OOSE LAB EXAM

The project is a text-based adventure game that randomly generates an open
world for players to explore.

The game world is represented by a 2D grid of coordinates that are populated by
various types of encounters.

The users have the option to set the grid size to any size starting from (2,2).

It follows the Object-Oriented Programming (OOP) paradigm and utilizes various
design patterns to achieve a robust and

scalable structure.

The Factory Method pattern is used to create different types of encounters in
the game. The EncounterFactory abstract

class defines the method for creating an encounter, and its concrete subclasses
implement this method to create

different types of encounters.

The Singleton pattern is used for the Player class to ensure that only one
instance of the Player object exists

throughout the game.

The Observer pattern is used to notify the Player object of any changes in the
Encounter objects within its proximity.

UML DIAGRAM