FINAL PROJECT – UNI SUFFERERS

Introduction to Computer Science (CS-UH 1001) – Fall 2020

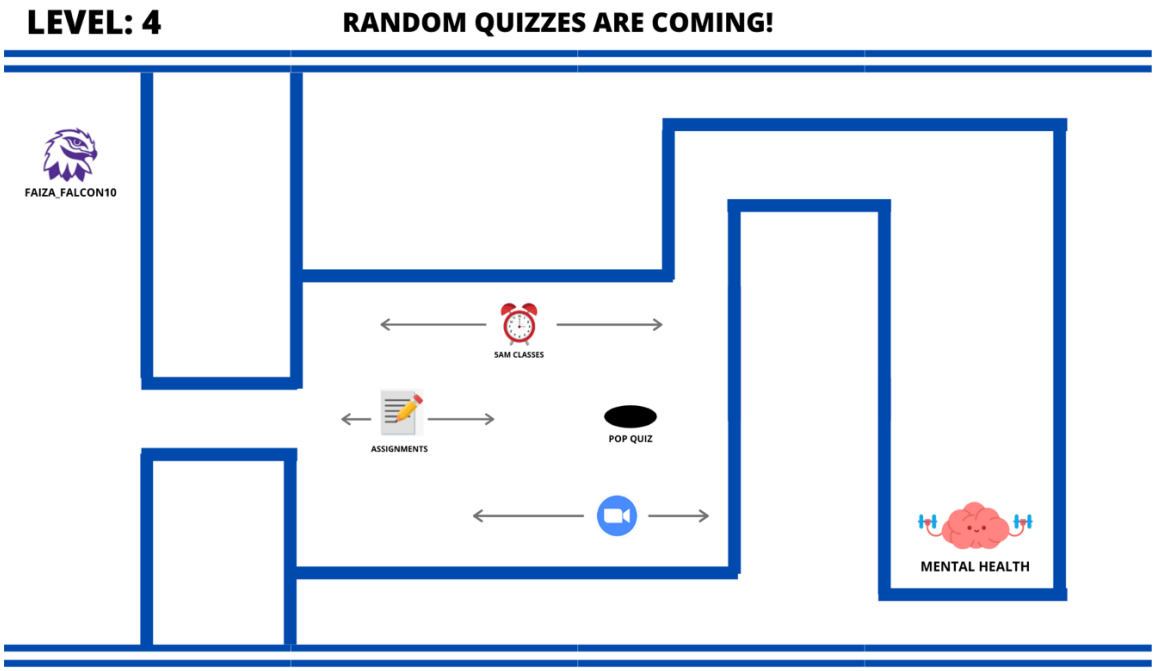
Group Members

Muhammad Abraiz Bin Azhar Khan
Maaz Ahmed

Introduction

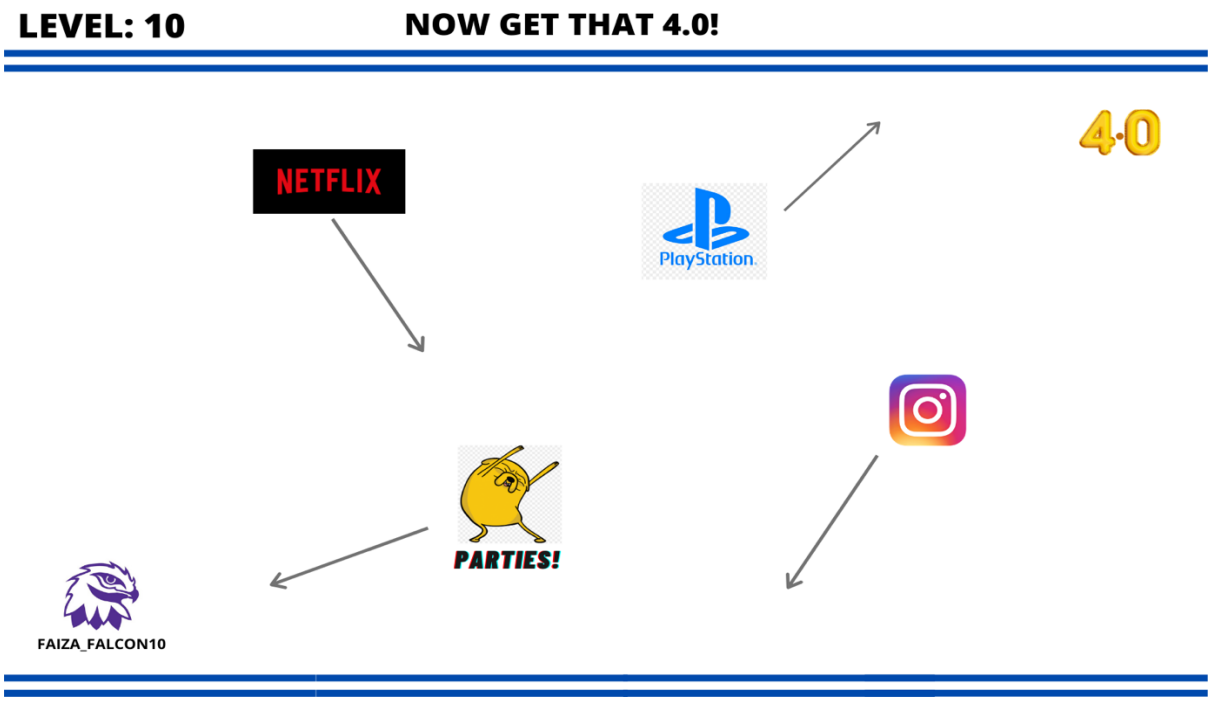
This game is inspired by Hazem Ibrahim's approach of creating a game which is specific to NYUAD and relatable to NYUAD students. Keeping the fun in place, the concept of the game is based on raising awareness regarding the importance of keeping one's mental health in check as university work can get extremely demanding. First-year students, particularly this year, have been overwhelmed by the challenges brought by studying online. This game involves a student (represented by Faiza the Falcon) avoiding multiple obstacles on their way to taking care of their mental health. These obstacles are in fact some of the challenges faced by freshmen this semester, described in detail below. The game involves multiple levels and the difficulty to save their mental health increases as each level is crossed. In the final level, the student comes across a set of distractions and avoids them on their way to a 4.0 GPA. The game is described in detail below.
Note: The game is inspired, to some extent, by a project created by Harvard University on a platform called Scratch. The link is attached below.
https://scratch.mit.edu/projects/326129433/
The sprite represented by the Harvard logo is a student in our implementation of the game, and the obstacles, represented by other universities in Harvard's implementation, are various difficulties faced by freshmen in our implementation of the game.

Game Phase



The screenshot represents how a typical level of the game might look like. This level has multiple obstacles, i.e difficulties faced by freshmen, including 5am classes, zoom fatigue, assignments and random obstacles, such as pop quizzes which might spawn at any random location and time during the game phase. The arrows represent the direction in which the

obstacles are constantly moving. The student, represented by Faiza, is controlled by the user using the arrow keys for moving up, down, left and right. The player avoids all the obstacles on the way in order to save the student's mental health on the other side, as shown. Every time the student collides with an obstacle, the collision counter is incremented by one. The level shown is one of those in the middle, and there will be levels easier and more difficult than this. For instance, some levels ahead might show 'essays' (objects) being shot at the student with a speed, while other levels may show 'anxiety' (object) constantly following the student when the user tries saving the student's mental health (similar to the implementation of the 'Princeton' and 'MIT' sprites in Harvard's implementation of the game). Each time the student reaches the mental health object (represented by a brain in the diagram), the level is incremented by one.



The diagram above now shows a sample of how the last level might look like. This level comes after the first few levels where the player helps the student save his mental health. This level is about avoiding all distractions and getting the 4.0 GPA! The distractions (Netflix, parties etc.) move randomly on the screen and the user helps the student reach the 4.0 GPA by avoiding these distractions. The rules of collision are similar to those of the previous levels. Upon successfully completing this level, the game ends and the player's score is represented as follows:
'x breakdowns and y distractions later, you finally scored the 4.0 GPA. Think you can do better? Click on the screen to try again!'.
In the statement above, x represents the number of times the student collided with obstacles on his way to saving his mental health, whereas y is the number of collisions between the student and the distractions on the way to the 4.0 GPA. The player has the ability to restart the game by clicking on the screen once the game ends.

Division of work

Since this is a level-based game, we plan on addressing it level by level.

- First couple of levels and basic game structure (sprites, maze, movements etc) – both
- Levels 3-6 – Abraiz
- Levels 7-10 – Maaz