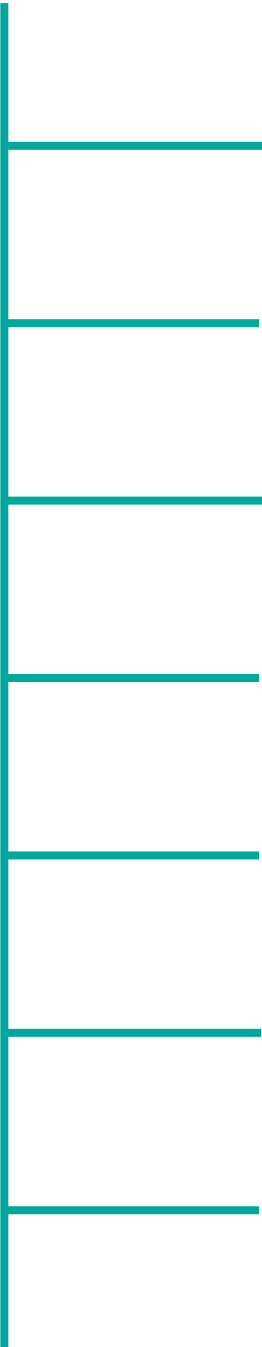


</i>tk

ASHWINI'S PORTFOLIO

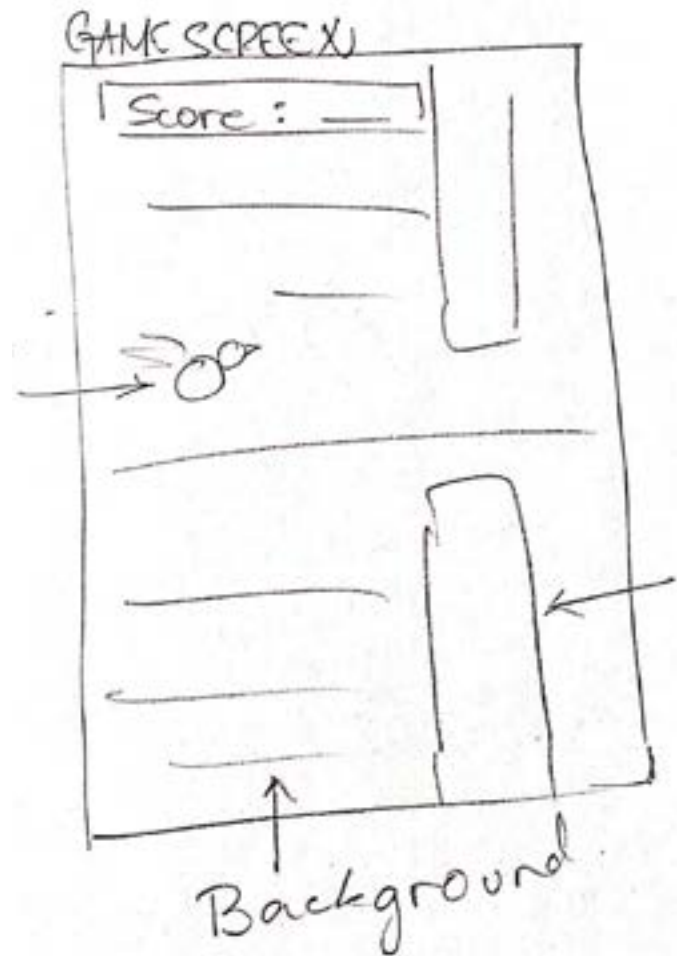


INDEX

- 
- 1. Flappy Bird App**
 - 2. Building a Maze Project**
 - 3. Redraw Images**
 - 4. Kaleidoscope App**
 - 5. Atari Breakout**
 - 6. Trivia Time App**
 - 7. Happy 52 App**

FLAPPY BIRD GAME APP

WIREFRAMES (PLANNING THE GAME) :



ELEMENTS OF BOTH SCREENS :

INTRO SCREEN:

- 1) Title
- 2) Button/s
- 3) Background

GAME SCREEN:

- 1) Score
- 2) Obstacles
- 3) Character
- 4) Background

INTRO SCREEN :

WHAT DID I DESIGN?

You can change the color and size of the title, the text in the button and the button.

The background can also be selected from a bunch of different options.

WHAT DID I CODE?

The only thing that needs to be coded on this screen is the play button.



- Code blocks for Intro Screen.

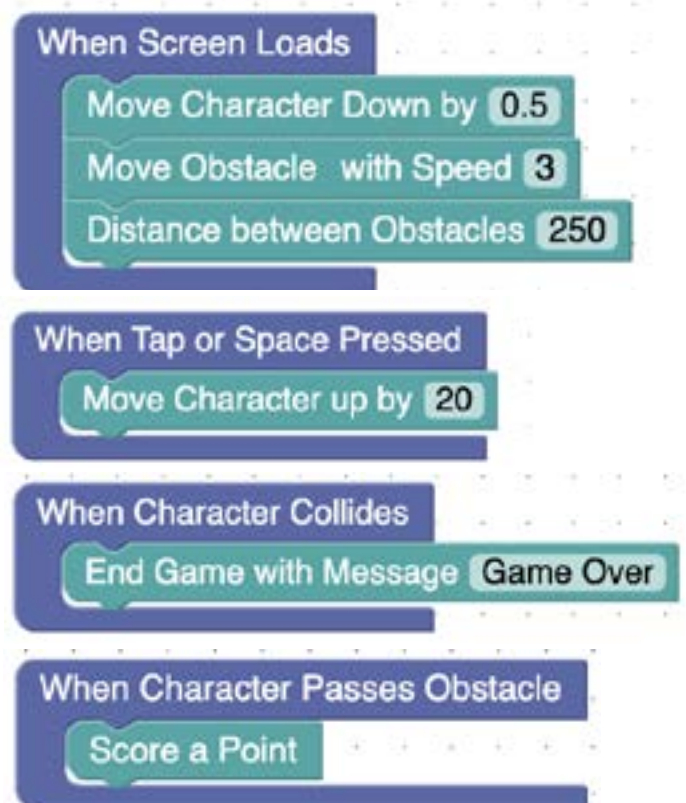
GAME SCREEN :

WHAT DID I DESIGN?

You can add any obstacles, characters and backgrounds from the lists available.

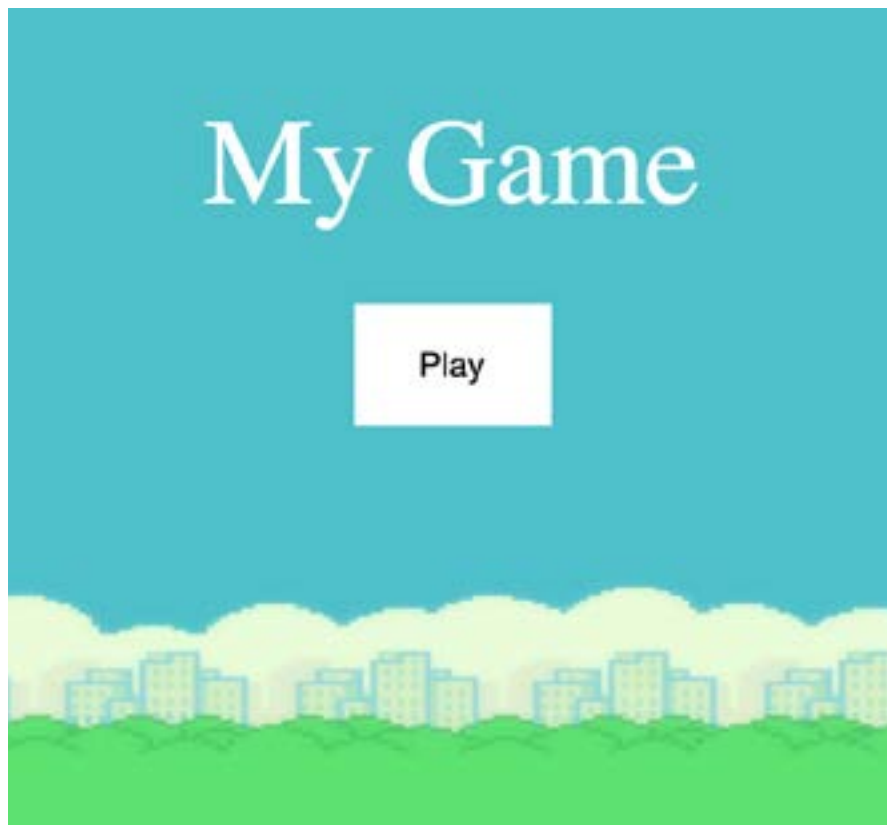
WHAT DID I CODE?

The character needs to be coded to be moving downwards at a certain speed. The obstacle needs to be coded to be moving towards the character at a certain speed. The last thing that needs to be coded is the the scoring system. Every time the character moves through the obstacles the without colliding, the score needs to increase by a point.



- Code blocks for Game Screen.

INTRO SCREEN

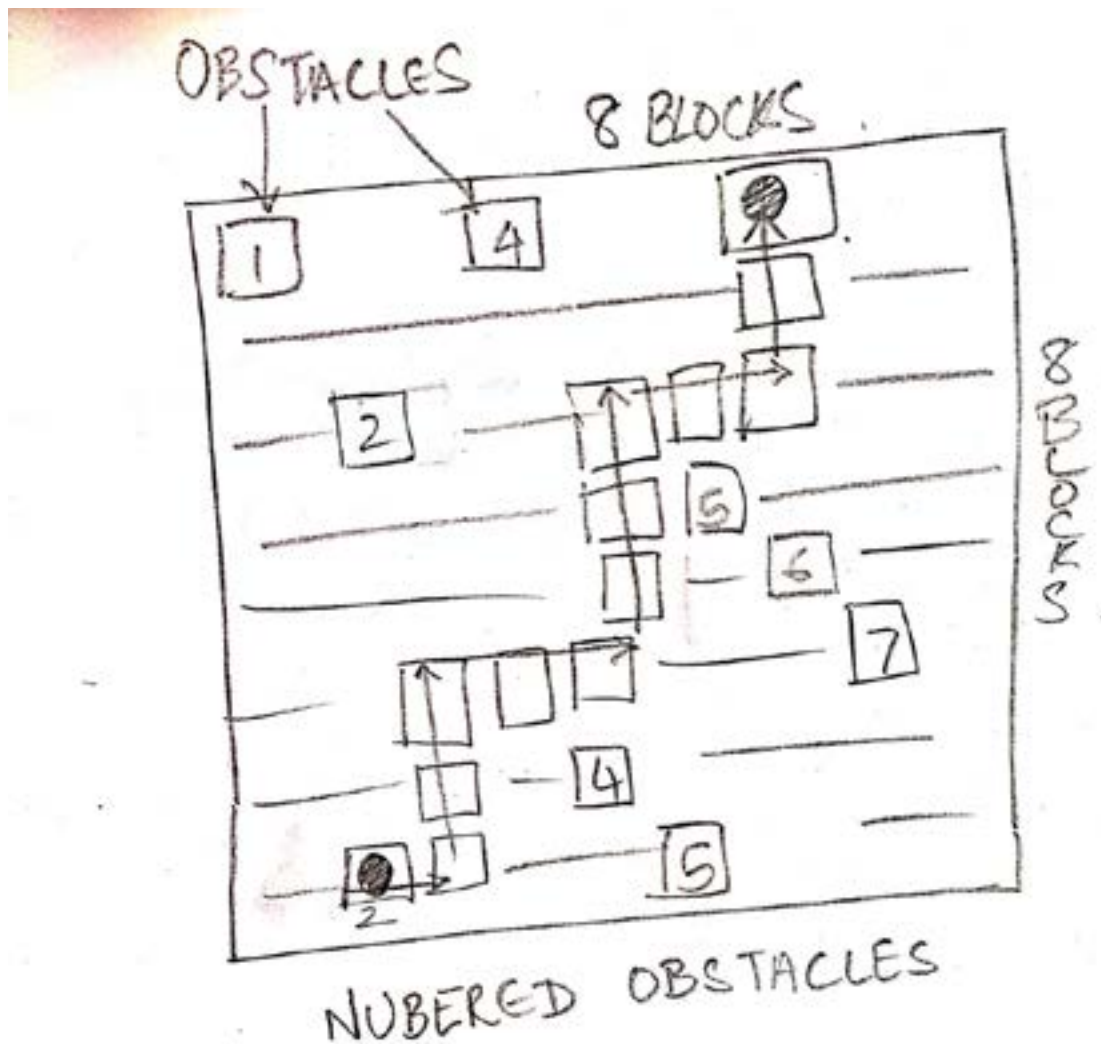


GAME SCREEN



BUILDING A MAZE PROJECT

WIREFRAMES (PLANNING THE MAZE):



ELEMENTS OF THE MAZE :

- 1) Character 1 - Bird
- 2) Character 2 - Pig
- 3) Background
- 4) Obstacles
- 5) Cells
- 6) Path

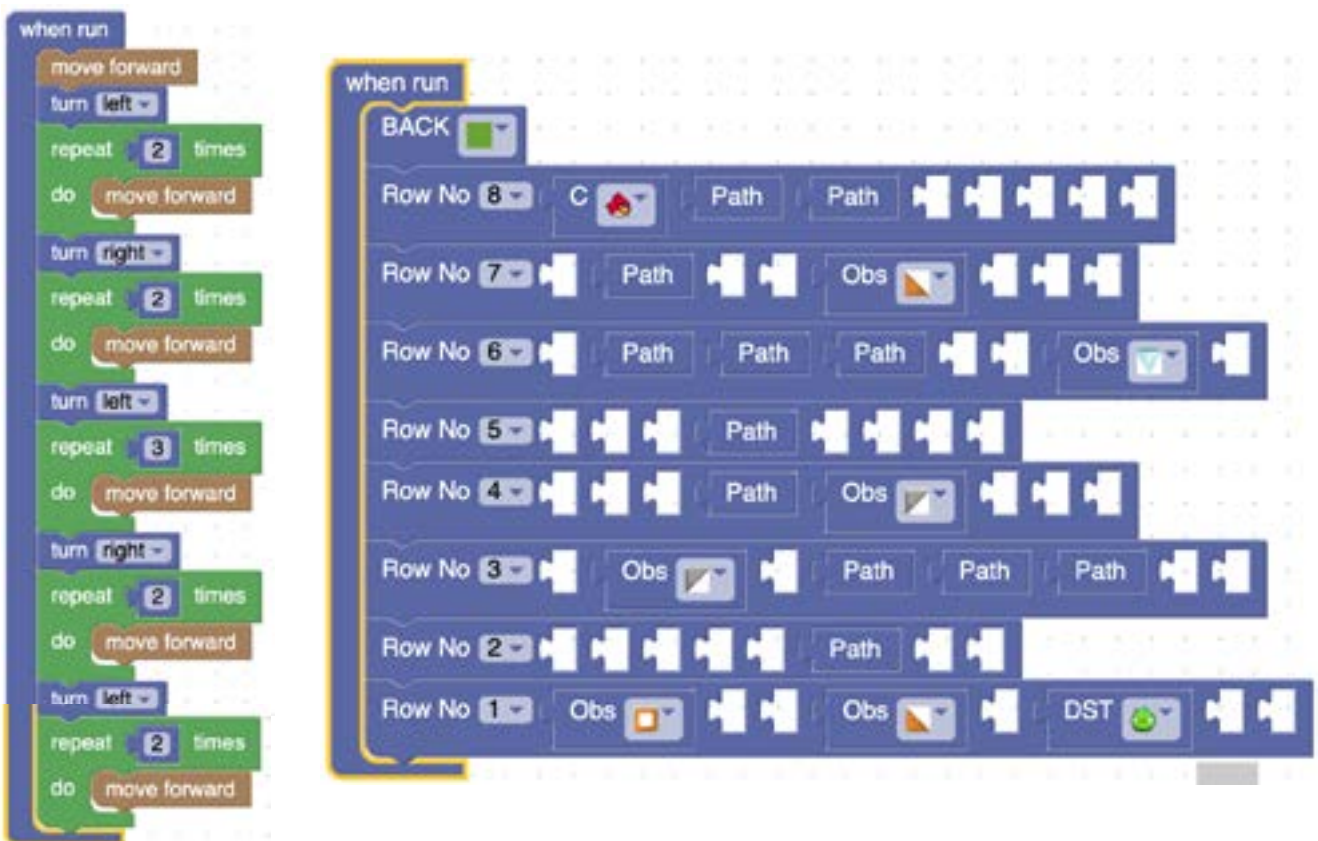
WORKING OF THE MAZE :

WHAT DID I DESIGN?

The characters, obstacles and background can be selected from a bunch of different options.

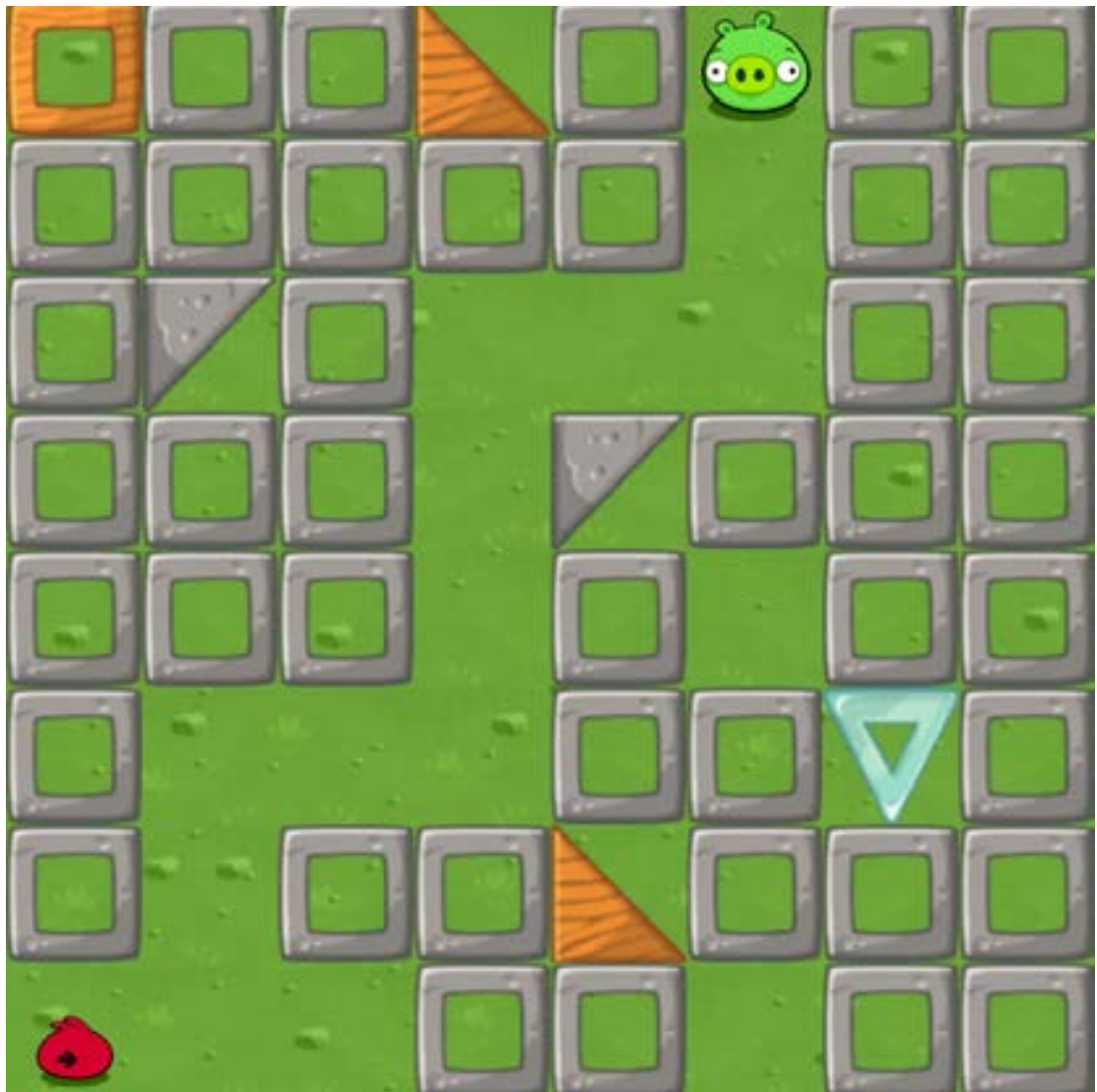
WHAT DID I CODE?

I had to code the absence of cells in order to have a path for the character 1 to reach the character 2. I had to code where the original positions of the characters and which cells would be obstacles for the character 1. Finally I had to code the actual movement of the character.



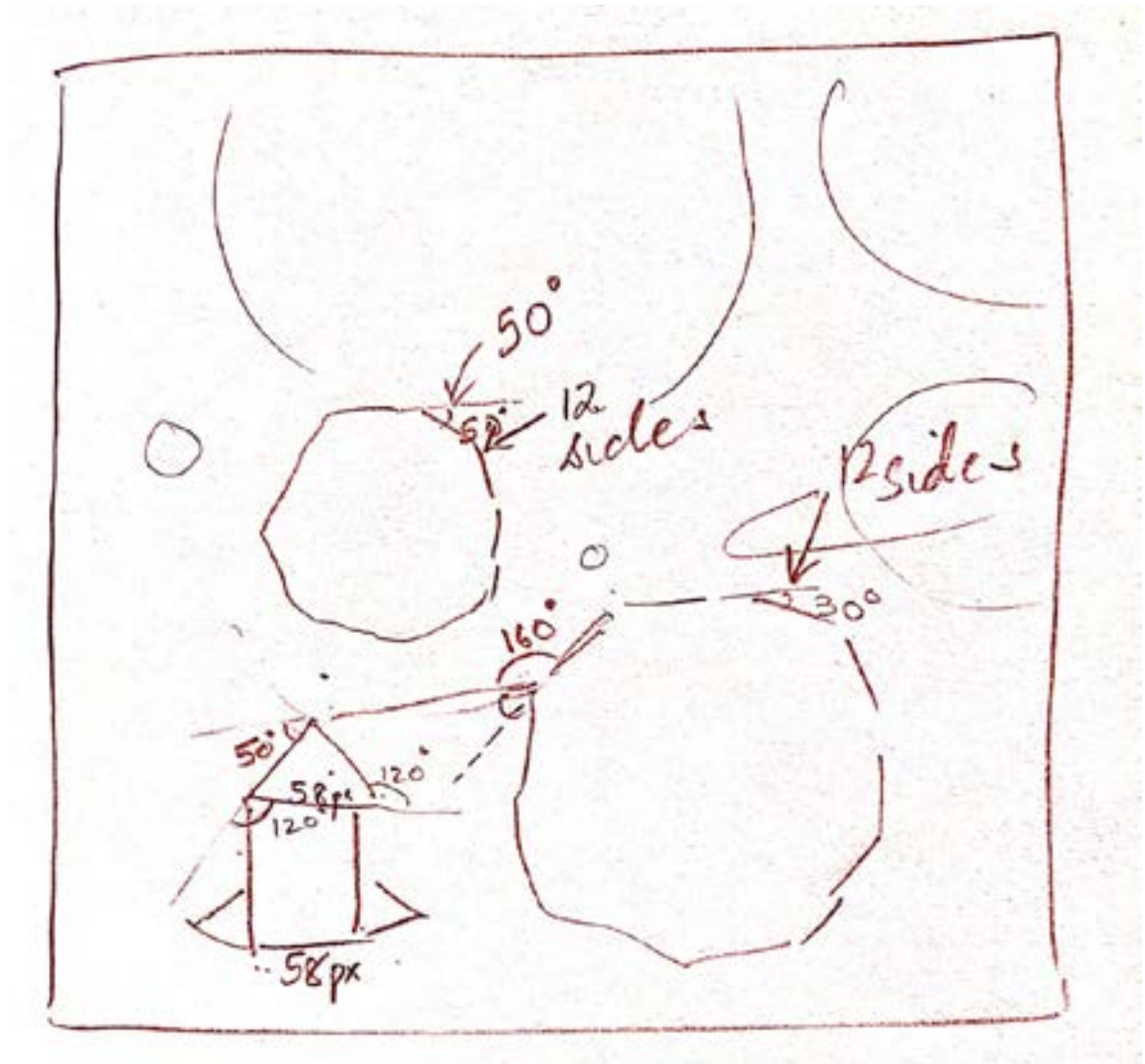
- Code blocks for creating the maze.

FINAL MAZE CREATED



REDRAW IMAGES PROJECT

WIREFRAMES (PLANNING THE DRAWING) :



ELEMENTS OF THE DRAWING :

- 1) 2 Polygons
- 2) 3 Triangles
- 3) A Rectangle
- 4) Angles
- 5) Character
- 6) Background

DRAWING THE IMAGE :

WHAT DID I DESIGN?

The background that I want to draw on can be selected.

WHAT DID I CODE?

I had to code the character to move forward as a line gets drawn according to the number of pixels that were defined by me or jump forward to skip certain lines from being drawn. I also coded the angles at which I needed the character to turn.

The image shows three separate blocks of Scratch code, each starting with a 'When Run' trigger. The first block on the left contains a 'Select Art Design' block, followed by a 'repeat 12 times' loop with 'move forward by 33 pixels' and 'turn right by 30° degrees' inside. Below the loop are 'turn right by 50° degrees', 'jump forward by 175 pixels', and 'turn left by 80° degrees'. The second block on the left is a 'When Run' block with a 'repeat 12 times' loop containing 'move forward by 43 pixels' and 'turn right by 30° degrees'. The third block on the right is a 'When Run' block with a sequence of: 'turn left by 160° degrees', 'jump forward by 102 pixels', 'turn left by 50° degrees', 'move forward by 58 pixels', a 'repeat 2 times' loop with 'turn left by 120° degrees' and 'move forward by 58 pixels', 'turn left by 120° degrees', 'jump forward by 58 pixels', 'turn left by 30° degrees', 'move forward by 69 pixels', 'turn left by 90° degrees', 'move forward by 58 pixels', 'turn left by 90° degrees', 'move forward by 69 pixels', and finally 'turn left by 180° degrees'.

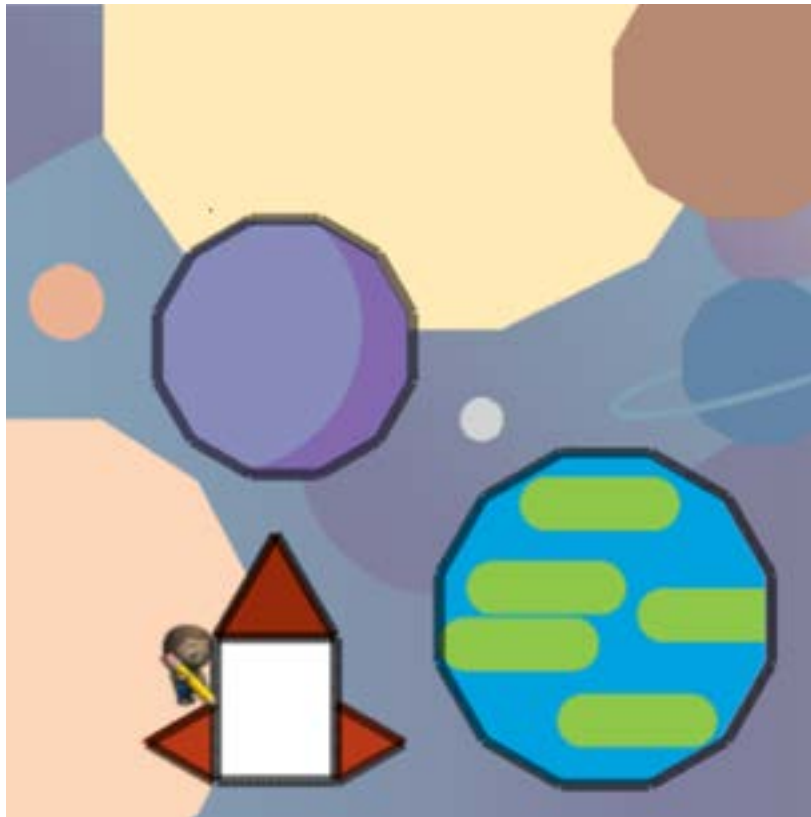
```
When Run
  Select Art Design
  repeat 12 times
    do
      move forward by 33 pixels
      turn right by 30° degrees
  turn right by 50° degrees
  jump forward by 175 pixels
  turn left by 80° degrees
  repeat 12 times
    do
      move forward by 43 pixels
      turn right by 30° degrees

When Run
  jump forward by 32 pixels
  turn left by 60° degrees
  move forward by 38 pixels
  turn right by 120° degrees
  move forward by 38 pixels
  turn right by 30° degrees
  jump forward by 58 pixels
  turn right by 30° degrees
  move forward by 38 pixels
  turn right by 120° degrees
  move forward by 38 pixels

When Run
  turn left by 160° degrees
  jump forward by 102 pixels
  turn left by 50° degrees
  move forward by 58 pixels
  repeat 2 times
    do
      turn left by 120° degrees
      move forward by 58 pixels
  turn left by 120° degrees
  jump forward by 58 pixels
  turn left by 30° degrees
  move forward by 69 pixels
  turn left by 90° degrees
  move forward by 58 pixels
  turn left by 90° degrees
  move forward by 69 pixels
  turn left by 180° degrees
```

- Code blocks for drawing the image.

FINAL DRAWING

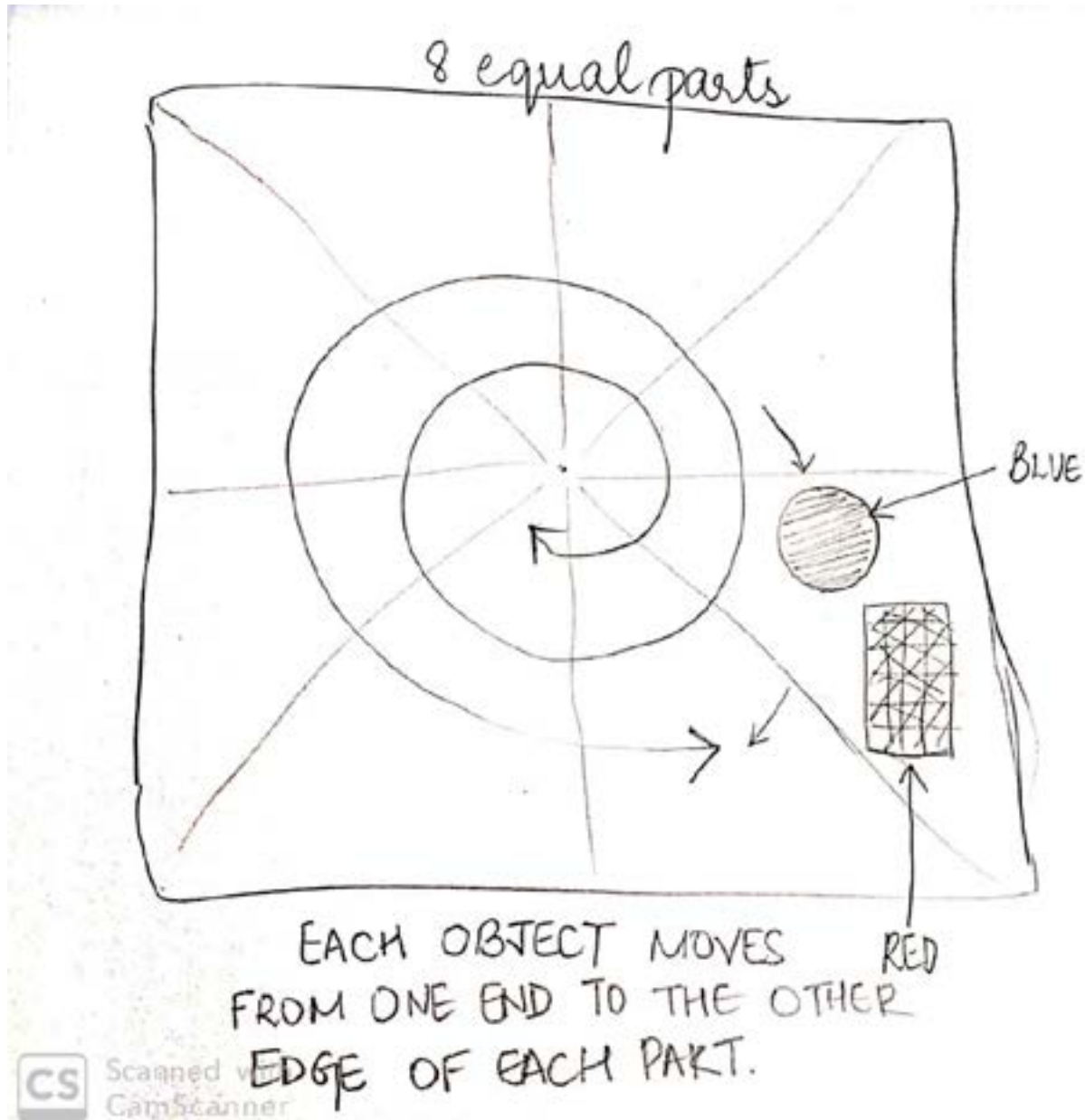


- Once these three objects have been traced, the entire image becomes clear.



KALEIDOSCOPE APP

WIREFRAMES (PLANNING THE APP) :



ELEMENTS OF THE GAME :

- 1) Circle
- 2) Rectangle
- 3) Background
- 4) Slices

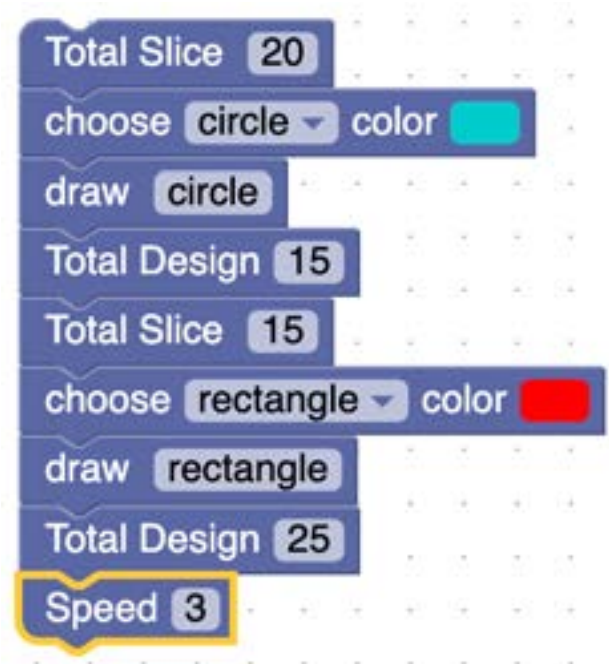
MAKING THE APP :

WHAT DID I DESIGN?

I added the shapes and chose the color of these shapes.

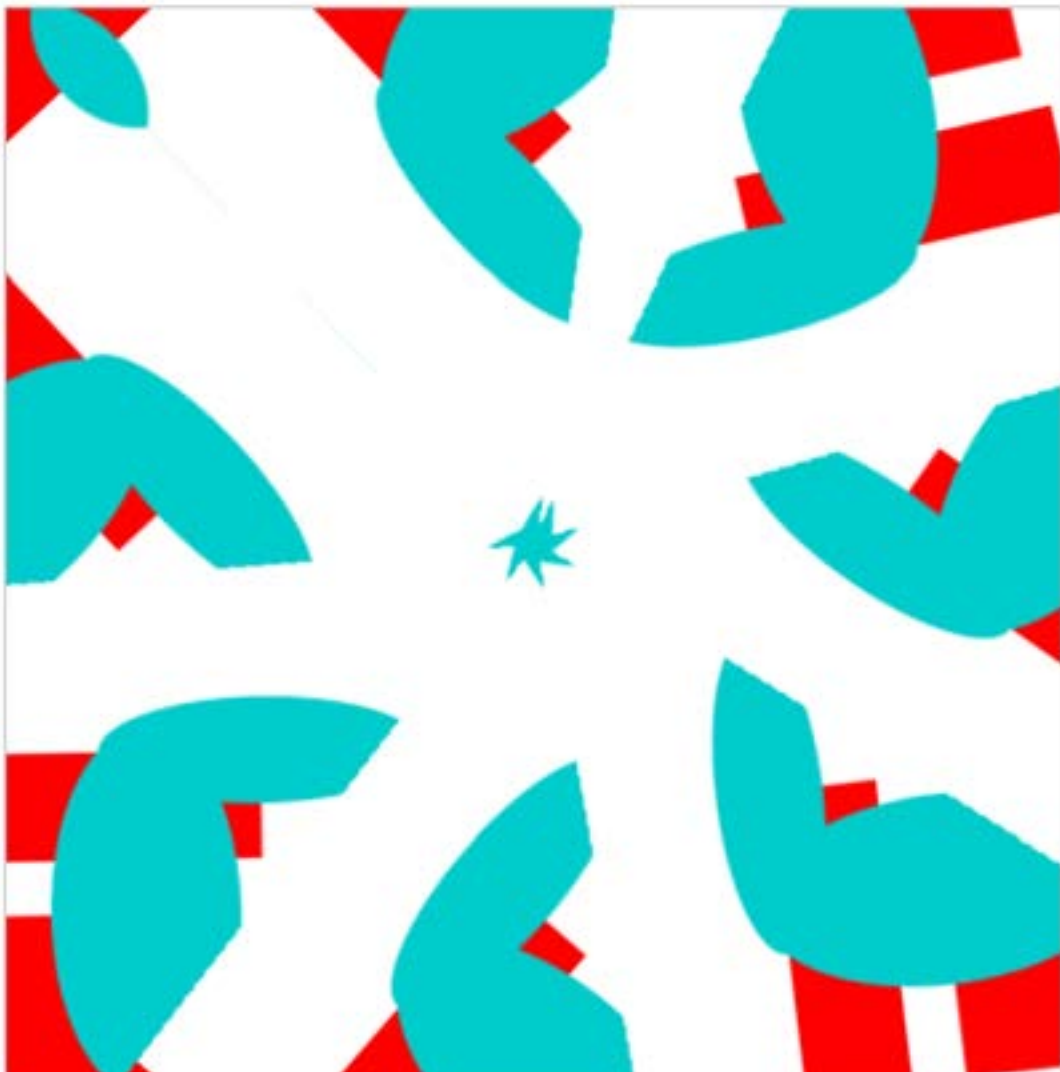
WHAT DID I CODE?

I had to code addition of the shapes. I also had to code the slices in the background and the movement of the shapes inwards and outwards.



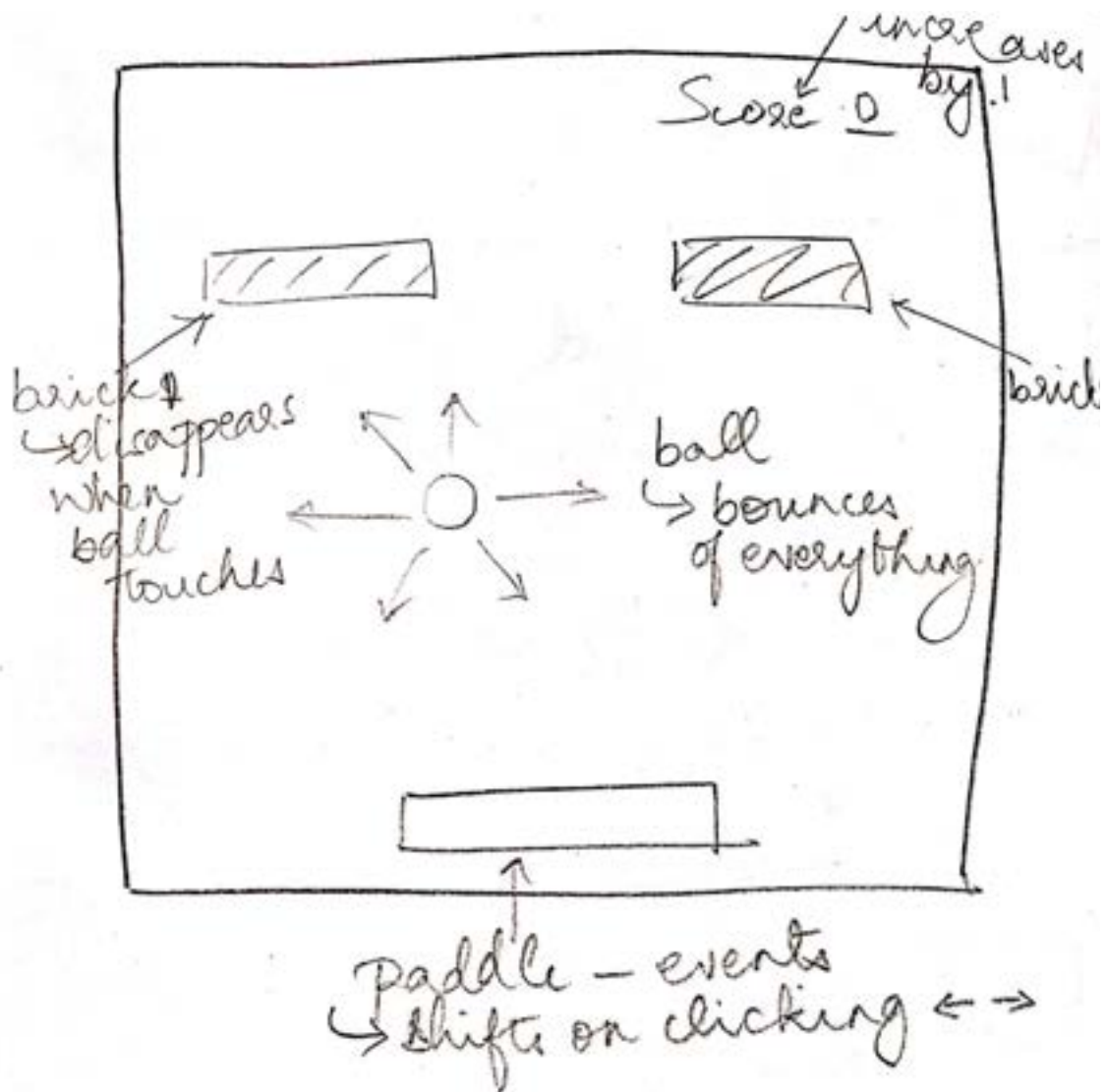
- Code blocks for creating the app.

THE FINAL APP



ATARI BREAKOUT APP

WIREFRAMES (PLANNING THE GAME) :



ELEMENTS OF THE GAME :

- 1) Ball
- 2) Paddle
- 3) Background
- 4) Bricks
- 5) Score label
- 6) Score count

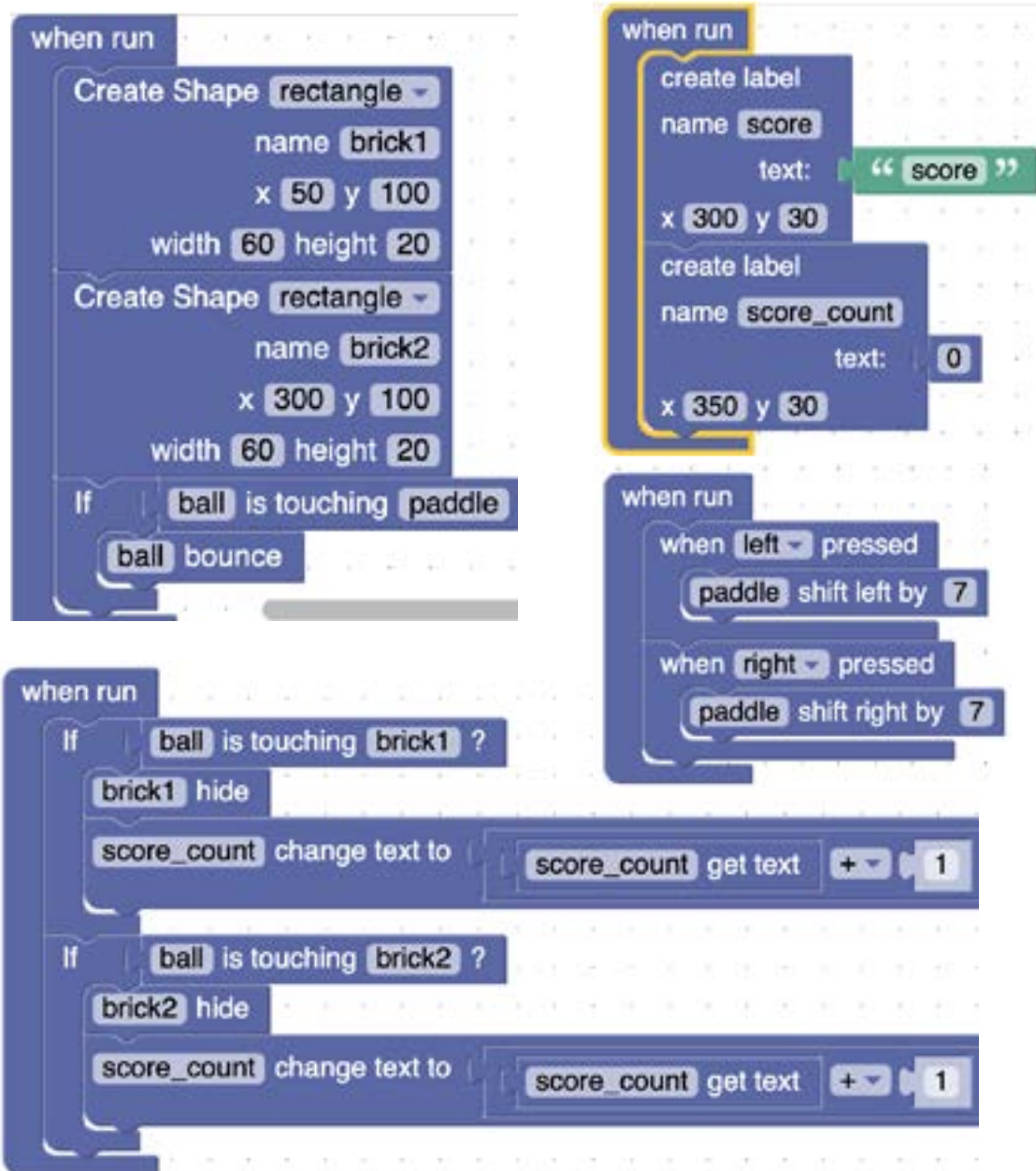
WORKING OF THE GAME :

WHAT DID I DESIGN?

The color of bricks, the background, ball and paddle can be changed.

WHAT DID I CODE?

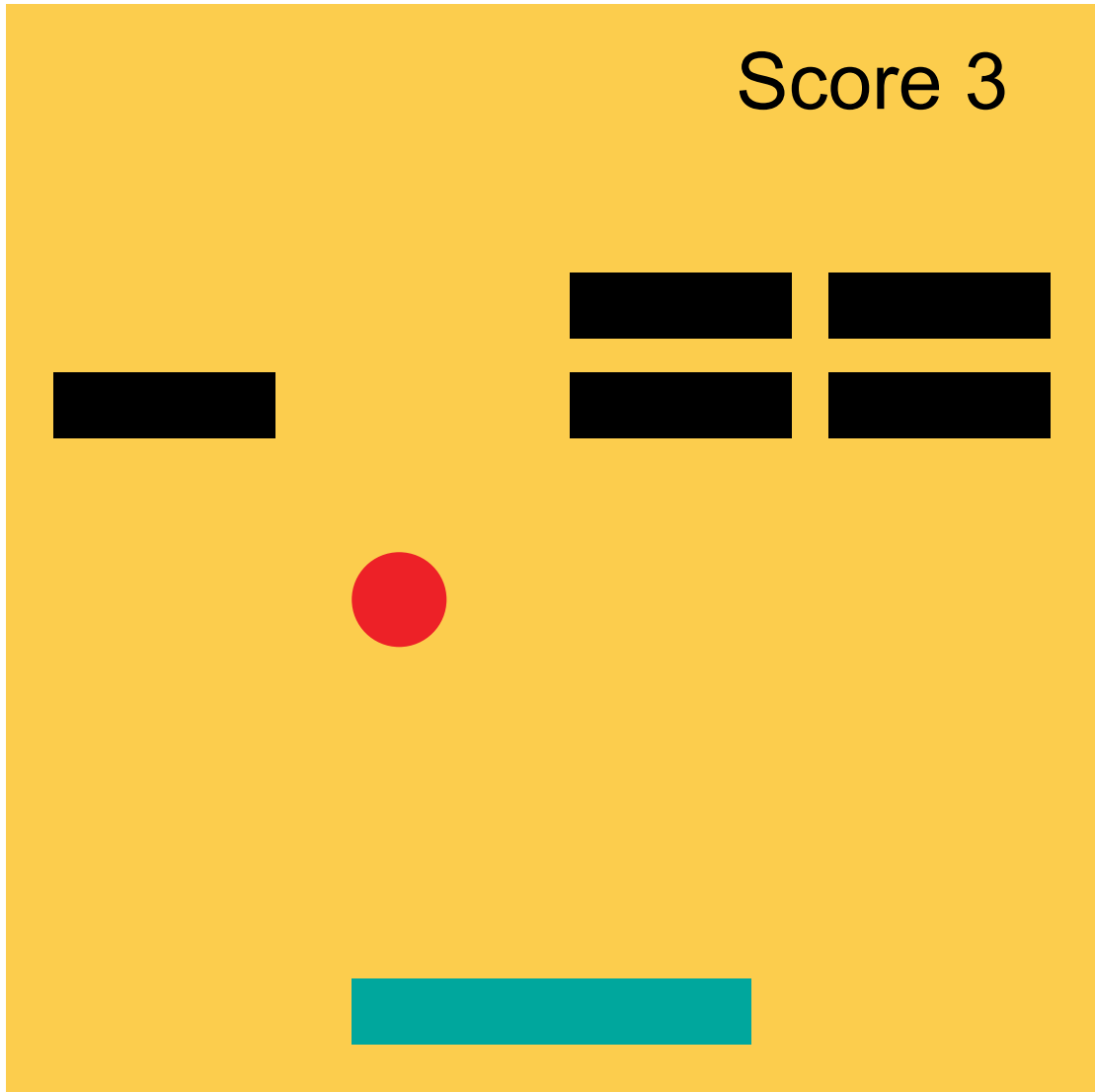
I had to code the movement of the paddle on the click of buttons, the movement of the ball and its bounce if it touches anything, the score count to increase by one everytime the ball touches a brick and the brick to disappear everytime the ball touches them.



- Code blocks for creating the game.

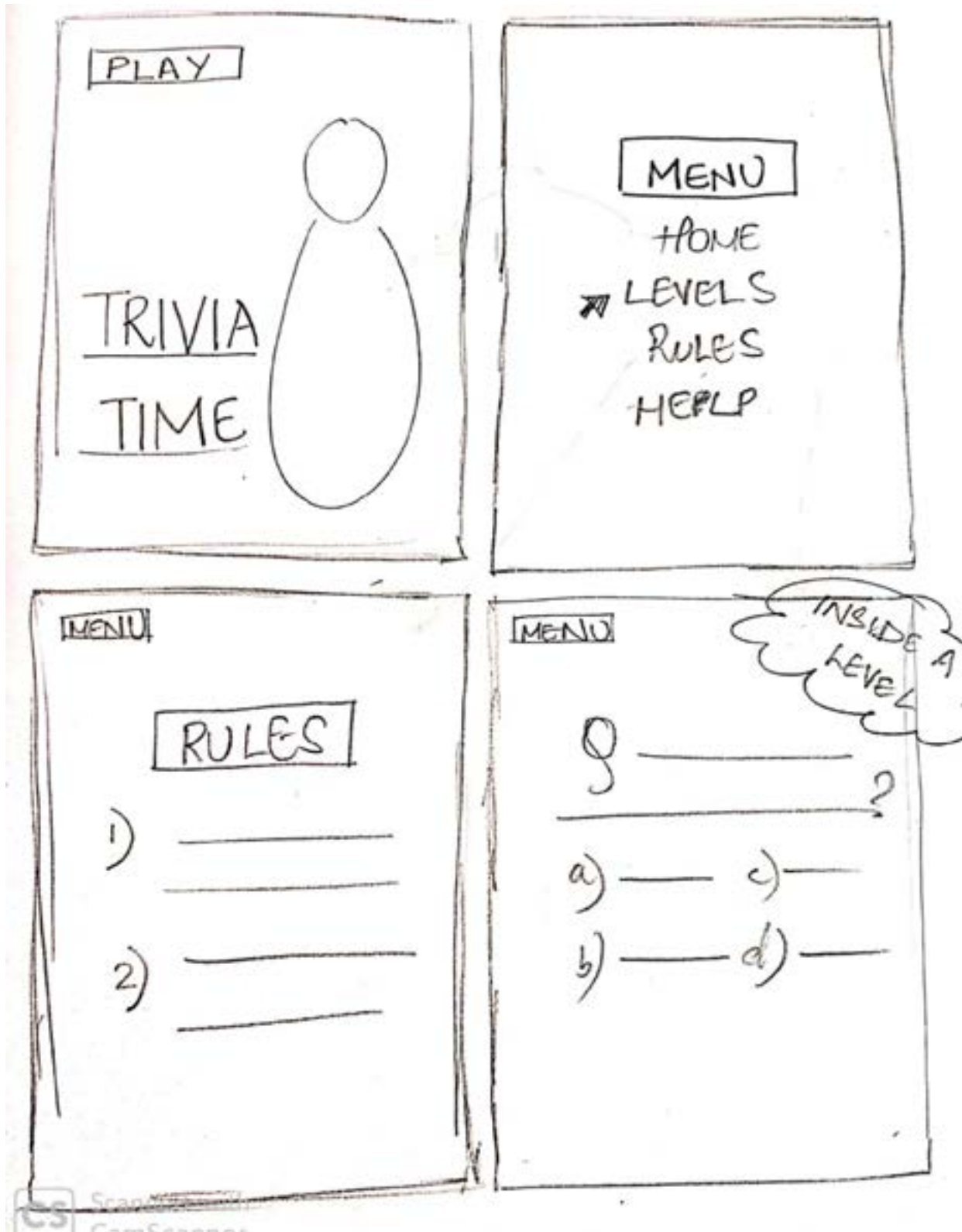
FINAL GAME CREATED

Score 3



TRIVIA TIME APP

WIREFRAMES (PLANNING THE APP):



ELEMENTS OF ALL SCREENS :

HOME PAGE:

- 1) Title
- 2) Button/s
- 3) Background

MENU PAGE:

- 1) Menu Title
- 2) Home Button
- 3) Levels Button
- 4) Rules Button
- 5) Help Button

LEVELS PAGE:

- 1) Levels Title
- 2) Number of buttons based on the number of levels.
- 3) Menu Button

EACH LEVEL PAGE:

- 1) Question text.
- 2) 4 answer buttons
- 3) Menu Button

RULES PAGE:

- 1) Rules Title
- 2) Rule 1 text
- 3) Rule 2 text

HELP PAGE:

- 1) Question 1 text
- 2) Answer 1 text
- 3) Question 2 text
- 4) Answer 2 text

MAKING THE APP :

WHAT DID I DESIGN?

The background that I want to write on can be selected. The color and size of all text and buttons can be modified. I also wrote the content of the entire app such that it is user friendly.

WHAT DID I CODE?

I had to code all the buttons to either connect to another page or to complete a level. I also understood and used the concept of functions and events.

```

setScreen(▼"home");
setProperty(▼"home", ▼"background-color", ▼"white");
setSize(▼"id", 300, 300);
playSound(▼"sound://category_background/synthesize.mp3", ▼false); :-|
onEvent(▼"button1", ▼"click", function(event) {
    setScreen(▼"menu");
});
onEvent(▼"button3", ▼"click", function(event) {
    setScreen(▼"home");
});
onEvent(▼"button4", ▼"click", function(event) {
    setScreen(▼"levels");
});
onEvent(▼"button2", ▼"click", function(event) {
    setScreen(▼"menu");
});
onEvent(▼"button12", ▼"click", function(event) {

```

```

    setScreen(▼"levellwrong");
});
onEvent(▼"button17", ▼"click", function(event) {
    setScreen(▼"levellwrong");
});
onEvent(▼"button15", ▼"click", function(event) {
    setScreen(▼"levellcorrect");
});
onEvent(▼"button25", ▼"click", function(event) {
    setScreen(▼"menu");
});
onEvent(▼"button26", ▼"click", function(event) {
    setScreen(▼"menu");
});

```

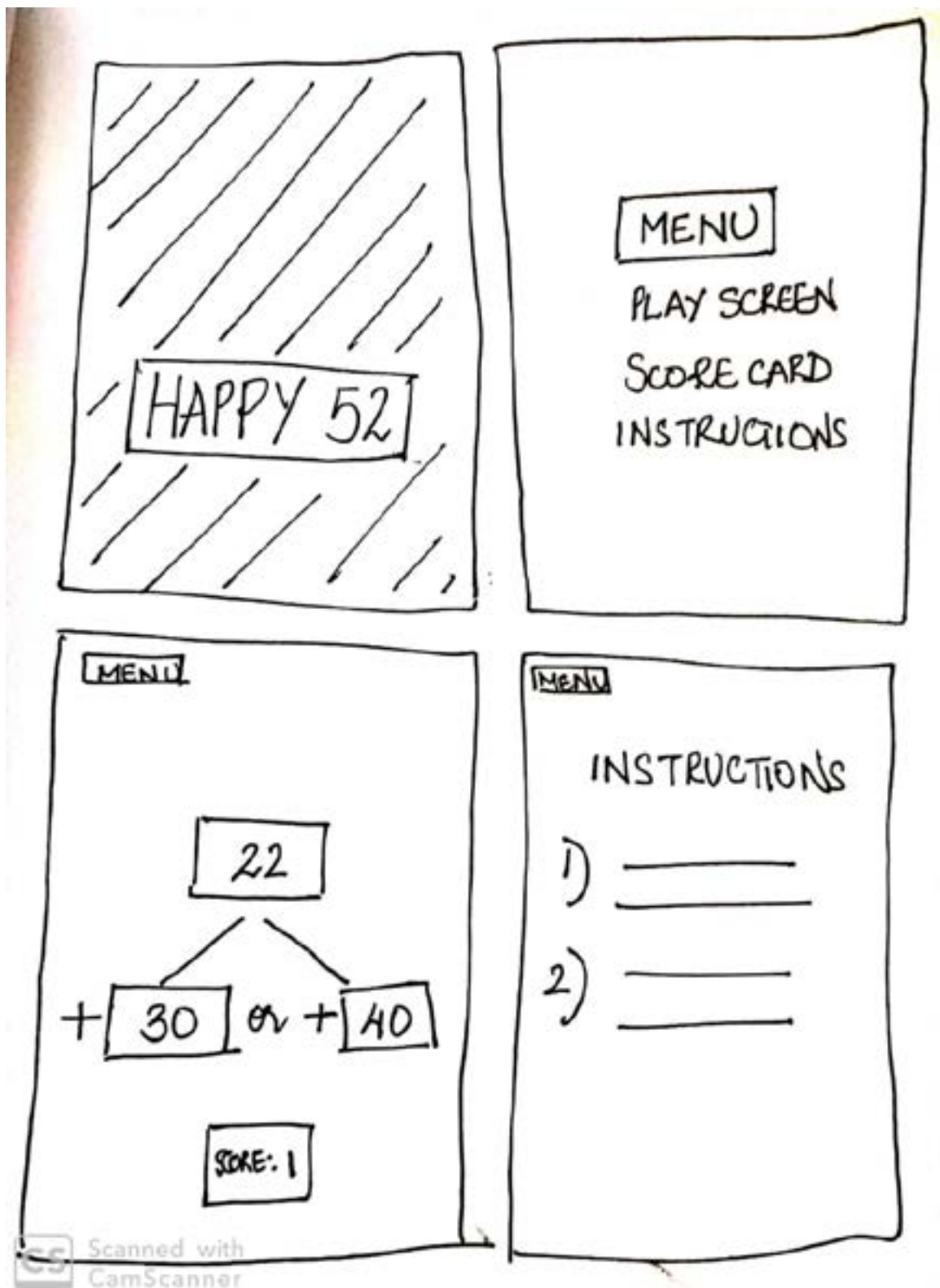
- Code blocks used while creating the App.

FINAL LOOK OF THE APP



HAPPY 52 APP

WIREFRAMES (PLANNING THE APP) :



ELEMENTS OF ALL SCREENS :

HOME PAGE:

- 1) Title
- 2) Button/s
- 3) Background

MENU PAGE:

- 1) Menu Title
- 2) Home Button
- 3) Play Button
- 4) Instructions Button

PLAY PAGE:

- 1) Menu Button
- 2) Number text
- 3) 2 Answer number buttons
- 4) Score text.
- 5) Score count text
- 6) Quit button
- 7) Time Limit

INSTRUCTIONS PAGE:

- 1) Menu Button
- 2) Instruction 1 title
- 3) Instruction 2 title.

HELP PAGE:

- 1) Question 1 text
- 2) Answer 1 text
- 3) Question 2 text
- 4) Answer 2 text

MAKING THE APP :

WHAT DID I DESIGN?

I chose the background of the home page. I also added the text of the title and changed its size and color. I designed all the buttons of all the pages and structured the content in the logical order.

WHAT DID I CODE?

I had to code all the buttons to connect to another page. I also coded the randomisation of numbers and the addition of several pairs of numbers to make 52.

```

onEvent(▼"button1", ▼"click", function(event) {
  if ( ( getNumber(▼"button1") + num1) == 52 ) {
    score += 50
    setText(▼"scoreLabel", score)
    startAgain() →
  } else {
    score += -50
    setText(▼"scoreLabel", score)
    startAgain() →
  }
});

```

```

onEvent(▼"button", ▼"click", function(event) {
  if ( ( getNumber(▼"button") + num1) == 52 ) {
    score += 50
    setText(▼"scoreLabel", score)
    startAgain() →
  } else {
    score += -50
    setText(▼"scoreLabel", score)
    startAgain() →
  }
});

```

```

onEvent(▼"startButton", ▼"click", function(event) {
  setScreen(▼"Instructions")
});

```

```

onEvent(▼"quitButton", ▼"click", function(event) {
  setScreen(▼"scoreScreen")
  stopTimedLoop() →
  setText(▼"finalscore", "Your Score: " + score)
  checkScore() →
  highScores() →
});

```

- Code blocks used while creating the App.

FINAL LOOK OF THE APP

