

COURSE: SOEN 6441:ADVANCED PROGRAMMING PRACTICES

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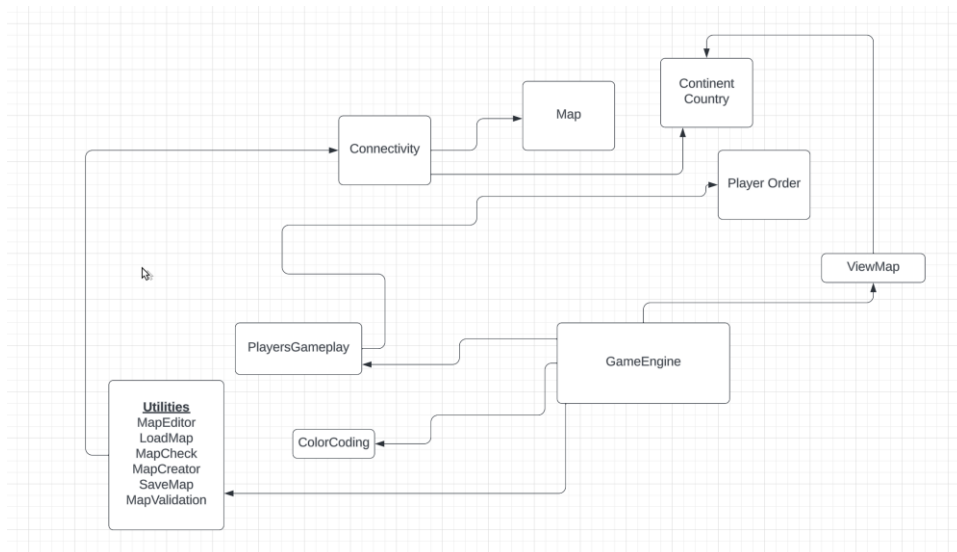
PROJECT: WARZONE GAME BUILD 1

TEAM 16: ARCHITECTURAL REPRESENTATION

TEAM MEMBERS:

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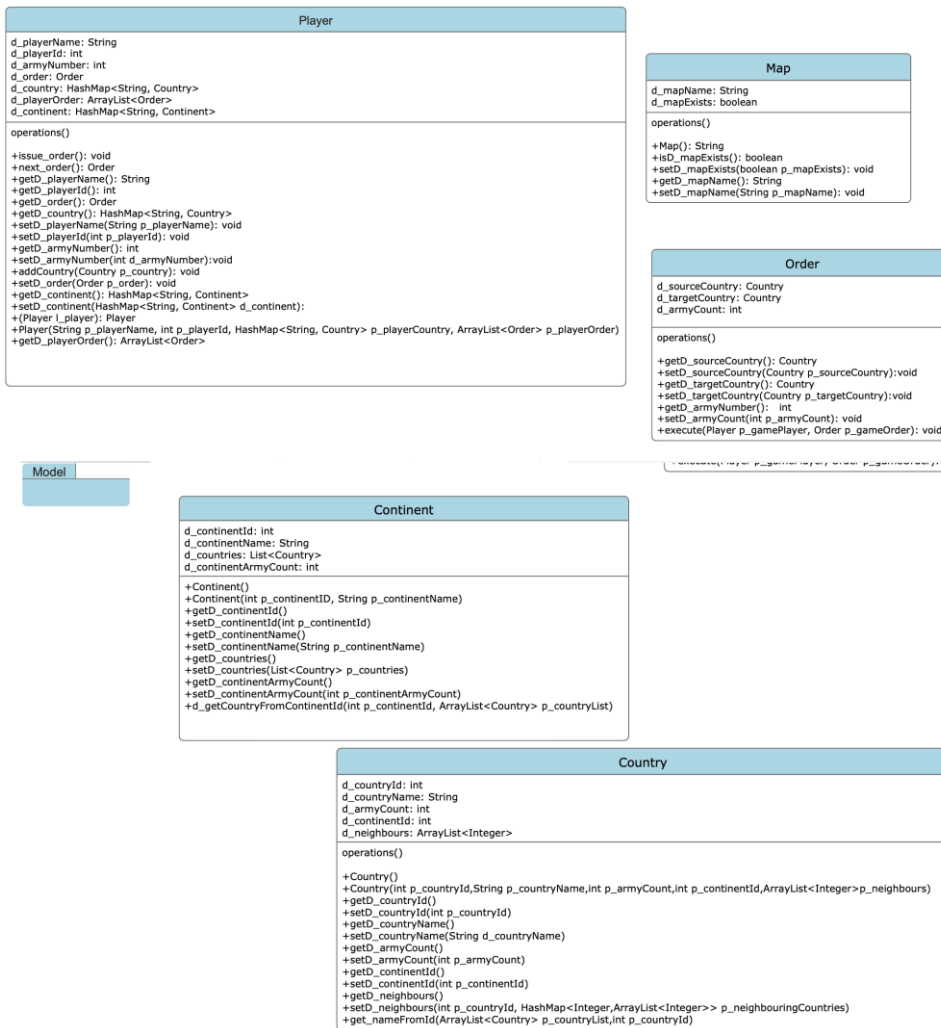
ARCHITECTURAL DIAGRAM:



The above designed architectural diagram contains package with class operations and functionalities as stated:

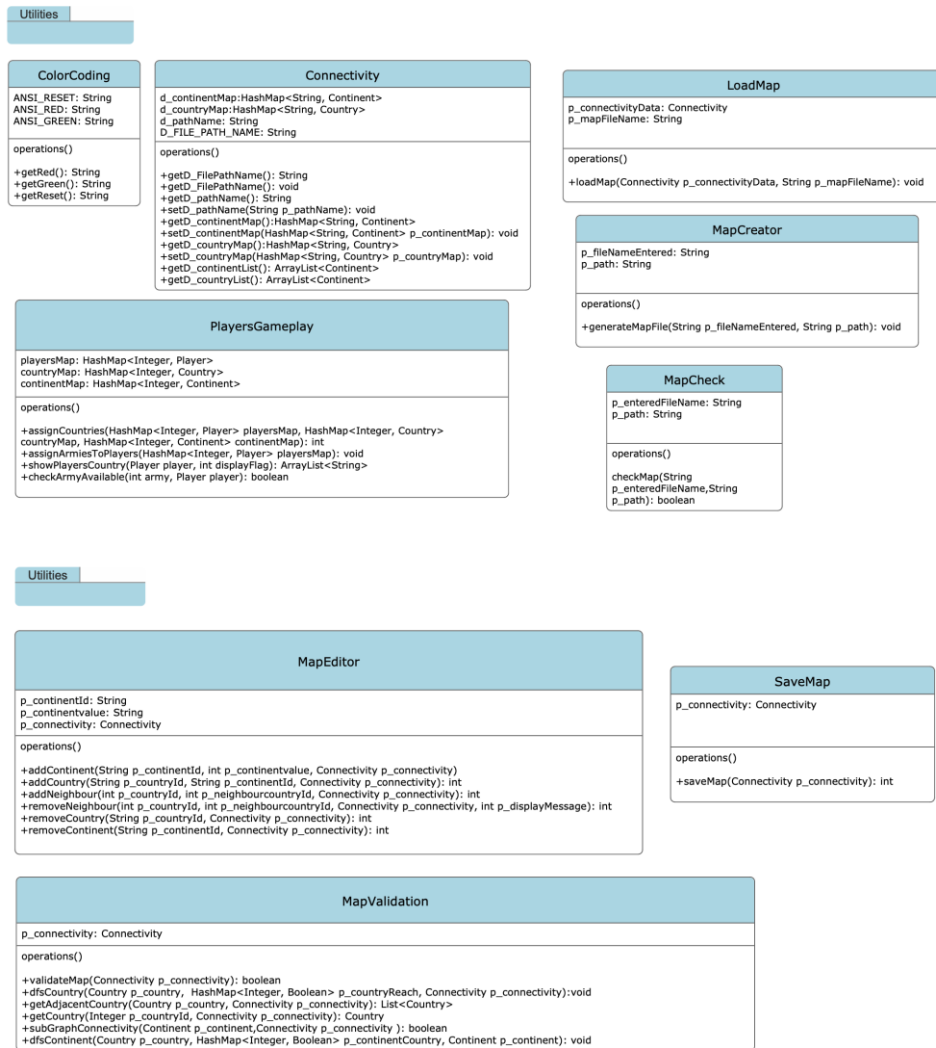
1. Model

Model



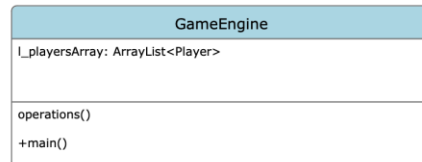
- Continent: The continent class is responsible for providing the geographical continents to the gameplay map.
- Country: The Country class represents the country in which the game is supposed to be played. Additionally, it takes the country name, the armies deployed and sets the neighbouring countries.
- Map: Represents a map file and checks the existence of it as well as manages the country and continent objects.
- Order: The order class specifies a sequence of orders in which the armies are deployed from the source country to the target country.
- Player: This class represents a player in the game and gives the detail of the player along with the armies, country and continent owned by the player.

2. Utilities



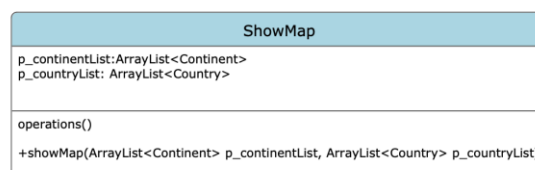
- Connectivity:** This class serves as a medium to transfer data from one part of the map to other and binds it. It maps continent and countries names to their objects allowing a smooth gameplay.
- LoadMap:** Responsible for loading the map selected by the user.
- MapCheck:** Responsible for checking whether the map exists in the directory path or not.
- MapCreator:** Responsible for automatically generating a new map when the user asks for it.
- MapEditor:** The MapEditor class facilitates the adding and removing of countries, continents and neighbours in an existing map.
- MapValidation:** It is responsible for validation of the entire map to check for correctness.
- PlayersGameplay:** Manages the entire gameplay of the player from assigning armies to checking it availability to deploying.
- SaveMap:** Responsible for saving map after the user has created a new map or modified the existing ones.
- ColorCoding:** It provides ANSI escape codes for displaying texts in red, green and setting it to default.

3. Controllers



- a. GameEngine: It is effectively responsible for management of the entire warzone game through its phases and commands. It contains the main() class which provides the structured approach to the gameplay.

4. View



- a. ShowMap: Responsible for displaying the continents, countries, army counts.