CSCI 115 Maze Project

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Introduction and Win Conditions

This project is a 2D, turn-based game where the user plays as a character who must navigate a maze and either destroy all the enemies or get the treasure. If either of the previously mentioned conditions are met, the player wins. If some enemy moves onto the player, the player dies and the user loses.

Movement

The user can move the player by using WASD on the keyboard. They can shoot arrows using the arrow keys.

W = Move Up Up Arrow = Shoot Up

S = Move Down Down Arrow = Shoot Down

A = Move Left Left Arrow = Shoot Left

D = Move Right Right Arrow = Shoot Right

Arrows

The player starts with 1 arrow and can pick up more arrows off the ground by walking on top of tiles that have arrows on them. The number of arrows the player has is indicated by a picture of an arrow near the top of the window. If the player does not have any arrows, then they cannot shoot.

When an arrow is fired, it will travel in the direction fired. While it is travelling, the player cannot take any actions and enemies will not move. If the arrow hits a wall, it will be destroyed. If the arrow hits an enemy, the enemy will die. The arrow will not interact with the player.

Turns

The game is turn-based, which means that the player has a turn and the enemies have a turn. In a turn, the player can move a single tile or shoot an arrow. Doing either action will consume your turn. This means that if you shoot an arrow, then you cannot also move in the same turn. Likewise, if you move a tile, then you cannot shoot an arrow in the same turn.

When the turn changes to the enemy turn, the player will be locked from performing any actions. Each enemy in the level will have a chance to make their move towards the player using the shortest path. After each enemy has made their move, the turn will change back to the player’s turn.

Enemies

A level may contain multiple enemies. When some enemy attempts to move towards the player, they will take the shortest path. However, If the tile the enemy is attempting to move onto already contains a different enemy, then the enemy will stay in its position and wait for the tile to become available. Enemies will also never move onto a wall tile. However, enemies can move onto any other type of tile in the level.