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CSCI 115 Shortest Path Project

Game Report

The program first starts off by allowing the user to pick between two maps. Once the user selects a map then the game scene will appear with four characters all at different places. No two characters were allowed to be on the same cell. Map one should have less high mountains than map two which will decrease the amount of destinations where certain characters cannot travel through. The user should first left click to select a character and then right click to select a target destination. Each character has a rule to where they cannot travel. The human cannot go through the water or high mountains. The bird cannot go in the desert. The fish can only stay in the water and the frog cannot go through the mountains or desert. Once the user selects a target destination, the goal of the character is to find the shortest path towards reaching the destination while avoiding the certain areas they cannot pass through. If the user selects the same cell as the character on the map, the program will display a message saying the source and destination are the same. If the user selects a destination that is not allowed for that character then the program will tell the user the destination is not possible. When a character is moving towards a destination and the user tries to click on another area in the map, the program will display another message prompting the user to wait until the shortest path action is finished. While a player is in motion, no other player is allowed to be active. The user is able to repeat this process over again while the game is running. To quit the game, the user must press Q or simply exit the window.