

# CSCI-101 Programming 1

## Week of Nov 13 - Lab 13c

### INSTRUCTIONS

In MazeGame.java you will find two methods (**validMove** and **playGame**) that have empty blocks of code, your job is to complete them.

The game uses the w (up), s (down) , a (left) and d (right) keyboard keys to move around the maze.

The user's current position is stored in the fields **curRow** and **curCol**.

Add code to **validMove** so that it returns **false** if the character passed in (w, a, s, or d) would cause the user to go outside the bounds of the maze or land on a wall glyph (i.e. '\u2588'); otherwise the method returns **true**.

Add code to **playGame** so that it behaves as follows:

- Create a **Scanner** that can read from the keyboard.
- Repeatedly do the following until the user presses the **e** key to exit.
  - Call **clearScreen** to clear the screen.
  - Print to the console the String that is in the field named **message**.
  - Print the game board to the screen using **printBoard**.
  - Print to the screen the values in the **health** and gold **fields**.
- If the value in **health** is less than or equal to zero, print "**You died!**" and return.
- If the user is currently in a **Cell** that is equal to the **Cell** whose reference is stored in the **end** field, print "**You WIN!**" and return.
- Ask the user to choose a direction and print a menu that provides the user with valid options (w (up), s (down) , a (left) , d (right), e (exit)).
- Read in the character typed by the user.
- if the user typed an invalid direction, set the **message** field to "**Invalid move**" and decrease the user's **health** by 5; otherwise call **makeMove** passing to it the direction entered by the user.