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CMSC 508 Phase 1 Deliverable

Project proposal: 1-3 pages
a narrative statement (plain English) with the definition of the real-world problem, providing contextualization, the scope of the system, and listing all expected information and functionality.

Dungeons and Dragons is a tabletop role-playing game with many moving parts and things to keep track of. Within the game are several different types of creatures and equipment, each with pieces and parts that interact and grant bonuses to each other. Our database will represent player characters, all of the components of a player character, and present information about player characters, enemies, and items in a way that is helpful, easy-to-read, and conducive for moment-to-moment gameplay.

The main user of our program is the player. The Player must belong to a Race, he or she must have a Background, and he or she must belong to a Class. The player may or may not have any number of Feats, optional stat bonuses given at certain times when leveling up. The Player is referenced in the database by an ID but has a lot more information associated with them. The database will track the player characters name, current level, maximum and current HP (hit points), a proficiency bonus which is a point boost for specific, class-based abilities based on the player's level, attributes, which are classified into Strength, Dexterity, Constitution, Intelligence, Wisdom, Charisma, and associated saving throws for each attribute, languages spoken, which skills receive the proficiency bonus, and a description of the character. Player characters may or may not carry equipment, and may or may not have received any magic items, but these can be added to the player's inventory if acquired. The features granted to a player by their class or otherwise will be represented in the database, along with any actions they may perform. If the player character is spellcaster, then any spells that they can use will be represented, with the user being able to change out which spells the are using. The database will calculate and display the bonuses given to certain attributes, skills, features, or actions that the player may have, while also allowing the user to override those values for things like temporary stat bonuses.

The database will also represent creatures, monsters, animals, or other humanoids that players may fight against during gameplay. Creatures are referenced by an ID. The database will also contain the creature's name, Armor Class, maximum hit points, speed, attributes, challenge rating, skill bonuses, resistances or weaknesses, senses, and languages spoken. Any features that the creature has or actions that it can perform will be represented in the database. If a creature is a spellcaster, any spells they can cast will be represented in the database.

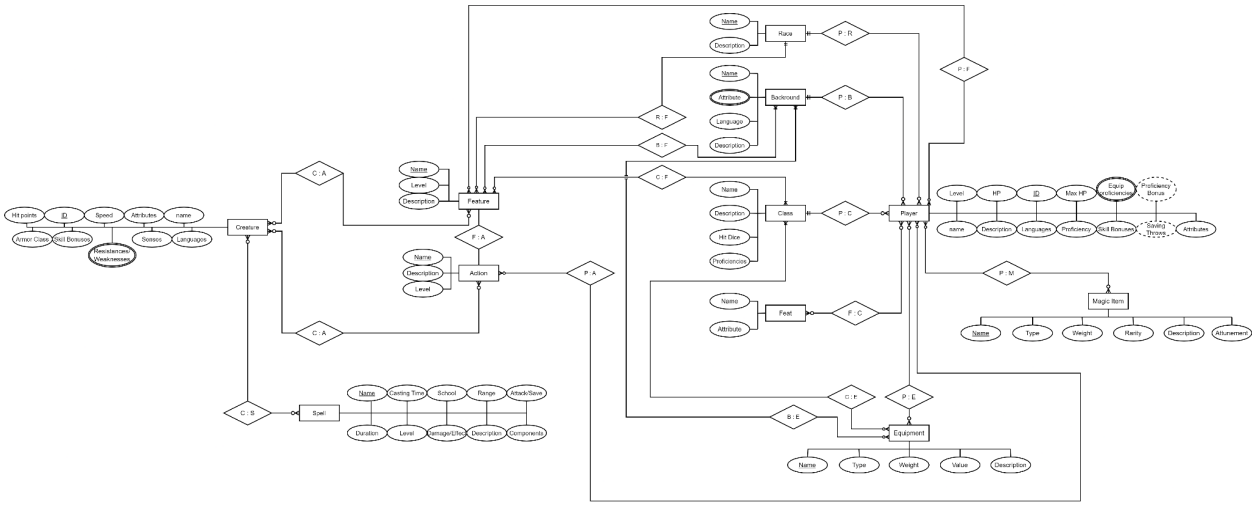
Within the database will be stored information about Items in the game that the player can interact with. These include Equipment, which can be worn by the player, and Magic Items, which have special properties and oftentimes are used by the Player. Equipment can be sold by or to vendors in shops and they have unique names as well as equipment types, weights, values, and descriptions. Magic Items do not have inherent values, but they do have types,

weights, rarities, attunement descriptions, regular descriptions, and unique names. Equipment and Magic Items can be possessed by the player in his or her inventory. Certain equipment can be given or unlocked through the player's chosen class and/or background.

Features are additional rules applied to characters, or creatures through either their class, race, background, or other external sources. Actions are things that characters or creatures can perform in and outside of combat. Features and actions both may or may not belong to a character or creature.

Many of the entities will have derived attributes that can be overridden by the user, the attributes that conform to this protocol will be as follows: a player's or creature's armor class, attribute scores, saving throws, and skill bonuses.

Users will be able to create player characters, assigning all of their relevant information, and the database will produce a character sheet that displays all of the information related to that player character. Users will also be able to create new creatures and add them to the database.



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