CS 611
Assignment 1
Sliding Puzzle

Specifications: Your game should be a single player game played in the terminal (do not write a graphical component for this game).

The program should begin with a welcome message indicating the purpose of the program. You should then allow the user to customize information about the player as well as the puzzle. The program should then generate a random shuffle of the puzzle for the user to solve. The player will then attempt to solve the puzzle by entering tile values in the terminal that simulate the sliding of the piece. The puzzle is solved when all tiles have been moved around such that the ordering of the tiles are ordered from least to greatest from top left to bottom right (see example). If the puzzle has been solved, it should congratulate the user and prompt to play again or quit. The following is a simplified example on a 3x3 implementation:

Welcome message and other input/output information!

```
+--+--+--+
| 1 | 2 | 3 |
+--+--+--+
| 4 | 6 | 5 |
+--+--+--+
| 8 | 7 |   |
+--+--+--+
```

Player, which tile do you want to slide to the empty space? 7

```
+--+--+--+
| 1 | 2 | 3 |
+--+--+--+
| 4 | 6 | 5 |
+--+--+--+
| 8 |   | 7 |
+--+--+--+
```

Player, which tile do you want to slide to the empty space? 6

```
+--+--+--+
| 1 | 2 | 3 |
+--+--+--+
| 4 |   | 5 |
+--+--+--+
| 8 | 6 | 7 |
+--+--+--+
```

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Player, which tile do you want to slide to the empty space? 5

```
+--+--+--+
| 1 | 2 | 3 |
+--+--+--+
| 4 | 5 |    |
+--+--+--+
| 8 | 6 | 7 |
+--+--+--+
```

… etc …

Player, which tile do you want to slide to the empty space? 8

```
+--+--+--+
| 1 | 2 | 3 |
+--+--+--+
| 4 | 5 | 6 |
+--+--+--+
| 7 | 8 |    |
+--+--+--+
```