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Abeeseesdee Team Project Ideas

Note: All bolded words are preliminarily identified as classes or interfaces.

Project will use Java and will be for the command line, at least initially. Databases will be used to store the various types of **Monster** and **Items**

Design patterns that will be used:
- Strategy for assigning **Armor**, **Weapons**, **Items**, **Spells, Monsters** and **Characters.**
- Factory for creating **Monsters** and the **Items** they and **Characters** wield.
- Singleton for the **Dungeon**, because there will be one and only one dungeon that the players' **Characters** are progressing through.
- Flyweight pattern to generate **Rooms** and perhaps other things.

Some basic game layout ideas:
- Class that runs the DnD game is the **Dungeon**
- The dungeon contains some data structure that holds many **Rooms**
- **Rooms** will be filled with **Items** and **Monsters.**
- Both the **Monsters** and the players' **Characters** will be grouped in **Parties**.
- The players' **Party** must battle its way through various **Rooms** and eventually defeat a **Boss**, who will be in the final **Room**. **Rooms** of various shapes will be generated to keep the dungeon interesting
- Players will be able to choose from 4 different **Roles**: **Warrior, Rogue, Wizard** and **Cleric**
    - **Warrior's** main attributes are strength and constitution, and they will be able to equip all armor, weapons and shields. They fight toe to toe with enemies.
    - **Rogue's** main attribute is dexterity, and they are able to equip light armor and simple weapons, plus a few other light weapons. Rogues use their weapons and the element of surprise to attack.
    - **Wizard's** main attribute is intelligence. They are not proficient with any armor but can equip clubs, daggers, crossbows and staffs. Wizards attack using spells.
    - **Cleric's** main attributes are intelligence and wisdom. They use simple weapons and can equip all types of armor and can use non-tower shields. They emit an aura, fight with their weapon and, most importantly, heal.
- Players can level up over time and equip new and more powerful **Armor** and **Weapons**.
- Players can only equip **Armor** and **Weapons** that their class allows them too.
- The further players that travel into the **Dungeon** the more difficult **Monsters** will become, and the more powerful **Items** will become.
- The players' **Party** will **Battle Monster Parties** as they progress through the **Dungeon** in a turn-based manner determined by initiative rolls at the start of combat.
- The effectiveness of **Characters'** and **Monsters' Abilities** will be determined by their **Weapons** and **Armor** and their likeliness to land a successful attack will be based upon their underlying stat scores.