Assignment 4: Hunt the Wumpus Drew Mainprize 1045298

For assignment 4, I rewrote and refactored the original BASIC code for the Hunt the Wumpus game in Fortran. The game prints the players current location and the options to shoot or move into different rooms. The game supports all the hazards of the original game being bats that teleport the player randomly, bottomless pits that instantly kill the player, the threat of shooting oneself in the back and the Wumpus itself. The program utilizes many feature of the Fortran language including subroutines, limited go to statements, string formatting and Fortran's simple syntax for arrays.

I found it slightly difficult to translate the BASIC code into Fortran as I have never seen BASIC code before. Some of my difficulties had to do with the go to statements that I found to be quite similar to the Fortran statements from the old code in assignment 1. Those go to statements also gave me trouble as there was so much jumping around in order to fully trace the code. Not only that but converting them to proper if statements felt like I was doing them backwards because satisfying a condition meant moving to another part of the program instead of executing the code below, which was actually the else condition.

Another small issue I had was with arrays in BASIC. I found the syntax to be slightly confusing and ended up just ignoring the arrays and writing my own for the cave that made sense to me. This saved me a bunch of time instead of trying to make sense of the arrays from the original code. The variable names from the original code were also difficult to decipher, but after I successfully did that the code was very readable and translated well to Fortran.

Overall, I would consider the syntax for BASIC and Fortran to be fairly similar, certainly the workflow of the two programming languages was the same. They are both capable of pretty much the same things in the same ways, the only main differences being syntax. I also had difficulty with Fortran's maximum column count, as I did with assignment 1. It was difficult trying to make the program readable anytime I had statements that spanned several lines with '&' all over the place. However, I managed to trim my code down a fair bit from what it was to limit these multi-line statements and make the code easy to read.