

OOSE LAB EXAM ADDITIONAL FEATURES REPORT

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Introduction

I have added several new features to the existing game that makes it more engaging and exciting for users. This report outlines the features I have added and their functionality.

New Features

1. **Restart Game:** The new game now allows users to restart the game once it has finished. This feature is essential as it enables users to play the game repeatedly without having to exit the application.
2. **Customizable Game Map:** The game map size is now customizable, and users can set it to any *nn matrix greater than or equal to 2*2*. This feature also supports non-square matrices, making the game more flexible.
3. **Map Changing Encounters:** The new game now includes the `ShrinkMap()` encounter that shrinks the map by a size of 1 every time it is encountered. When the user encounters this encounter, there are no `NearbyAlerts()`, only the image of the shrunk map, and a scary message is displayed.
4. **Encounters Changing Encounters:** The `StormyWeather()` encounter is another new feature that makes everything around the current encounter disappear. So, the user has no idea what is around them. There are no nearby alerts, and no images on the map. This encounter changes other encounters as they are temporarily made invisible.
5. **Console Input:** The user now has the ability to do everything through the console, so nothing needs to be added to the `main()` class. The user can enter the grid size, their name, and the movement (north, south, east, west) from the console.

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6. Game World Map: The game world map now displays a literal map made up of boxes to represent each coordinate. There are Unicode characters to represent the player, the starting point, and all possible encounters. Every time a player makes a move, the map changes to display their current position and show what is around them, also printing out the nearby alerts and their exact grid coordinate on the screen.
 7. Additional Features: The grid (0,0) is always set to the starting point encounter to ensure consistency in every game. All other encounters are generated randomly. The game also includes at least one FinishPoint encounter in every game to allow the player to finish the game. Players can only move to adjacent squares from their current position as I believe that this makes the game more interesting as users have to find their way out and make good decisions. However, the code also includes the ability to make the player move wherever they want based on the changes they want in their north-south and east-west coordinates. This feature is commented out in the play() method but can be used if desired.

Conclusion

In conclusion, the new features added to the game make it more interactive, engaging, and flexible. With the ability to customize the map, console input, map changing encounters, and other exciting features, users can enjoy a unique experience every time they play the game.