Computer Engineering and Computer Science
491A Senior Project Product Proposal

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Team Name: The Decision Tree

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Product Name: D&D Character planner

Product Outline:

Product's Value/Purpose:

D&D Character Planner is an application for Dungeons and Dragons players to sufficiently plan out their character(s) in any Dungeons and Dragons session, involving all aspects of character creation, including various races, all of the base D&D character classes, their spells, and different paths specific to each class. The value in planning out the character(s) online before a D&D session is to optimize one's experience in traversing their travel map.

Vision:

The vision for D&D Character planner is to provide a user-friendly environment for both veterans and beginners to login and plan out their character(s) for exploration before they start their session. Based on information acquired from account registration, they may get helpful tips for planning out their character. Using this app will be helpful through these tips and visualizations along with bountiful information pertaining to their chosen path or class.

Features:

Member Name: Jacob Phillips

Medium to High Complexity Feature (Phase 1):

- **Character Creation Tool:** Allows the user to create a character step by step starting with name, class, stat distribution, subclass, spells, equipment, and starting gear. This tool will also involve a randomized algorithm to build characters conveniently with the click of one button.

Low to Medium Complexity Feature (Phase 1):

- **Map Generator:** A grid creation tool that allows the user to draw and manually create their own path for a simple grid map.

Feature for Next Release (Phase 2):

- **Character Visualizer:** This feature will involve UI elements like a two-dimensional visualizer which will display the created character live and allow the user to define attributes such as height, build, or general body type based on visuals.

User Types:

- **Root Admin (Super Admin):**
  - Responsibilities: Managing user accounts in emergency situations, initiailizing the character planning service, configuring system settings.
- **Admin Delegates (Admin):**
  - Responsibilities: Resetting passwords, adding domains, general user management, and assigning/removing permission sets.
- **Normal Users:**
  - Responsibilities: Logging changes in character progression past initial creation, using visualization tools to assist in appearance changes, creating maps, account creation.

Target Audience:

The D&D Character Planner caters more to beginners as most of the character creation will be guided along with beginner friendly UI and useful tips to guide users along as they assign starter stats, and choose certain equipment or spells. The planner will also cater to any D&D player of the genre classic fantasy.

Scope:

The scope of the D&D Character Planner involves the development of a Character Creation tool using UI elements such as a visualization tool, a Map generator, and a log for users to document encounters, which all of these will be developed for a web app that is supported on mobile and desktop chrome.

Minimum Viable Product:

- User registration and D&D experience level assignment
- Character creation with all classes, races, spells, gear
- Visualization to supplement the character creation process
- A logging system for D&D Encounters that are specific to created character(s)
- Permissions/Role management on both admin and normal user side

Business terms:

- **D&D 5e:** The term for Dungeons and Dragons 5th Edition as a reference to the 5th edition handbook in order to standardize the version so that all the base classes are used in the planner [1].

Technical terms:

- **Randomized Algorithms:** A randomized algorithm is a technique that uses a source of randomness as part of its logic [2].

Resources:

- [1]D&D5e: https://orkerhulen.dk/onewebmedia/DnD%205e%20Players%20Handbook%20%28BnW%20OCR%29.pdf

- [2]Randomized Algorithms: https://brilliant.org/wiki/randomized-algorithms-overview/#:~:text=A%20randomized%20algorithm%20is%20a,complexity%2C%20in%20a%20standard%20algorithm.