Shelja Sarin's Scratch Project Design Notebook

PLTW | Computer Science

Our Project: The Shapes Game

Team Members: Shelja Sarin and Sahithi Samsani

Kaehms CSE Period 1

Scratch Project Link	The Shapes Game

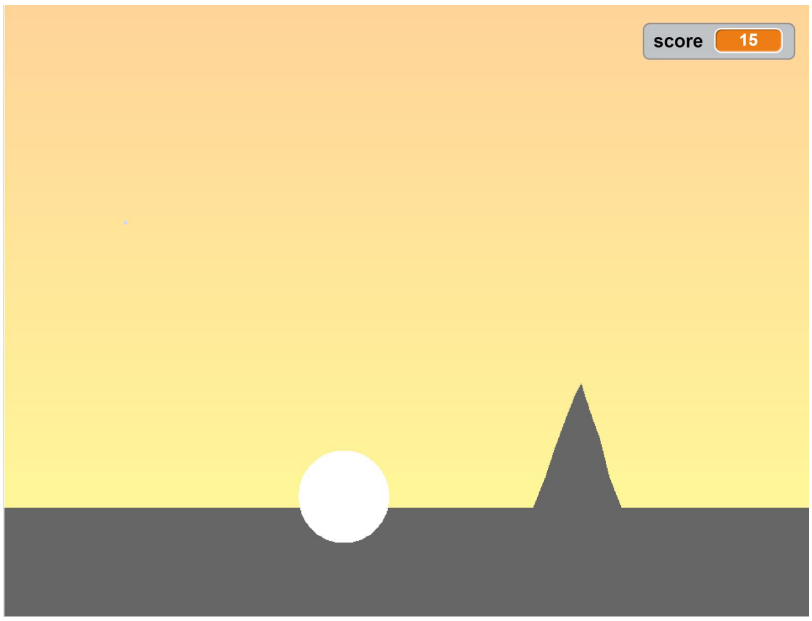


Table of Contents

Daily Log

Day 1- August 30
Brainstormed Ideas together on the project log and chose our top two ideas.
Reflection: It was a good start for the project and we came up with many ideas. We did not have much time to work since we were just introduced to the project

Day 2- August 31
Finalized our idea that we wanted and created a flowchart for the idea. We shared the flowchart with another team and they gave feedback on it. We also gave feedback on another team's flowchart/game idea.
Reflection: Most of the day consisted of just refining the idea and objective of the game.

Day 3- September 1
We started to work on scratch by creating a new project on my account. We both worked on creating the different backgrounds for the game. For this we had to paint each different background. We also created the main sprite, which is the white circle that will jump.
At home: Sahithi finished up the backgrounds and I created other sprites for the start page design.
Reflection: We finished the basic look of the game and we made a lot of progress.

Day 4- September 5
We started to design and program the obstacles. We made gray rectangle obstacles and programmed them to come on the screen but we were unable to make them move as we had hoped.
At home: I set up the code for the score and programmed the score to change by 5 when passing an obstacle. I also change the costume of the obstacles to triangles which were easier to jump over.
Reflection: We got a some progress done but there was a lot of confusion when programming the obstacles.

Day 5- September 6
We added more code to the obstacles and were able to get two obstacles in the game but we were not able to make the obstacles reproduce after they left the screen. Therefore, only two showed up
At home: Sahithi tried other approaches to the coding of the obstacles but it was still glitching.
Reflection: We tried several times to make the obstacles work but it still glitched. However, everything else worked fine.

Day 6- September 7
We were able to fix the glitches in which prevented the obstacles to regenerate once the old one left the screen.
At home:I added comments for the coding. Sahithi made the "game over" screen and changed the code to make the backdrops change at each level and for the speed to increase.

Reflection: We finished the majority of the project and were able to make it function properly.

Our Brainstorming

Ideas:

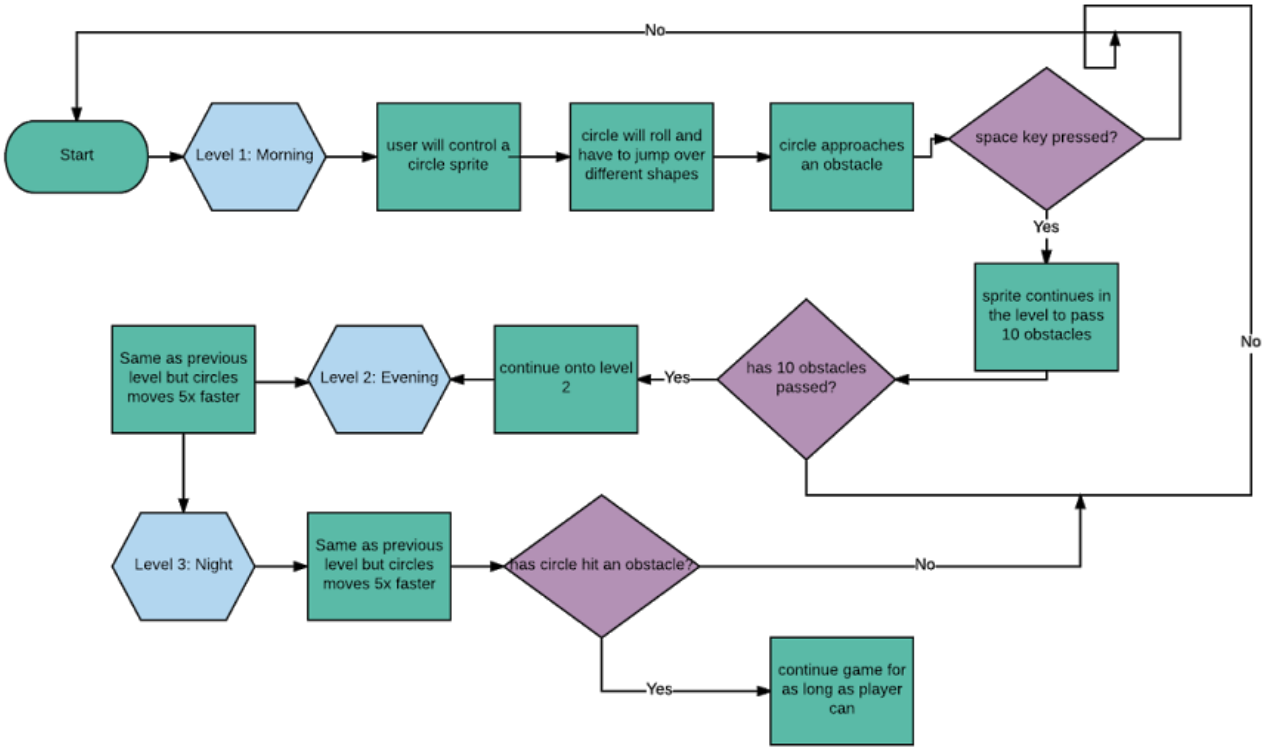
- Jumping game
- Change scene/obstacles when reaching a certain score
- Don't let the balloon pop game
- Jumping up game- w/ sweets as platforms
- Fish swimming game, teaches you about eco-friendly environment
- Racing game, avoid the obstacles
- Jumping game with shapes

Our Final Idea:

Jumping game with shapes

- Sprite jumps onto floating platforms, falling results in death
- Each level is a different part of the day (3 levels)
    - Morning, evening, night
    - Morning:
        - Yellow and orange
    - Evening
        - Orange, pink, purple
    - Night:
        - Purple and black
- Different level = different shape
- Spacebar to jump
- Background moves, sprite stays in place
- First level is regular jumping

Flowchart:



Group Feedback:

- Change level of difficulty for each level
    - The first level is something easy (like normal jumping)
    - The second level could have other obstacles
    - The other levels could be faster than the the first level
- Instead of floating platforms that move horizontally, make the sprite jump over obstacles on the ground

Feedback and Instructions

Instructions:
1. Press “a” key to start
2. Use the “space” key to jump over obstacles
3. Each level has a different background and gets faster: Level 1-Morning Level 2-Evening Level 3-Night
4. Objective is to try to beat your highest score and get as far as you can

Pro: Features Liked	Con: Aspects that were confusing, buggy, or etc.
I liked the objective of the game.	The triangles kept on moving after I touched it.
I liked the backgrounds and the simplicity of the game.	I think I lost but it just brought me back to the start page and continued going at a faster pace.
I like the design and simplicity	It glitches when it changes background, it’s repetitive
Nice background change	When you lose, everything else continues
Nice background change	Whenever you restart it gets buggy
It’s a nice, repetitive concept that’s very replayable.	It could use more progression or faster difficulty ramping.
I like the game concept. The speed and timing is good.	The ball doesn’t move. The obstacle continues running even when you lost and shows up on opening screen.
The game was engaging to the players.	The objective of the game was not clear in the instructions.
The game concept was easy to understand and follow, and the backgrounds were very cute.	The background glitches sometimes- it switches a little quickly and the obstacles continue to run when the circles hit the triangles.

Conclusion

1. Reflect on the creative process you used. What was useful? Discuss your reflection with your partner and then write a reflection individually.

I think that the flowchart and the group feedback was helpful. With the flowchart we were able plan out each step and command in the game before starting to code. This also helped us structure our code better. The feedback was also useful since it gave us different perspectives and helped us improve the game to make it more fun.

2. Reflect on the team dynamic. What helped the team work well together? Discuss your reflection with your partner and then write a reflection individually.

Our team dynamic was thought out very well. We each had our own responsibilities for homework that were communicated at the end of each day. We also worked on one computer for scratch and one computer for the notebook. We switched of everyday on who would be inputting the code in the game but we still worked together on developing it. We worked together on fixing bugs and improving our game very well.