NUS Orbital 2022 - Milestone 1

Team Name: Encumbrance

Proposed Level of Achievement: Apollo 11

Motivation

Dungeons and Dragons (D&D) is a classic tabletop Role-Playing Game for all ages that has surged in popularity in recent years. Despite the game's renown, many people do not know how to get into the game as there are many numbers and rules that have to be tracked. With multiple published rulebooks and source books that are each hundreds of pages long, understanding and playing the game itself can become cumbersome. This is in addition to the umpteen different abilities, skills, and traits that can affect how you resolve your dice rolls composed from up to seven different types of dice.

Evidently, this can distract players from the core of the game: roleplaying and storytelling. Therefore, we want to lighten the load on players by automating features of the game while lowering the barriers of entry to new players.

Aim

We hope to make a simple companion web app to help people when they play D&D, making their lives easier by reducing the attention they need to spend on tracking combat-related statistics so that newer players will be more comfortable while experienced players can focus on role-play aspects of the game.

Additionally, we desire to enable more convenient scheduling to facilitate Campaign session-planning for busy groups.

User Stories

1. As a sad and busy student, I want to be able to meet with my friends for D&D on a day when we are all free.

2. As a new D&D player, I am confused by all the numbers I need to add to my dice roll just to hit my enemy. I just want to play the game!

3. In fact as a new D&D player I don't even have enough dice to roll 3D6 at once, let alone a collection of 7 different types of dice. I need dice to play :(

4. As a game master, it is taxing to remember the turn order of each player character and the status conditions applied to each one of them. I want an app that keeps track of everything for me.

Features and Timeline

A **web-based application** providing an interface for players and game masters to query real-time information on the state of their player characters while enabling commands to carry out actions which modifies said state. It will also enable limited interactions between game masters and players.

Implemented as of Milestone 1:
1. Primitive dice rolling buttons
   a. Roll a D20
   b. Roll with Advantage/Disadvantage

   Future Plans for Improvement (by Milestone 2):
   a. Roll different types of dice (as determined by user input)
   b. Roll multiple dice concurrently (as determined by user input)
   c. Calculate different values from dice roll by situation (to hit, saving throw) (tied with account character state)

2. Integration with database
   a. Users can create an account via a magic link (currently no account features have been implemented)

Future Update Timeline:
By Milestone 2:

a. Account features for players to input character information state and identify other players (accounts) as "party members"

b. Implement commands/buttons to adjust/query an account's personal character state

c. Chat interface that enables private messaging between party members
   i. Allow formation of a party/ "chat room" for players and the game master to interact
   ii. Enable whisper function between players/game master
   iii. Provide list of commands (alternative to button pressing) for players to query their character state

d. Buttons to enable game masters to send commands for the system to adjust player character state
   i. In single instances
   ii. Over time

By Milestone 3:

e. Scheduling system
   i. Shared calendar that all players of a group can see and edit.
   ii. Players can only edit their own schedule of free time.
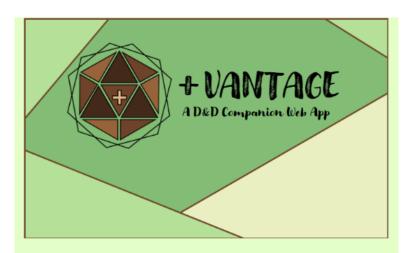   iii. Provides the optimal schedule where everyone is free on query.

Ongoing:
   f. Improved Interface Design

Tech Stack

1. HTML/CSS/Javascript
2. ReactJS
3. Supabase

Technical Sketch