



សាលាអន្តរជាតិ ហ្សាយអិន ភ្នំពេញ

ZION INTERNATIONAL SCHOOL OF PHNOM PENH

"GROWING THE FUTURE ONE CHILD AT A TIME"

Term 1 Test
Academic Year 2024-2025
Date: December 13th, 2024

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Subject: Cambridge Computing
Level: Grade 6
Time: 08:45-09:45 AM
Duration: 45 minutes

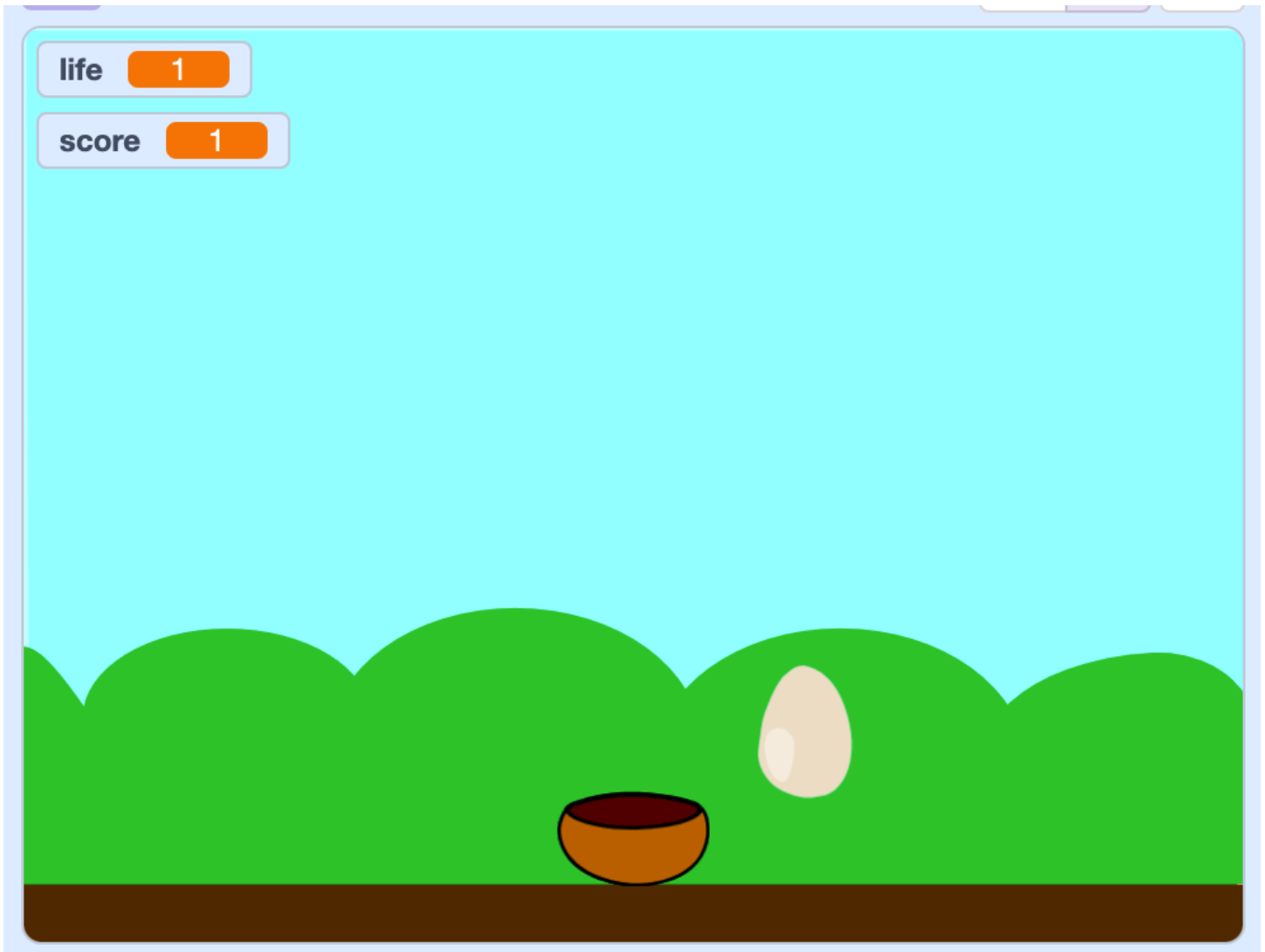
Student's Name:

Instruction

- I. Login to your scratch account
- II. Go to class studio, open **Grade6-Test**, click on the project then **remix** or go to the starter project:
<https://scratch.mit.edu/projects/1104689751>
- III. Follow the instructions to complete the project
- IV. After you complete the project, click on **Share** then **Add to Studio**, add to **Grade6-Semester1-Exam**

Topic:

Suppose we want to build a catch the egg game, where we have two sprites Bowl (player) and Egg (the enemy). The bowl is moving left (left arrow is pressed) and right (right arrow is pressed) to catch the egg. If the bowl is touching the egg, meaning the egg is catching, then the player gets one score. If the player can get 5 scores then the player wins the game, then the game is stopped. However, if the egg is falling down and dropping on the ground, the player loses one life, at the start of the game 3 lives are given. If there is no life left, then the player loses the game.

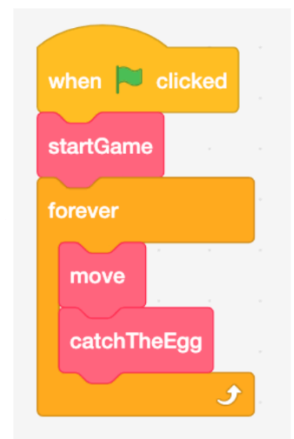
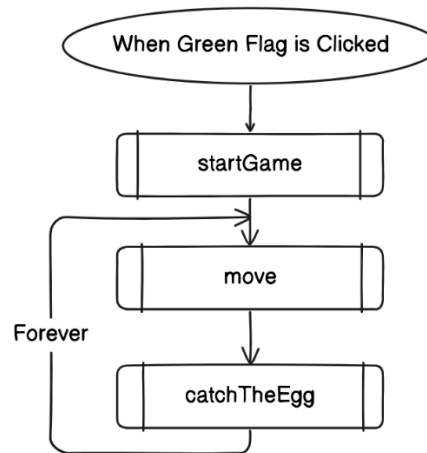


Note: the game needs to be built using my blocks (sub-routine).

Algorithms for Sprite Bowl

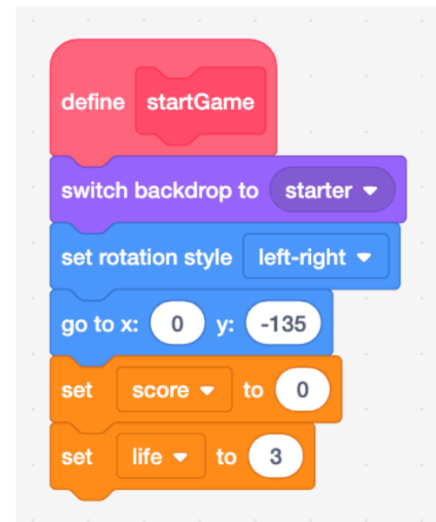
Algorithms For Sprite Bowl

1. When Green Flag is Clicked
2. Start Game
3. Move the Bowl
4. Catch the Egg
5. Repeat Step 3 and 4 Forever



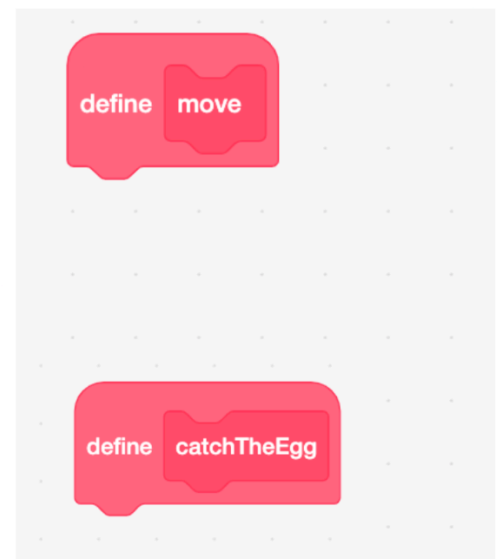
Algorithms For startGame Sub-Routine

1. switch backdrop to starter
2. set rotation style left-right
3. go to position x = 0, y = -135
4. set score = 0
5. set life = 3



Algorithms For move Sub-Routine

1. If right arrow is pressed then
 - 1.1 move to the right by 10 (change x)
2. If left arrow is pressed then
 - 2.1 move to the left by 10 (change x)



Algorithms For catchTheEgg Sub-Routine

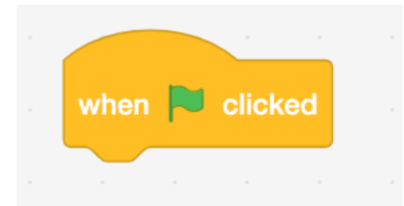
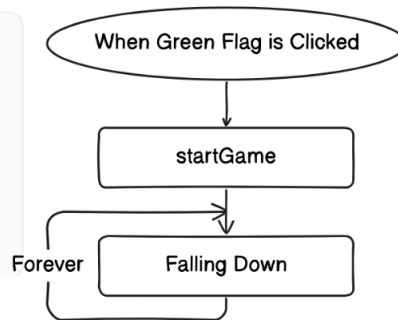
1. If touching the egg then
 - 1.1 wait 0.1 seconds
 - 1.2 increase the score by 1
 - 1.3 if the score is equal to 5 then
 - 1.3.1 switch backdrop to winner
 - 1.3.2 stop all the program



Algorithms for Sprite Egg

Algorithms For Sprite Egg

1. When Green Flag is Clicked
2. Start Game
3. Falling Down
4. Repeat Step 3 Forever



Algorithms For startGame Sub-Routine

1. switch costume to egg-a
2. go to position x = 0, y = 200

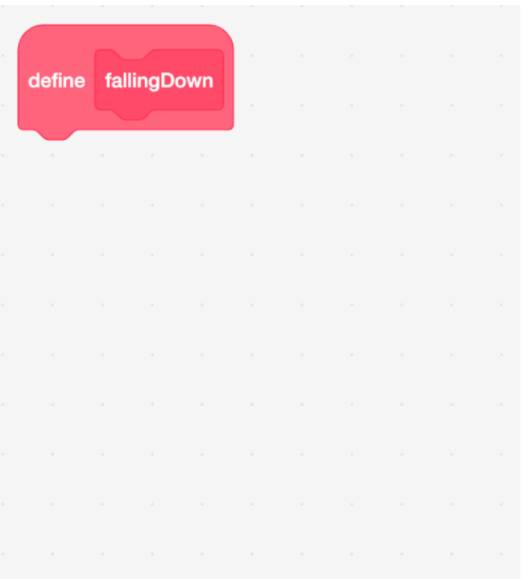


Algorithms For restart Sub-Routine

1. switch costume to egg-a
2. go to position x = random between -220 to 220, y = 200

Algorithms For fallingDown Sub-Routine

1. move down by 4 (change y)
2. If touching color of the ground then
 - 2.1 switch costume to egg-b
 - 2.2 wait 0.1 seconds
 - 2.3 using subroutine restart to fall again from the top
 - 2.4 decrease the life by 1
 - 2.5 check if the life is equal to 0 then
 - 2.5.1 switch backdrop to loser
 - 2.5.2 stop all the program
3. If touching with the Bowl then
 - 3.1 wait 0.1 seconds
 - 3.2 using subroutine restart to fall again from the top



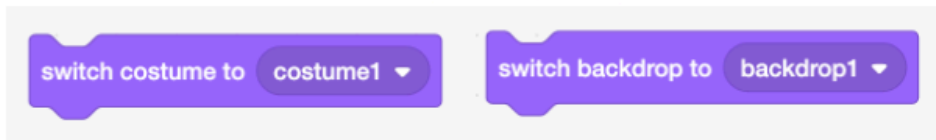
Reference



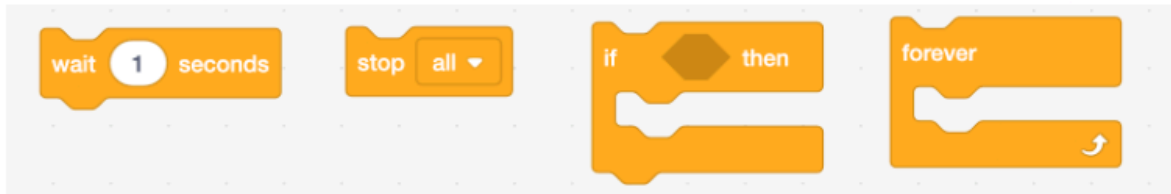
Motion



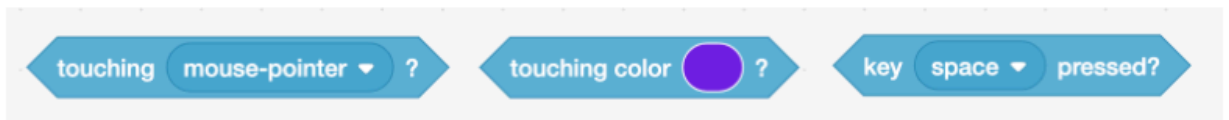
Looks



Control



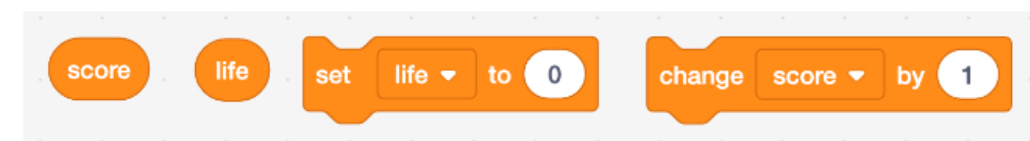
Sensing



Operators



Variables



My Blocks



THE END