**12/7: 2:00pm - First Brainstorming**
**Points**
We started at looking at the points rubric to see what would be feasible for a project of this size. We created a list of what we thought would be possible to implement.

Need 55 points
- 15: menus (start, instructions, pause)
- 5: 5 levels
- 3: controls (run left and right, jump, use powerup)
- 2: Score counter
- 9: Bunny (Player)
- 5: Teleportation Hat, like pipes in Super Mario Bros

It was at this point we thought of the idea to have different characters that are interchangeable, with different abilities. You would then go through platforming levels, and need to switch between different characters to utilize their unique abilities to get past the level.

**Main Idea**
There are 4 levels, and 3 different characters. The first level you are a bunny, whose special ability is to jump really high. After finishing the first level, you then unlock the monkey, who can climb up vines. Then you are able to switch between the monkey and the bunny, and you need to complete a level utilizing both of their abilities. Finally, you unlock the turtle, who can swim. The third level focuses on the turtle, and then the final level is utilizing all three abilities in tandem in a larger scale level.

- bunny
  - Move left, right
  - Jump high
- turtle
  - Move left, right
  - Swim
- monkey
  - Move left, right, up
  - Climb

**Workload**
- Menus / UI - Arthur
  - Start/instruction menu
  - Win/lose menu
  - Pause / resume
- Sprites - janna
- Player functionality  - Ben
  - Bunny
  - Turtle

- Monkey
- Level design - everybody
- Level assets functionality - Everybody
  - Static / moving platform - janna
  - Vines - arthur
  - Water - Ben

**Aesthetic Goals:**

Escalation of Challenge
- Definition: Players should feel increasingly challenged as more game elements are introduced.
- Success:
  - Players are able to pick up the game easily
  - Over time, levels get less straightforward and require more thought and effort
  - Players have to restart the level, can't beat it on one playthrough
- Failure:
  - Players are immediately overstimulated and the game is too difficult
  - Players are able to breeze through the entire game
  - The game doesn't get more difficult, and either gets easier or remains the same difficulty for each level

Attachment
- Definition: Players should feel a sense of attachment to their characters, and have a feeling of suspense when traversing through the level
- Success:
  - The sprites used for characters are appealing
  - Players actively avoid killing/hurting their character
  - The overall design of the game is friendly and welcoming
- Failure:
  - The characters used are not relatable whatsoever, such as basic shapes
  - Players don't care if their character is hurt
  - Minimal design goes into the game, resulting in a bland experience

**Core Loop:**

Core Mechanics
- Platforming - Running, jumping, etc
- Switching between different characters with unique abilities to overcome different obstacles

Core Loop
- Avoid obstacles
- Maneuver your character to end of level
- Unlock new character

**12/7 6:00pm - C# Scripts**

Ben - I worked on developing the C# scripts for the three different characters, the monkey, rabbit, and turtle. I also worked on developing the water asset, which only allows the turtle to swim through it. Other animals will respawn when hit by water. This was fairly straightforward, and I didn't find too many bugs other than for some reason the Turtle script works half the time, while the other half it doesn't. Will need to look further into this.

**12/7 1:20AM - Player Sprites + platforms**
Janna - found some [bunny](#) + [monkey](#) + [turtle](#) sprites and added colliders to fit around their shapes. Couldn't find any existing sprite sheet / animations where all three were in the same style though — might try to just draw them if I have time because I think animated sprites would be so cute 🥳Also added platform prefabs for regular platform and moving platform. I did a moving platform for freestyle 2 so it was pretty straightforward to do again, but I did have to spend a bit of time getting it to work for vertical movement too.

**12/8 12:00pm - Fixing Jumping and Level Design**
Ben - Spent way too long trying to fix the jumping for the bunny and monkey characters. Originally I had been using a timer to allow the player to jump at certain intervals, but this doesn't work with a platformer because you'll be jumping to platforms higher than the ones you're currently at, which means the entire timing is off. So learned about Raycasts and used Physics2D.raycast to detect whether or not a player is on the ground.

Then created a rough draft of the first level, which is just using the bunny. It's fairly simple, but I also added an obstacle called "thorns" which hurt the player if they run into them. Then also implemented a final box which could be a cage, with the next player inside of it. Might want to implement a "You unlocked ___" screen too, which I think could be helpful.

**12/8 3:00pm - Added Parallax Backgrounds + Camera Follow**
Added [pixel backgrounds](#) for each level of the game and a script that makes the camera follow player movement. Camera script was pretty simple since I also had it for proj2, but figuring out parallax backgrounds was a lot harder. I wanted the backgrounds to move with the camera / player, so used the difference in camera positions with each update() to calculate how much the backgrounds should move by. Also added a [water](#) texture.

**12/8 4:00pm - Platform Sprites + Ground**
Added [wood platform sprites](#) and [ground sprites](#)! Went into photoshop to tweak some minor things so they would tile better, and so we could have raised ground obstacles. [Music credits](#) [flag credits](#) [spider](#) [apple](#)

Points we have right now:
- Menus - 15
- Bunny - 4
- Monkey - 4
- Turtle - 4
- Platform - 2

- Flag - 2
- Monkey Background - 3 (appears on screen, moves to follow player, makes background noise)
- Bunny background - 1
- Turtle background - 1
- Ground - 1
- Levels - 3
- Thorns - 2
- Vines - 2
- Total: 45

NEED 10
- Noises for each animal's ability - 3
- Noises for each animal getting hit - 3
- Noise for platform and flag - 2
- Coin - 4
- Total: 57