**Lab 8: Pre-Lab (pt. 2)**

Instructions: Print off this pre-lab form, complete and turn it in by the start of your lab section. If there is a demo associated with this lab, you can turn it when you do your demo.

**Part 1: A-Mazing DS4 Race Pt 2 Introduction**

Start by reading through the entire lab document prior to coming to lab so you know are able to have a better idea of what we are doing this week. In addition to that, feel free to start on the lab, or bring any questions that you may have so the TAs can go over them. Next, answer the questions below based on having read the lab document.

**Question 1:** How can you check in your code that the avatar will not go through walls or out of bounds of the maze?

For checking the walls, check the left and right of the character and see if there is a star before each movement, if there is no move. For the bounds, check the location of the character and see if its on a wall or not by how big the screen is

**Question 2:** What hint is given to use for generating the maze?

Using the rand function %100.

**Part 2: Making The Maze**

This section focuses on getting you to start thinking about how can generate and develop the maze in a logical sense. The goal with this is to hopefully make it easier to come up with the necessary code. There are 2 questions to this part, the second is on the following page in order to provide enough space for your work.

**Question 3:** What is a logical expression that you can use to implement the hint given about generating the maze and the difficulty that is given by the user via the command line?

Use rand%100, and then check to see if that number each time is higher or lower than the difficulty, and if its lower than place a wall there, higher then move on to the next spot.

**Question 4:** Write what you think the C code would be for the generate maze function. Make sure to make use of the logical expression that you came up with for question 3.

Iterate over the screen {

Int num = rand%100

If (num < difficulty) {

Place a wall here

}

}

**TA Check Off:**

**Pre-lab and Attendance TA Signature:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Question 1:** | **/3** |
| **Question 2:** | **/2** |
| **Question 3:** | **/2** |
| **Question 4:** | **/8** |
| **Total:** | **/15** |