

# Dungeons and Dragons

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### CSCD454

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This is a turn based dungeon crawling rpg implemented in Java. Several design patterns are implemented in this project such as: Singleton, Abstract Factory & Factory, Strategy, Template, Null and Prototype. The game also uses a lightweight local database (SQLite) to store data about monsters, abilities and items.

The game proceeds in a linear fashion, rooms are generated as you go and the last room contains a boss which is significantly stronger than the other monster.

At the start of the game, the 'user party creator' prompts the user to create the player party and choose the characters and their stats and abilities, then the game proceeds to generate a room which in its turn randomly generates a hostile party and the battle starts.

A party can contain any number of characters between 1 and 5, each character can be made from one of 4 classes: Rogue, Cleric, Warrior and Wizard. A character has stats such as dexterity, strength, wisdom intelligence and more. Each character class has a set of abilities they can learn from, the characters empower their abilities using stats which is done differently depending on the character class.

If a player party successfully defeats the hostile party in the current room they are rewarded with a chest which contains random items as well as experience points. XP points are used to level up the characters. When a character levels up, it earns new stat points and gets to learn a new ability or level up an existing one.

The hostile parties' difficulty increases based on the player party levels. When the last room is reached, a boss is generated along with other monsters. The game ends when the boss is defeated or the player party has been slain.