Final project for CS 120, altered Flappy Bird game.

I wanted to make a game similar to Flappy Bird, but with some different animations. I used a panda on a jet pack instead of a flappy bird since pandas don't have flappy wings. For my obstacles, I decided to change them to bamboo to resemble a panda's habitat. Additionally, the rainforest in the back resembles a panda's home. I also added a score board that goes up by 100 every time the panda passes through the bamboo. Lastly, there is an instruction page that allows you to hit play or quit to start the game. When the panda hits the bamboo, the game restarts and score board resets as well.

Instructions: Hit "Play" on the start page to play the game, or "Quit" to end the game. Use the space key to move the panda through the bamboo. Once your panda has hit the bamboo, the game will start over.

I used the code from previous projects to add the instruction page and score board. I used images on google to find my new graphics and adobe to cut out the background.

Bamboo Citation: https://www.vecteezy.com/vector-art/26702466-one-bamboo-branch-stick-plant-vector-illustration-with-outline-isolated-on-square-white-background-simple-flat-cartoon-drawing-with-outlined-art-style

Forest Background Citation: https://www.vecteezy.com/vector-art/6635334-illustration-of-bamboo-forest-at-night-landscape

Panda Citation: https://society6.com/product/kawaii-cute-panda-flying\_stretched-canvas

Jet Pack Citation: https://www.istockphoto.com/vector/flying-rockets-jetpack-device-flat-style-design-gradient-vercion-vector-gm1142196095-306312775

During this project, I learned how to use simpleGE, how to edit images, and how to add an instruction page. I had to edit the panda to be using a jet pack and change the barriers to bamboo sticks, which I used picsart and adobe for. I originally struggled with the bamboo stick because it wasn't cropped enough to allow the panda through. I was ultimately able to fix that. I also struggled with getting my instruction page to display but was able to fix that as well. I would like to be able to get my play button to work, which is what I'm stuck on, and think would majorly improve my project. Next time, I would learn more about buttons, so that my project runs more smoothly. I had a lot of small changes to my game document because I did end up adding a timer, the panda doesn't move down, I decided to add a forest background instead of just a color, and there's no stop button at the bottom of the game. I stayed on track by keeping my graphics how I originally wanted them and making the game similar to Flappy Bird.

Pseudocode

Game States

**game**

background of rainforest shows

barriers set on top and bottom with gap

game resets when panda hits barrier

timer on 10 seconds

random position of barrier that resets

when panda collides with barrier, reset, if not, add 100 points to score

game ends when timer stops

**game over**

score resets to 0

score is in the corner

quit button is hidden

play button is hidden

Sprites

**panda**

user controlled character

moves up with space

slides down screen so space bar is needed to go up

when panda hits barrier, game resets

barrier

computer controlled element

moves forward at medium speed

positioned randomly

2 bamboo on screen at time

when hit by panda, barriers reset

UI Components

**background**

bamboo forest

blends in well and matches the theme of the sprites

**title**

basic instructions on page

play to start game

quit to quit game

**lbltimer**

timer set to 10 seconds

set on the corner of screen

will reset when gets to 0

**lblscore**

label shows current score

adds points for each barrier passed

collision causes score to reset to 0

**quit button**

appears in the beginning of the game

when clicked, game stops

hides during gameplay

**play button**

appears in the beginning of the game

when clicked, game starts,

hides during gameplay

Milestones

1. got basic flappy bird running, which was a green barrier and black background
2. edited panda with get pack and went into adobe to erase background
3. added panda sprite and space controls
4. edited bamboo on adobe to have no background and made it slimmer for panda to fit through
5. replaced green barrier with bamboo
6. changed black background to photo of a bamboo forest
7. added collision and reset when panda hits bamboo
8. added a score that increases by 100 with lblScore
9. added a countdown of 10 with lblTime
10. added the instruction page
11. added a play button
12. added a quit button

parameters

speed of panda

speed of barriers

location of barriers (up and down) – random

number of barriers (1 or 2)

stretch goals

add sound effects

have a more complex instruction page

add a pause button

erase timer

A notebook with writing on it

Description automatically generated