Dungeons & Dragons Game State Manager

Description

The application is intended to act as a helper and assistant when users are playing a game of Dungeons & Dragons. The application tracks information and events of the current game session being played, to provide players with an easier way to see the current state of the game, compared to keeping track manually on paper. It will provide users with an easier way to keep track of their current characters, as well as creating new characters or updating information on existing characters. Users will also have the ability to look at a monster journal, which shows all monsters that have been encountered so far, and allows users to add monsters that they encounter later. Users will be able to create accounts on the application where all of above mentioned information will be displayed. Users will be able to use the application either as a Dungeon Master or a normal Adventurer. A user playing as a Dungeon Master will be able to create a session, granting the session a name, password, and a limit on the amount of characters that can be in the session. A Dungeon Master will be able to set and trigger events such as setting a trap, and when an Adventurer walks over it, it triggers an event causing the Adventurer and/or their party to be notified of the event. A user playing as an Adventurer will be to join a session, if the user is nearby the session host (Dungeon Master).

System Configuration
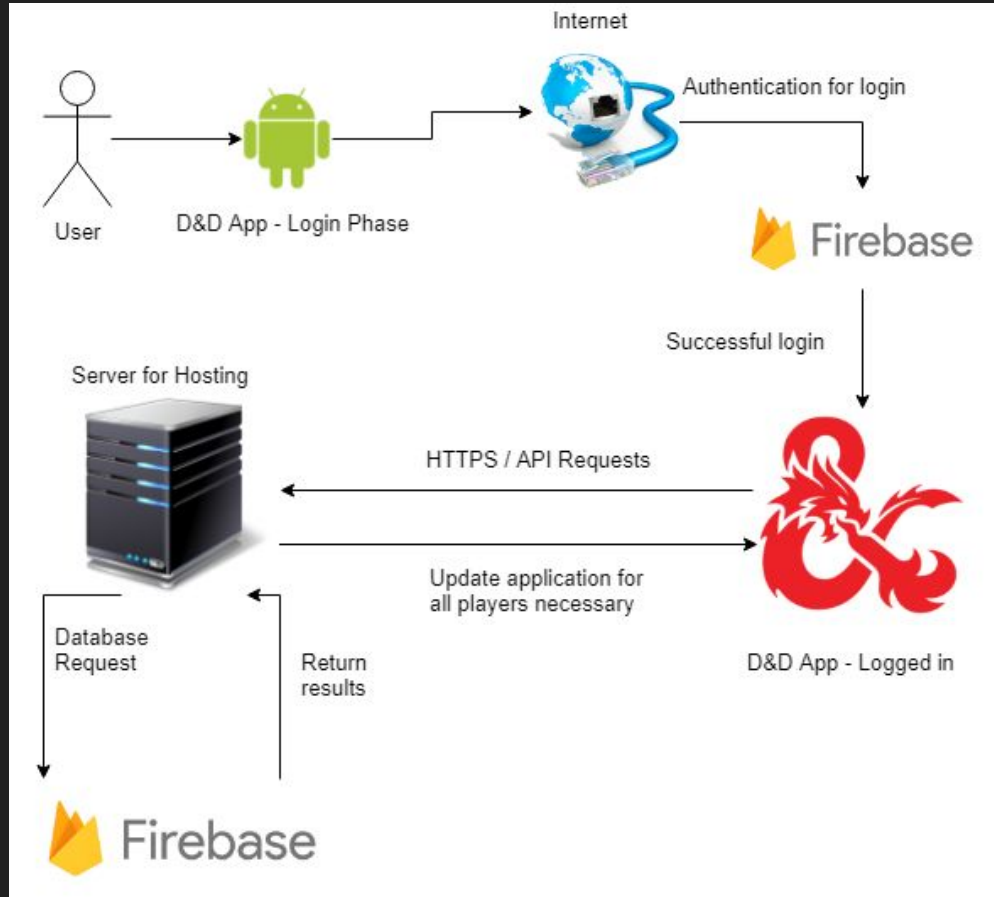
The picture here is to give you a brief overview of how the system works from logging you in, to how it handles requests to the server and the database for updating the state of the game.

Installation (if you wish to see source code as well):

The steps for the current installation process are as follows:

1. Install flutter - https://flutter.io/setup-windows/
   Follow the setup steps as listed on the website.
2. Install Android Studio - https://developer.android.com/studio/index.html
3. Install the flutter and dart plugins for Android Studio if not already installed.
4. Clone the source code from the GitHub repository - https://github.com/COS301-OptimizePrime/COS301-DnD/tree/develop
5. Run the following command in terminal: *keytool -exportcert -list -v -alias androiddebugkey -keystore %USERPROFILE%.android\debug.keystore* where *%USERPROFILE%* is your user directory. e.g.: C:\Users\John\
6. Look for the SHA1 code, it will have a format of: XX:XX:XX....:XX
7. Go to the group Firebase Console - https://firebase.google.com/ - and add your personal SHA1 key in Settings->SHA certificate fingerprints. Only authorized users (clients and developers) will have access to the Firebase profile while the application is under development.
8. After that, you should be able to compile the application via Flutter or Android Studio. To run via Flutter, type the following command: *flutter --run release* while your android device is plugged in

Note: APK installation guide is on the next page for an easier install for all users

Installation (if you wish to see only application itself):

The steps for the current installation process are as follows:

1. Go to the following link:
   https://drive.google.com/drive/folders/12HY6iUL4L1SwOfvVqIHtnCrvDLMY9uKf?usp=sharing
2. Download the APK from the folder
3. Copy it to your android device
4. Enable installations from untrusted sources on your device
5. Navigate to the APK via the file manager and install it.

Getting Started:

Using the application is very straight forward. When you open the application, you will be presented with 2 input fields for an email and a password, as well as 3 buttons: one to login with the details you have provided, one to sign in with a Google account, and one to register an account. The Google sign in option will open a list of Google accounts that are stored on your phone, and you simply have to choose one and enter your credentials in the steps that follow. To register an account, simply input a valid email address, and a password that is 6 characters or longer. Once you are signed in, it will take you to the Monster Journal viewer. To sign out at any time, simply press the "Sign Out" button in the top right hand corner of the application. To exit the application, simply close the application on your android device.

See the next page for screenshots

Screen 1

spongebob@cos123.com

••••••••••••

Enter World!

Google Sign In!

Register

Screen 2

Choose account for dnd_301_final

Add account

Register

Screen 3

spongebob@cos123.com

••••••••••••

Confirm Password

Register New Account

Login

Screen 4

Monster …

Sign Out!
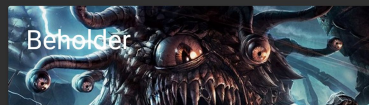
Beholder

One glance at a beholder is enough to assess its foul and otherworldly nature. A beholder's spheroid body is covered in …

Fire Giant

Master crafters and organized warriors, fire giants dwell among volcanoes, lava floes, and rocky mountains. They are …

Dragon

True dragons are known and feared for their predatory cunning and their magic, with the oldest dragons accounted as …

Using the system:

Once you have logged on, you will be greeted by a simple home-page, which displays two buttons: Join Game Session and Create Game Session.

If you wish to use the application as a normal Adventurer, then you will press the Join Game Session button, which will take you to a different screen which shows all of the possible sessions that you are able to join (functionality not yet implemented - button currently for mock up).

If you wish to use the application as a Dungeon Master, then you will press the Create Game Session button, which will take you to a different screen where you will be able to specify the name of the game session, along with a password for the session, as well as a limit on the amount of Adventurers that can join the session (functionality not yet implemented - button currently for mock up).

Using the system:

On the left side off the application, you will see the button for the navigation drawer. By clicking on it and expanding the drawer, you will be presented with a list of choices, some of which include: Home Page, Monster Journal. By clicking on one of these, it will take you to the respective screen. On the Monster Journal page, you will be able to view all of the currently encountered monsters, and by clicking on the card displaying the monster image and a brief description, you will be able to see extra information about the monster such as stats, etc.

Home Page

Sign Out!

The many worlds of Dungeons & Dragons are places of magic and monsters, of brave warriors and spectacular adventures. They begin with a foundation of medieval fantasy and then add the creatures, places, and magic that make these worlds unique.

Join Game Session

Create Game Session

D&D Game State Manager

Home Page

Monster Journal

Troubleshooting:

If you choose to sign in with a Google Account for the first time, and then proceed to sign out, and wish to sign in with Google again later, it will automatically sign you in with the new Google Account that you used in the previous sign in process. If this happens, stop the application completely, and reopen it. When you now choose Google Sign in, it will bring the pop up box into view, showing all Google Accounts you have used before. When you sign out now and proceed to sign in again, it will follow the correct process of first asking which account you would like to use.