

DungeonsAndPythons

Python console application, which represents a simplified versions of the original game “Dungeons & Dragons”. The application is build entirely using OOP and its good practices and principles.

Project structure

The game is divided into a few components - dungeon, entities, items, utils, resources and tests. - Dungeon - contains all the ‘business’ logic - how everything interacts with the map and what happens at each move and at any position of the map. - Entities - all of the ‘characters’ in the game - heroes, villians etc. - Items - all of the usable objects in the game - weapons, spells etc. - Resources - all of the static content for the application - .txt files, constants etc. - Tests - unit and component tests of the more important pieces of the code.

Goal of the game and gameplay

How to play the game:

1. Use arrow keys or W, A, S, D buttons to move your character on the map
2. Use special commands to view information:
 - ‘h’ - will display the help message
 - ‘c’ - will display info about your character
 - ‘k’ - will display map keys
 - ‘l’ - will display dungeon lore
 - ‘p’ - will display credits
 - ‘q’ - quit

The goal of the game is to reach the exit of the dungeon. (More information here)

Battles

- Once you step on a field with enemy, you will automatically enter into battle with that enemy
- The battle is turn based - on the first turn you can attack, on the second the enemy and so on.
- You can choose type of attack - weapon or spell attack
- Enemy attacks are optimized for most damage given their equipment
- At the end of the battle if you have lost, you will either respawn at one of the respawn points or it will be game over if there are no more respawn points

Implementation

- Written in Python
- Instead GUI everything is rendered directly in the terminal
- Used design patterns such as mixin and factory

Interface and CLI

- UI is entirely terminal based as the aim was to be as simplistic as possible
- The application uses argparse to determine type of interface - symbolic or emoji
- At different stages of the game you will be able to use different commands

Tests and CI/CD

I added a bunch of tests to assure the best functionality of the application. Also created a small CI/CD with GitHub actions for automated testing (no deployment for now).