the Google Places API for Point of Interest information as it seems they can handle up to 1,000 API calls per day for free which seems reasonable for now. Other Sheridan GO players can also purchase interest in buildings making for some great competition!

App Specifications

Technical Specifications

- App will require us to be using Android API level 20 (lollipop) or higher to comply with online API specifications. (Note: Not 100% sure about this still)
- Will be using the Google Places API for Android to get Point of Interest data for “Properties” in our app.
- Permissions required for App: **ACCESS_FINE_LOCATION** and **INTERNET**
- Will be using an **SQL** Database for player information and “Property Holdings”
 - As well as property values, revenue, user data, etc.
 - Note: May try to use some local data storage solution for Individual player data so as to not use too much space or network time querying remote SQLite databases.
- Networking features will be implemented to connect to APIs and get map data to place on a Google Map control.
- Time feature will be handled by a server clock, instead of the Android clock as to avoid cheating such as unauthentic time variations with the intent to gain extra “free” in-game cash.
- All properties will be intractable in the same dimension for each player in the game, however, there will be no direct interaction among players such as trading/gifting/social features. These elements may be added in the future if time permits us, but for now we will stay with what is already a substantial amount of work for the base-app.
- EXTA: May use android pay to implement premium currency in-game.

Game Specifications

- User will first be presented with a View to pick his/her Display name. Which is simply the name that will appear on their account in game. Note: There are no account logins in this game, there is only a display name that you can choose the first time you open the app. After that, it will be stored in SharedPreferences. You will then bypass the login screen and go directly to the app as your selected user.
- Once in the app, users are started off with a nice \$5000 which will help them get started with investing in properties.
 - On the dashboard you can do the following:
 - View available properties for purchase/investing
 - View your current properties
 - Buy some more cash using Android Pay if you run out.
 - See the amount of money you have gained since you started the game.
 - See a map of your current location as well as nearby properties that you may purchase.
 - See a summary of the current cash you have in your account.
 - The dashboard is the main hub of the game.
- If you would like to purchase property, you may do so through the “Available Properties” View.
 - In the properties view you will see all nearby properties within 100meters.
 - Once you select a property, you will be brought to the “Individual Investing View” where you can decide how much you would like to invest into a selected property and how much return you will get per hour of that investment.
- If you would like to manage your properties, you can select the “My Properties” button
 - In the properties management view, you will see a list of all of your properties that you own. You can select one to be taken to individual management of a selected property.
 - Once you have selected a property you will see the a view of your selected property and 2 options...One option allows you to invest more money into the property for a greater return, or you may sell shares of your property back to the bank. Keep in mind, the amount that you get when you sell your property will be less than what you bought it for. Only do this if you are 100% sure.
- The **end goal** of this game is to become a rich, successful real estate agent owning as much property as you can afford or reach physically!

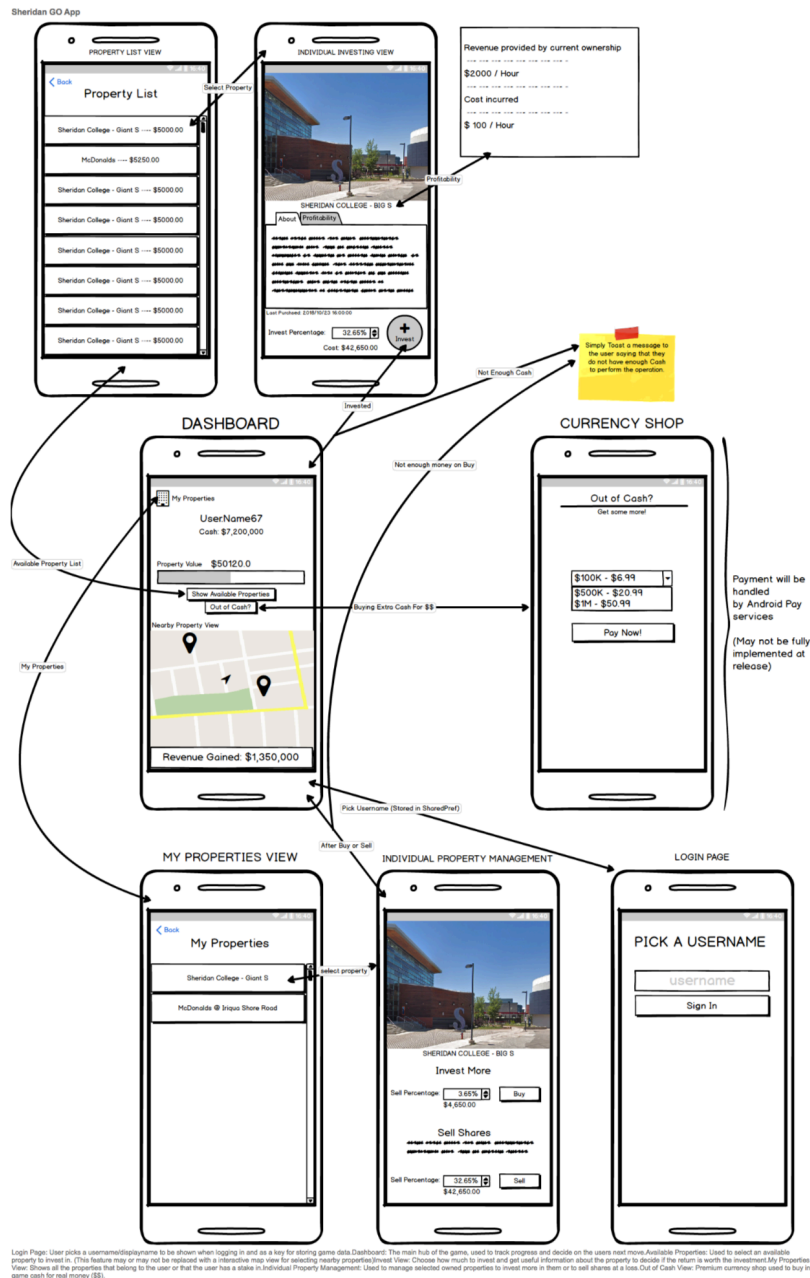
Android Features Being Used

- Menus (For application Settings)
- Possibly Recycler View (for listing properties)
- *SQL Database /or Google Firebase (for storing game data on the cloud)*
- *Networking*
- *Support Libraries (Google Places API /maybe Google Firebase)*
- Multiple Activities
- Shared Preferences
- Preference Screens
- *Multimedia (Images received from Google Places to show property)*

(NOTE: Some features outlined in this proposal are subject to change during implementation due to unforeseen technical difficulties)

Android App Mockup

See included latest version of *Android_Mockup.pdf* for full size



Sources for APIs

- Google Places: <https://developers.google.com/places/android-sdk/intro>
- Google Firebase: <https://firebase.google.com/docs/android/setup>