

# PROJECT 'dungeon\_dudes'

Design

MOD O - OOP 2B

170D WOBC

Class 23-001

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## ***1 Purpose***

The project *dungeon\_dudes* is an object-oriented program in Python which are to create a Character or Monster for a Dungeon-Crawler style RPG in accordance with an already existing codebase. The Character or Monster must match the associated Character Stats and information found in the Manual for Dungeon Dudes. This is in order to teach us the appropriate way to integrate work into an existing codebase and master the art of git collaboration.

## 2 *Design*

The design for the Cleric *dungeon\_dudes* is relatively straight-forward, as we simply just need to follow the character sheet.

Using the Fighter CharacterClass as reference, we create a BaseClass for the required item generation with the correct or slightly modified values to match the Cleric. Most of the code can be appropriated.

For the Cleric CharacterClass itself, the `__init__` values from Fighter carry over as well, with modified values for levels and stats. Additional bools are created to track the different skills for half damage, no damage, etc. The modifiers for Offense and Defense carry over as well.

Afterwards, we create class methods unique to the cleric: `divine_blessing`, `improved_healing`, `heal`, `radiance`, `prayer`, `avenger`, and `greater_heal`. These are written in line with the Character Sheet found in the Guide adoc.

`level_up` is mostly the same, except for the values to match the given Character Sheet

`take_damage` requires the most modification compared to the Fighter CharacterClass, as most of the special Passive skills are calculated and tabulated within `take_damage`.

`win_battle` is essentially a reset and is largely unchanged except for resetting our Cleric's bools for Passives and Special Abilities. Any other methods needed from the Fighter CharacterClass carry over verbatim with no issues.

### 3 Diagrams

For additional points of reference, the Fighter CharacterClass is included as a point of comparison to the implementation of the Cleric CharacterClass.

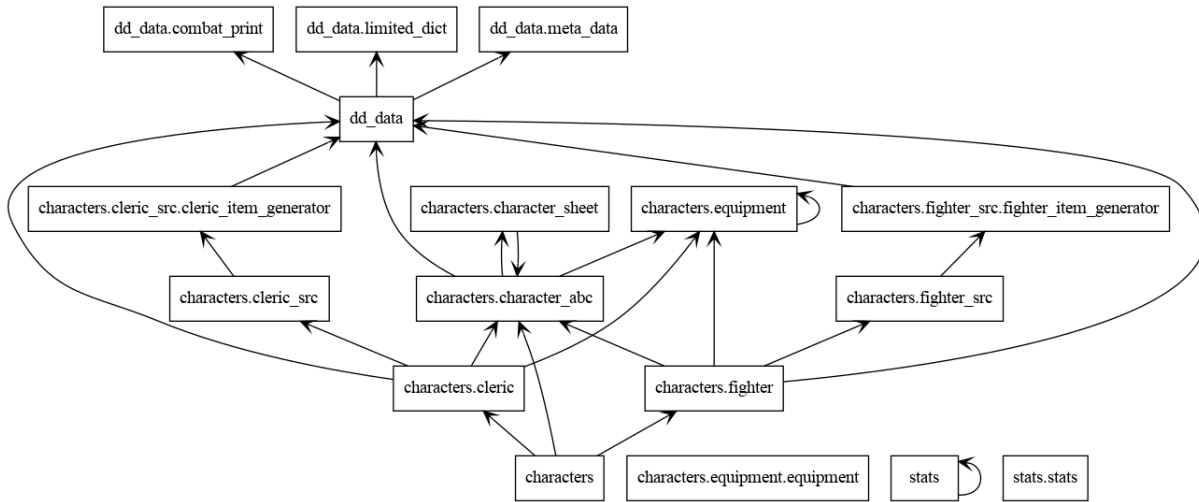


Figure 1: Packages diagram for the Cleric in *dungeon\_dudes*

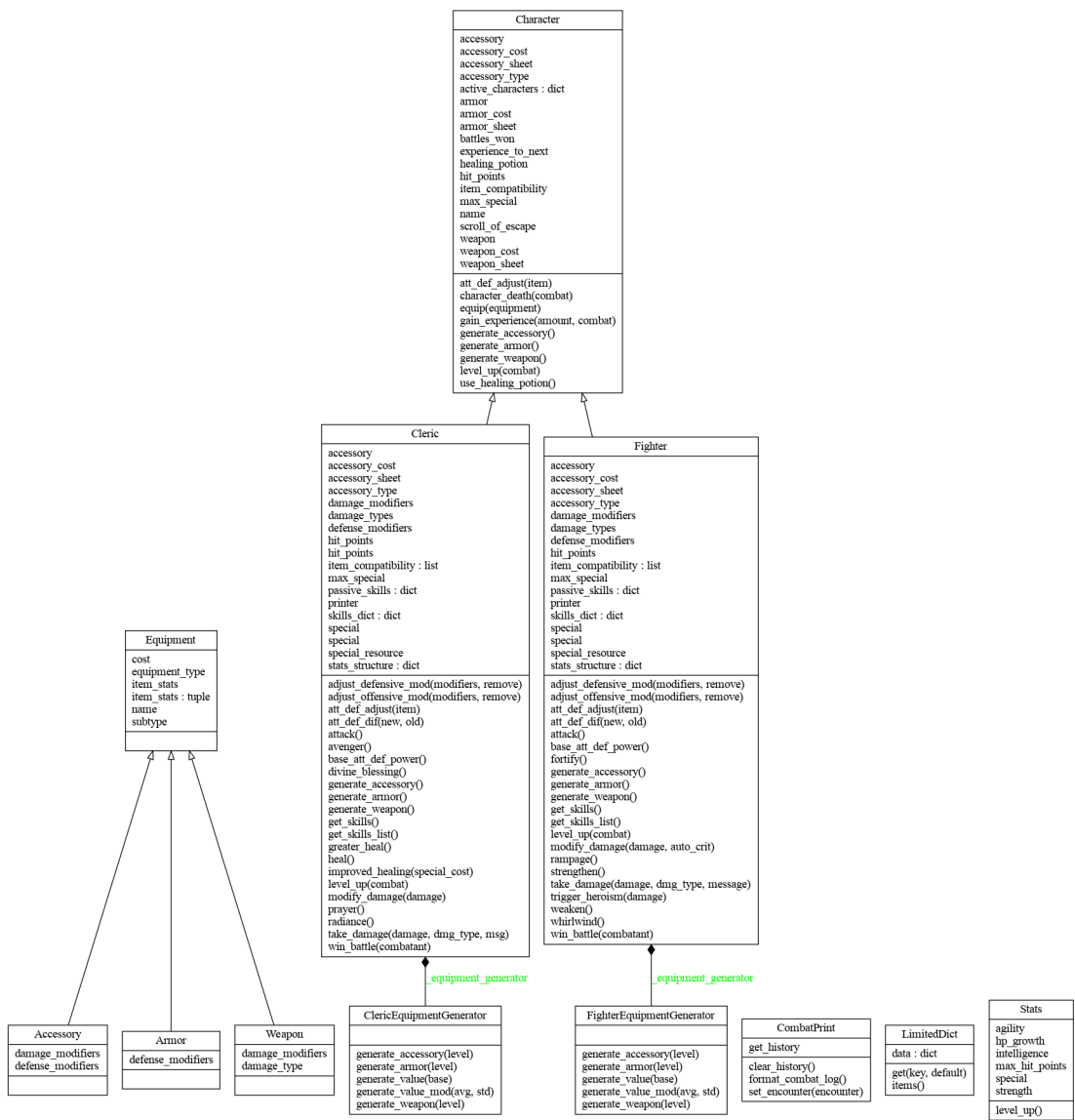


Figure 2: Classes diagram for the Cleric in *dungeon\_dudes*