Dungeons & Dragons Game State Manager

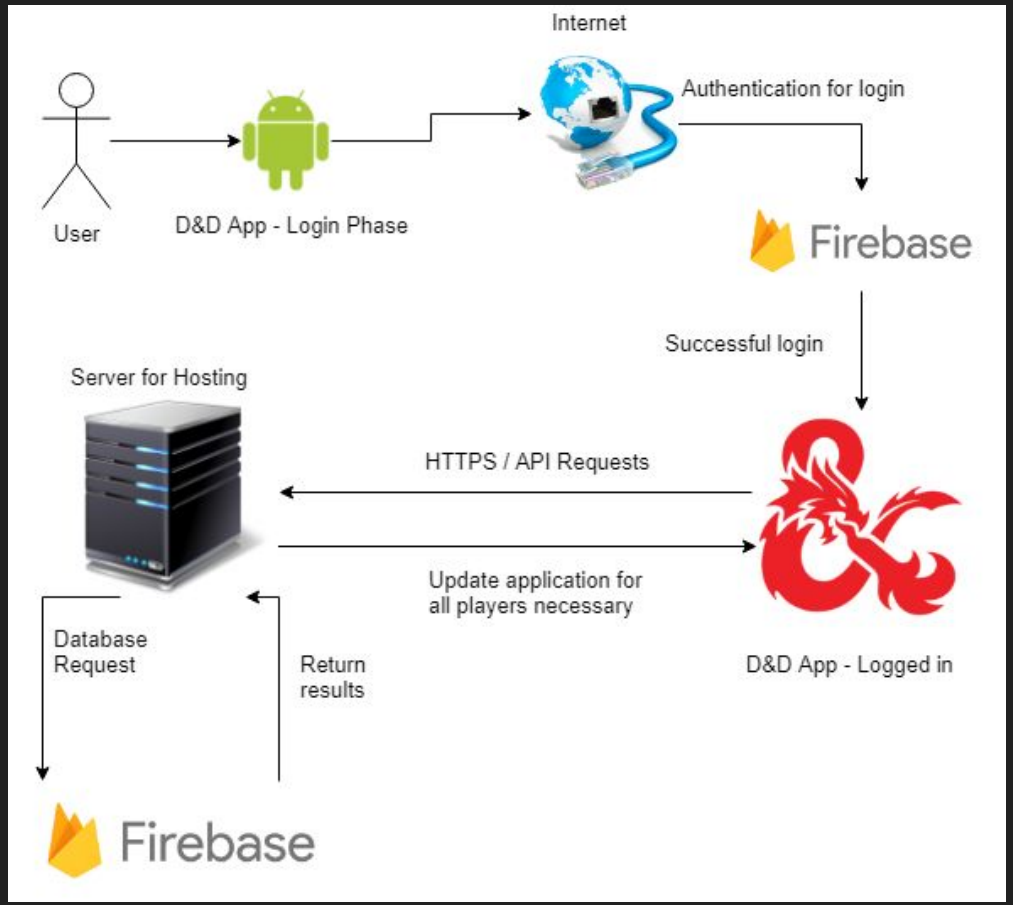
User Manual

Developed for Retro Rabbit by Optimize Prime

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

spongebob@cos123.com

••••••••••••

Enter World!

Google Sign In!

Register

Choose account for dnd_301_final

[redacted]

[redacted]

Add account

Register

spongebob@cos123.com

••••••••••••

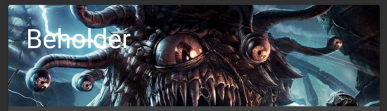
Confirm Password

Register New Account

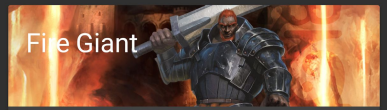
Login

Monster ...

Sign Out!



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

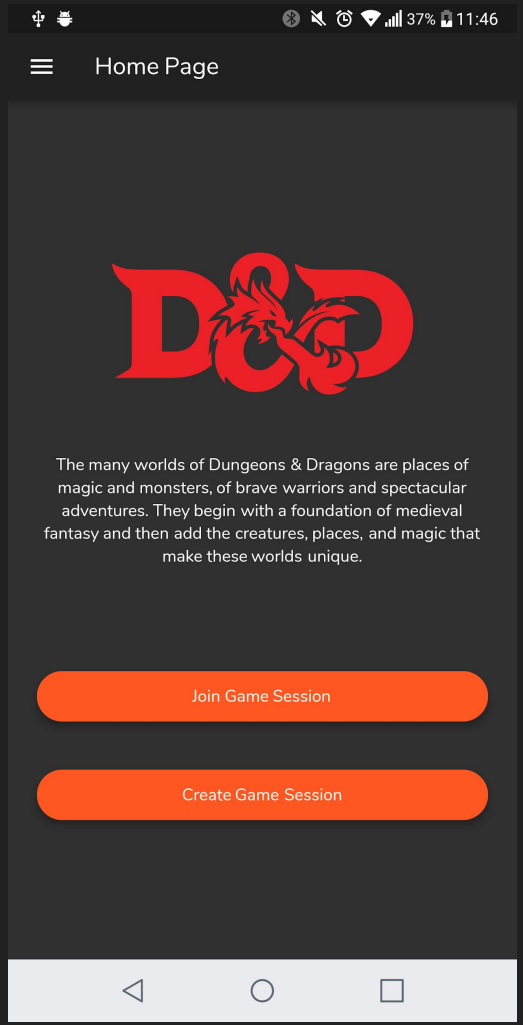


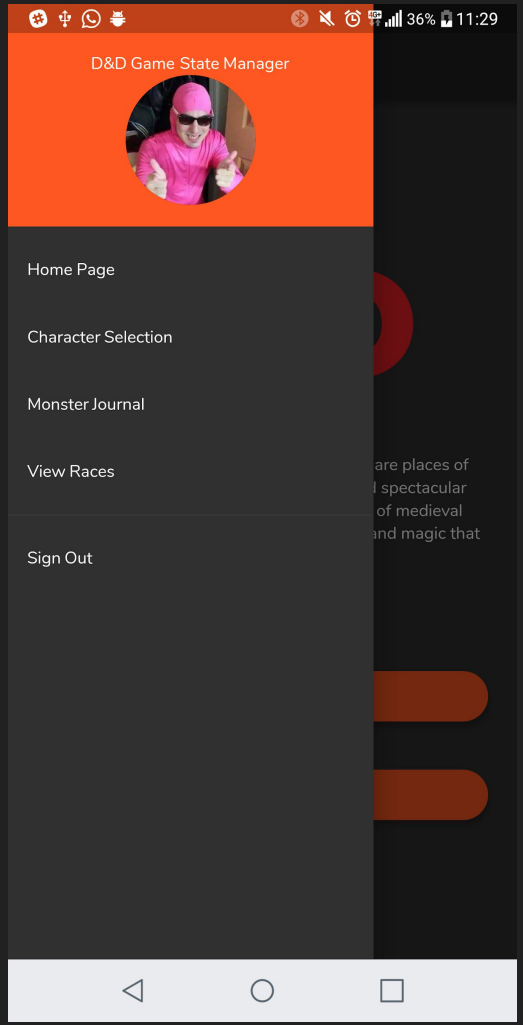
Master crafters and organized warriors, fire giants dwell among volcanoes, lava floes, and rocky mountains. They are ...

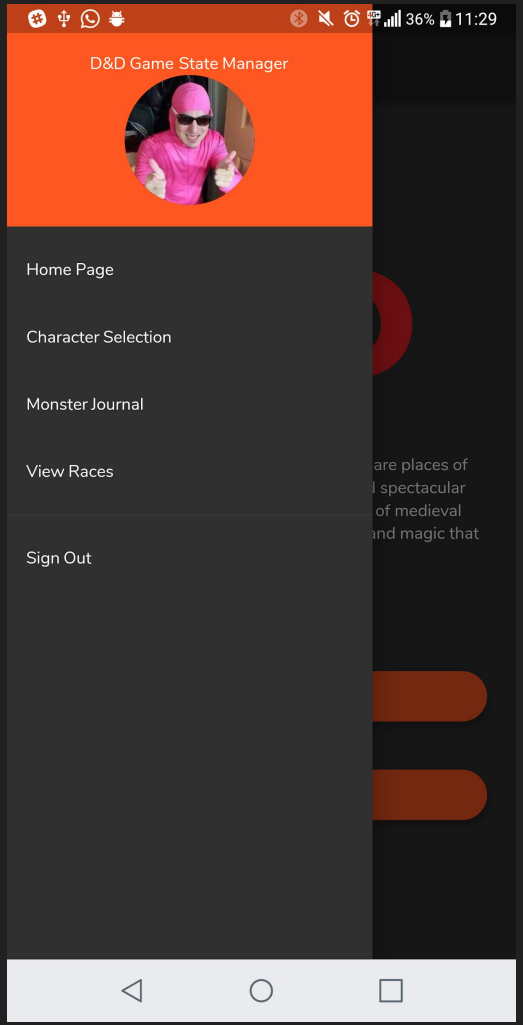
True dragons are known and feared for their predatory cunning and their magic, with the oldest dragons accounted as ...

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, Race Viewer, Character Creation. 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 name of the monster, you will be able to see all of their stats, such as combat rating, hit points, alignment, etc.


37% 11:46
Home Page
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


36% 11:29
D&D Game State Manager
Home Page
Character Selection
Monster Journal
View Races
Sign Out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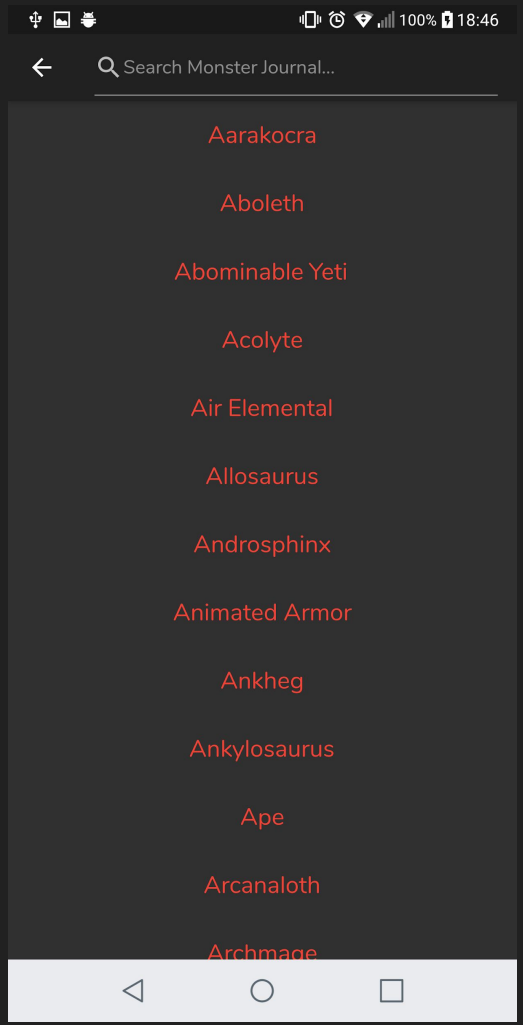
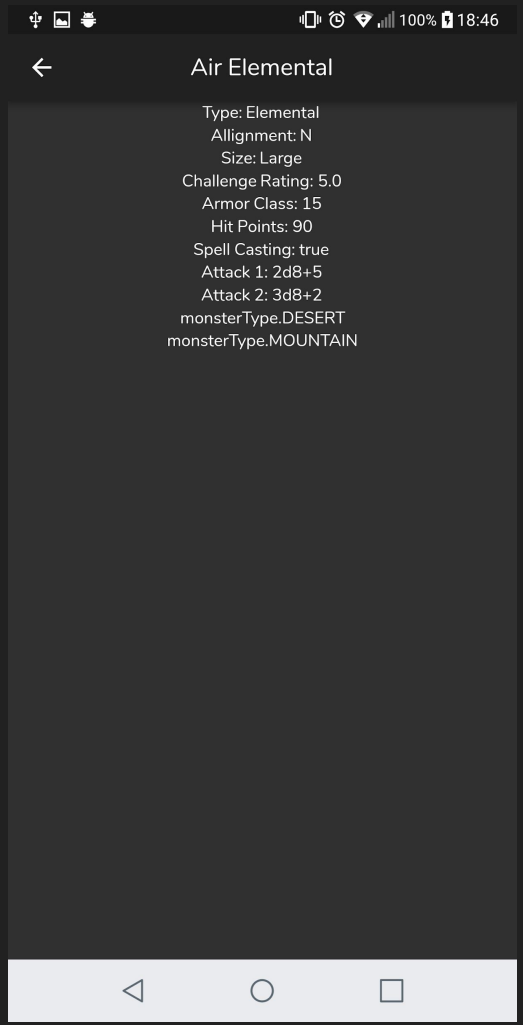

100% 18:46
Search Monster Journal...
Aarakocra
Aboleth
Abominable Yeti
Acolyte
Air Elemental
Allosaurus
Androsphinx
Animated Armor
Ankheg
Ankylosaurus
Ape
Arcanaloth
Archmage


100% 18:46
Air Elemental
Type: Elemental
Allignment: N
Size: Large
Challenge Rating: 5.0
Armor Class: 15
Hit Points: 90
Spell Casting: true
Attack 1: 2d8+5
Attack 2: 3d8+2
monsterType.DESERT
monsterType.MOUNTAIN

Using the system:

When a user wants to create a character, they will be taken to a character creation screen, where they can create a character by specifying a name for his character, choose a race, choose a gender, and choose a class. They are also able to specify the values for the 6 main stats of a main character, as well as things like the characters equipment, and additional flavour text such as traits, flaws, alignment, etc.

Once a user has created a character, they will appear in the character selection screen. Here they can either click on the character to get a detailed description of the character and their stats, or they can simply swipe from left to right over a character to bring up a small window which will show the character stats.

100% 18:37

Character Details

Tihan

Lizardfolk

Barbarian

Male

Stats:

Int +15 (2)

Wis +11 (0)

Str +14 (2)

Cha +20 (5)

Dex +12 (1)

Con +17 (3)

Those things that happend to me that make me want to do some other things.
The best person to ever exist ever
The best ideals a person can have, no seriously, they are the ideal ideals.
Everyone loves me anyway, isnt that fine?
My only flaw is that I'm flawless
Those extra goodies that make me special <3.

Thunderfury
Blessed Blade of the Windseeker

20

100% 18:45

Character Selection

Tihan

Lizardfolk

Barbarian

Male

Trevor

Lizardfolk

Sorcerer

In Session

Goo

Kobold

Bard

In Session

Using the system:

On the homepage, you will see two buttons: Join Session and Create Session. If you wish to create a session, you will take the role of the Dungeon Master automatically. The button will start the session creation process. Once a session has been created, a QR code will be generated on the Dungeon Master's device.

All players that are taking on the role of a normal adventurer, will then click Join Session, which will automatically open up their camera. All the user then has to do is scan the QR code generated by the Dungeon Master, and they will be taken to a screen which shows the session name, the host of the session (a.k.a. The Dungeon Master), and a list of all the other players currently in the session.

Once all players have joined the session, the Dungeon Master will click "Enter Session" where he will be taken to the same screen as the other users, and from here he will officially start the game session. (See the next slide for screenshots)

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

37% 11:32

Home Page

Scan the QR code to join!

Enter Session

Create Game Session

100% 18:45

Current Session Page

Welcome to: normal session with ID: 9ff74f61-0ed1-4614-8fee-3494e4f4d895!

The dungeon master for this session is: sorryfortheclutter@cos123.com!

Maximum users possible in this session: 6
Current users in this session:

spongebob@cos123.com

Ready Up

Using the system:

As a dungeon master, a user will be able to see all the characters in the current session as well as who the character belongs to. The dungeon master will also be able to add monsters to the session from the list of monsters in the monster journal.

As a normal user (referred to as an adventurer in this user manual), you will be able to see all your current characters in the session, as well as a screen where you can view the other users in your party (excluding the dungeon master). An adventurer will either be able to “upload” an existing character into the session, or create a new character in the session itself and then add that character to his currently active characters

(Screenshots will be added once the functionality is tested and works correctly)

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.