## CSE 120 Game 4(a)

Frank Zeng May 2025

#### 1 Game name

Jump

#### 2 Group member

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#### 3 Design Brief

The game is designed to have a similar game feel as the platformer game "Jump King" (2019). Essentially, the game will be a platformer mainly focusing on going up. The player can move left and right using the arrow keys, and can hold the jump key (space) to increase the jump force. The game jumping should be precise and also punishing. That is the player may lose a lot of progress by missing certain jumps. One example is sort of "vertical tunnel", that if the player accidentally fall into, will result in losing a great number of progress, or even getting back to the start.

### 4 Learning objectives

Feature wise, I want to use the bouncing feature in the arcade physics, to build up some punishment said in the previous section.

Programming wise, I want to use JSON files to store all the levels, so that adding and modifying levels can be done more easily out of the program.

Lastly, I want to have a game console that can be used to tweak certain variables in game, and make testing easier. The latter can be accomplished by adding some teleport feature to the console.

# 5 Rubric

| Rubric description   | Number of points | How points are assigned   |
|--|------------------|---|
| The player can hold the jump key to control the magnitude of the jump                | 3                | 3: The player can.  |
| The game has "slopes" on which<br>the player cannot control and<br>will slide along. | 3                | 3: The game has such slope  |
| The game uses JSON file to store the level.  | 3                | 3: The game has doesn't hard-code level and uses JSON file to manage level. |
| The game offers a console to move the player around                                  | 3                | 3: The game has such console.   |
| The game offers a console to tweak the level   | 3                | 3: The game has such console.   |