hyper pad

VERSION 2

Basic Tutorial

Assignments
Lesson Plan Samples



Educational Program | By Krystal Yee

"Education is the most powerful weapon which you can use to change the world"

Nelson Mandela

INTRODUCTION TO HYPERPAD

Learning Outcomes

- Understand what a game is
- Know the basic overview of hyperPad's functions & tools
- Able to build 1 level on hyperPad using "Platformer Starter Pack"

Discussion

- What do you think a game is?
- And what makes it so fun?
- Do you know who are involved in creating games? Name at least 5 roles.

Assignment

- Identify what constitutes as a game. (5 points)
- List all of the main behaviours in hyperPad.
- Visit the forum & try playing some indie games!

DISCUSSION

"He who opens a school door, closes a prison."

Victor Hugo

Discussion

- What do you think a game is?

- And what makes it so fun?

- Do you know who are involved in creating games? Name at least 5 roles.

1.

2.

3.

4.

5.

Discussion

- What do you think a game is?

Following Collins Dictionary (2020a) "A game is an activity or sport usually involving skill, knowledge, or chance, in which you follow fixed rules and try to win against an opponent or to solve a puzzle."

- And what makes it so fun?

What do you consider fun? Solving puzzles, winning against someone, a challenge? What is fun? Again, following the definition provided by Collins Dictionary (2020b), "... an activity or situation is fun if you think it is pleasant and enjoyable as it causes you to feel happy."

- Do you know who are involved in creating games?

According to Stefyn, N. (2019) there are many people involved;

Project manager

They help ensure that the project runs smoothly & stays on track!

Game developers / programmers

They turn ideas into reality! By using their technological skills, they use code to develop games.

Game designers

They think of ideas to help create a fun game that everyone can enjoy!

Level designers

They develop purposeful tasks that keep players engaged & excited on every level

Game Artists/ Animators

They create the art that you see in the game! And ensure that the game animation is as realistic as possible.

FX artists

They add in the fun sounds you hear when you play games!

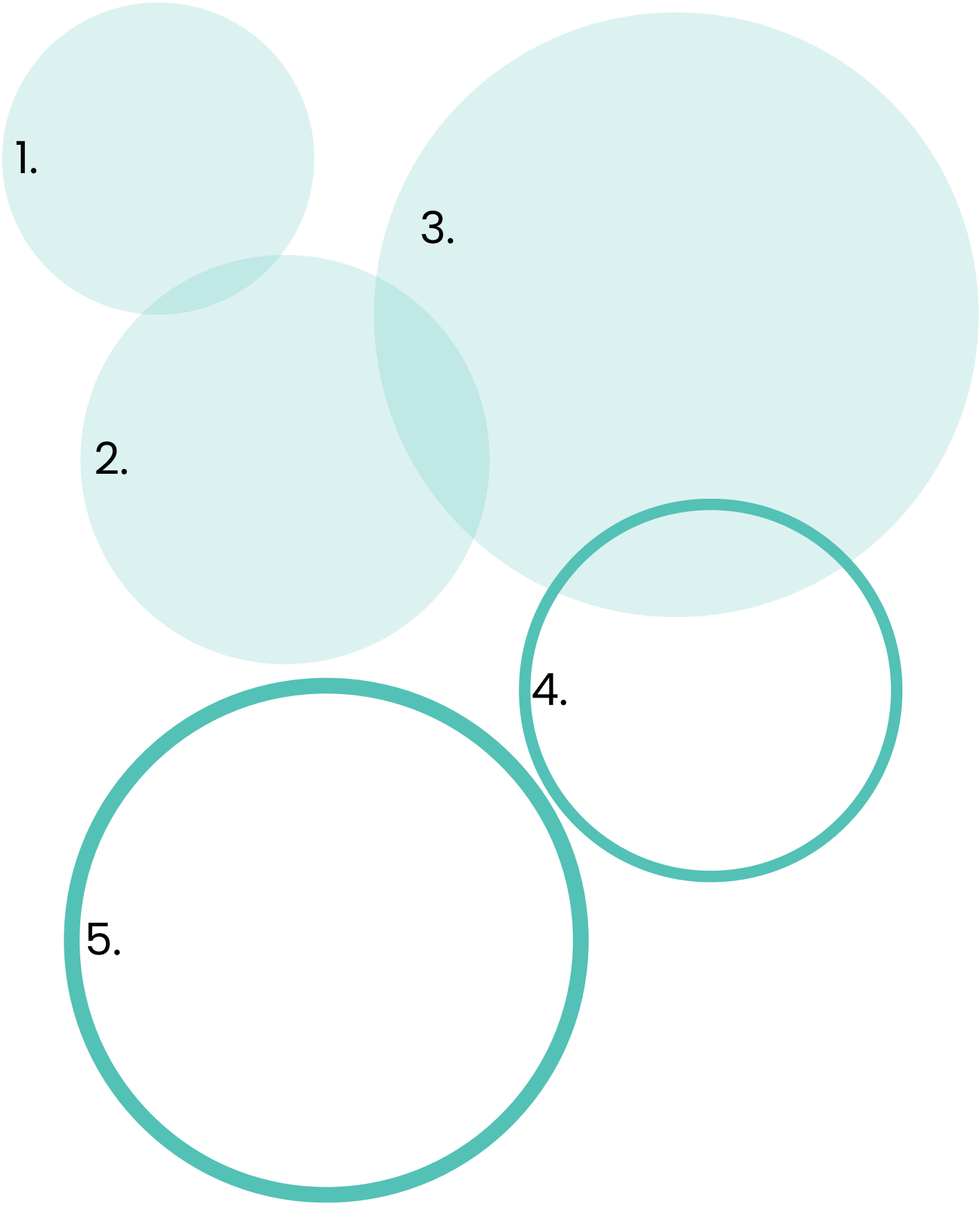
DISCUSSION

"Start where you are. Use what you have. Do what you can."

Arthur Ashe

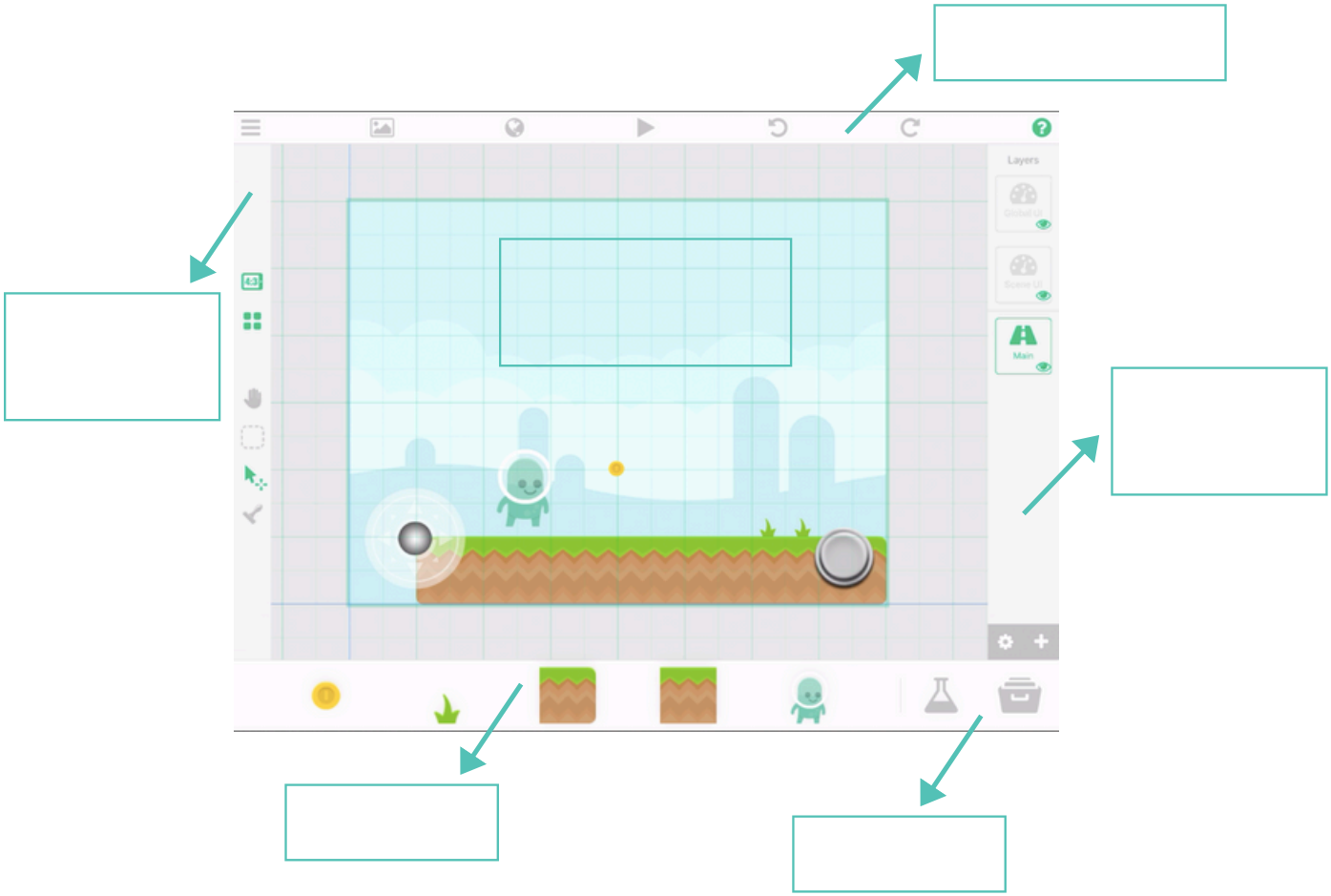
Identify what constitutes as a game.

Give 1 point & 1 reason.



Main Behaviours of hyperPad

hyper pad



- Main Editor:

- Tool Palette:

A)

B)

C)

D)

E)

F)

- Layers:

- Top Toolbar:

A)

B)

C)

D)

E)

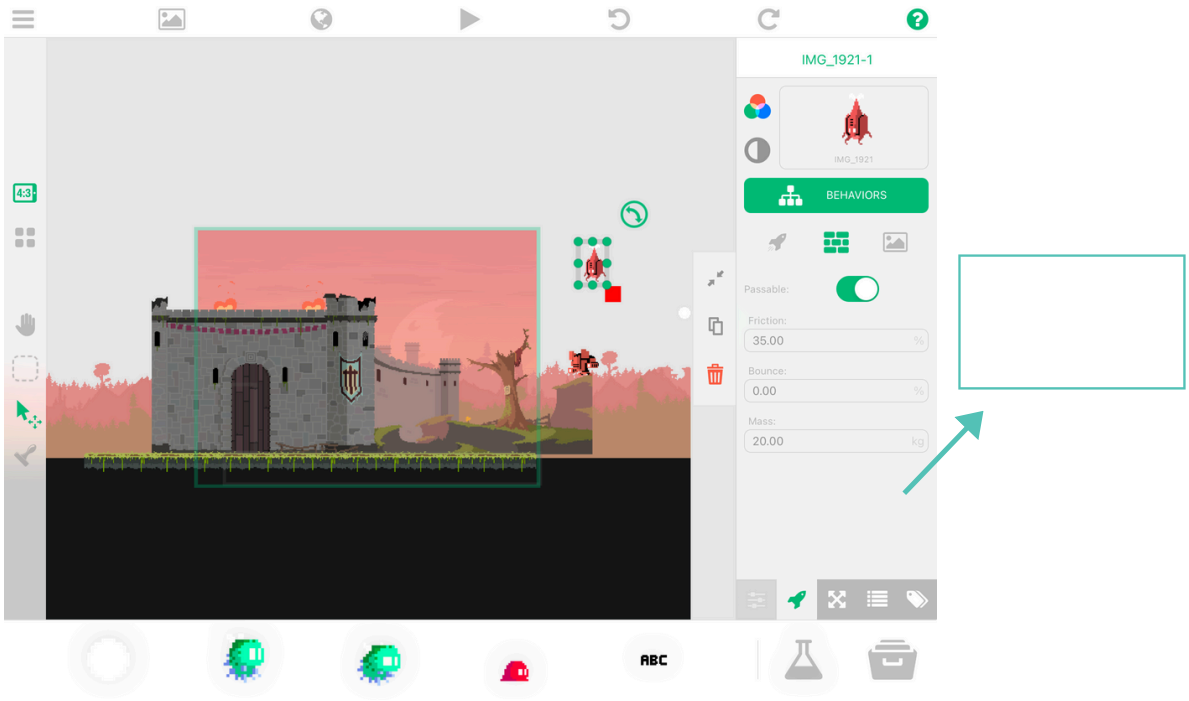
F)

- Object Dock:

- Assets:

A)

B)



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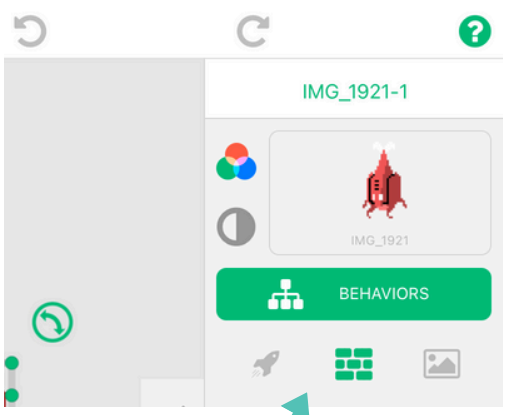
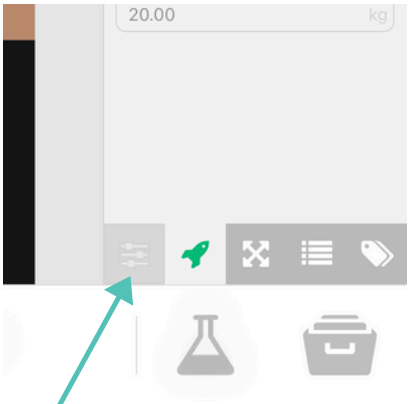


A)
B)
C)



A)
B)
C)
D)

Main Behaviours of hyperPad



Behaviours - mini _____that help build the _____ behind our game.

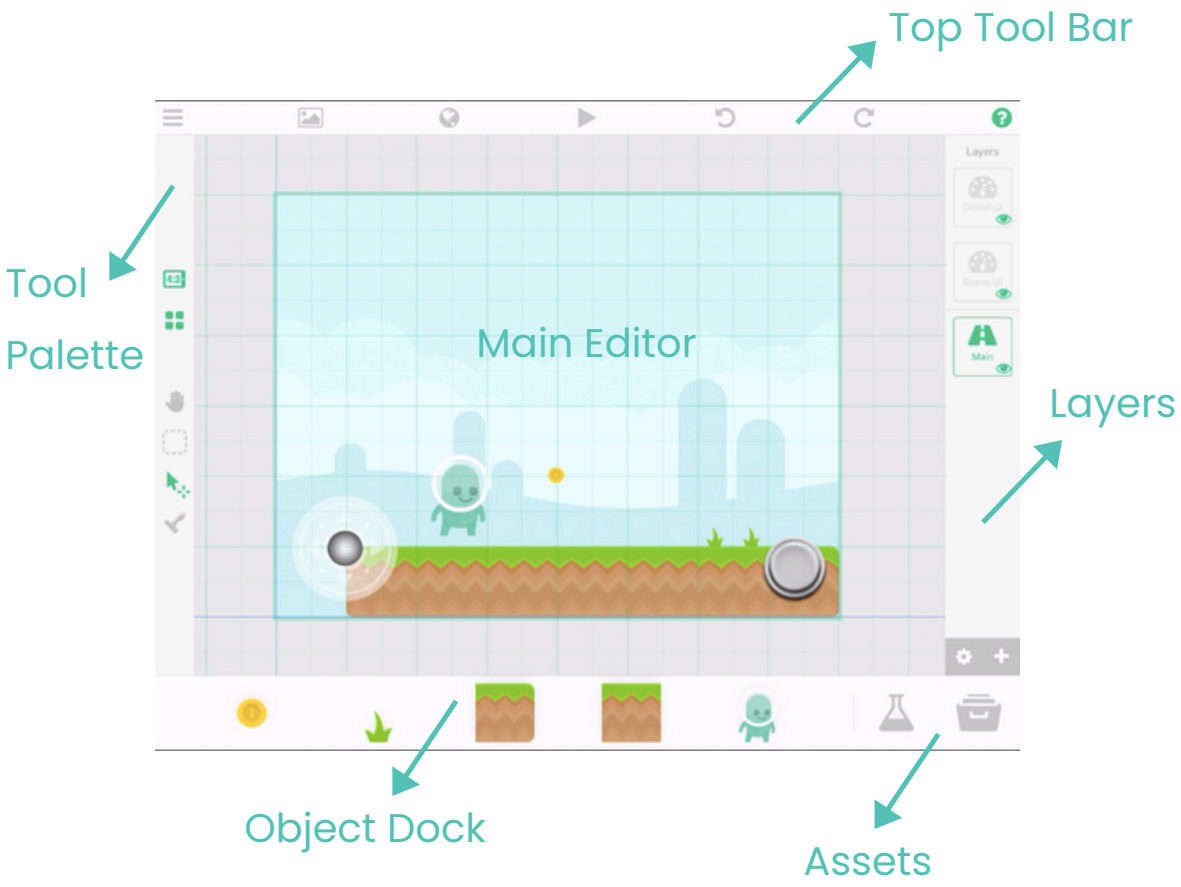
The main Behaviours to note are;

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Events & Actions; events lead to actions that happen

For example, an event would be a player using the "____" button and the action of that event would be that the character ____.

Main Behaviours of hyperPad



- Main Editor:

Anything within the grey borders will appear on the screen when playing the game. Items outside are still "in the game" but will not be seen

- Tool Palette:

Used to easily navigate the screen. A) Screen Resolution B) Grid C) Screen Pan D) Drag Select E) Select/ Move F) Clone Stamp

- Layers:

Objects can be placed into different layers (helps with organizing).

- Top Toolbar:

A) Scene select B) Scene Settings C) Global Settings D) Play E) Undo F) Redo

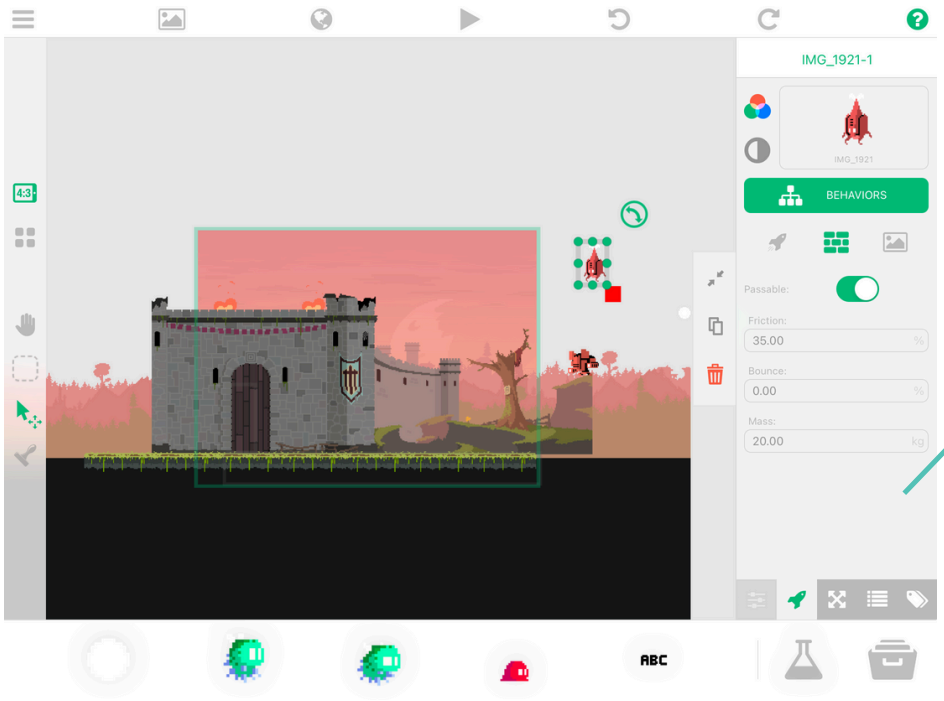
- Object Dock:

Last 5 assets selected will populate the dock.

- Assets:

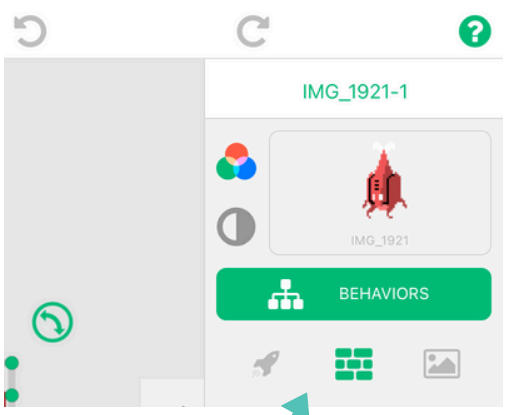
A) Flask, create unique items B) Drawer, all imported assets are kept here

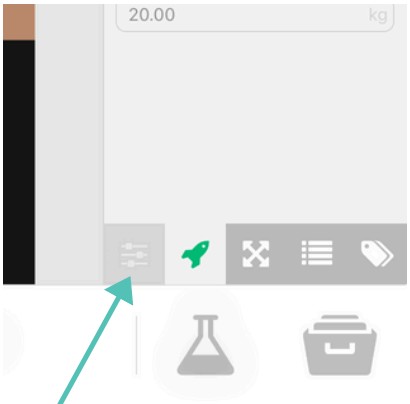
Main Behaviours of hyperPad



Object Properties

Selected Object to show Object Properties





Physics, Wall, Scenery

Properties, Transform, Attributes, Tags

Main Behaviours of hyperPad



Behaviours - mini logic boxes that help build the logic behind our game.

The main Behaviours to note are;

1. Interaction
2. Object
3. Screen
4. Transform
5. UI
6. FX
7. Scene
8. Physics
9. Logic
10. Custom

Events & Actions; events lead to actions that happen

For example, an event would be a player using the "Jump" button and the action of that event would be that the character jumps.

References

Collins. (2020a). Dictionary, Game. Referenced from https://www.collinsdictionary.com/dictionary/english/game

Collins. (2020b). Dictionary, Fun. Referenced from https://www.collinsdictionary.com/dictionary/english/fun

Stefyn, N. (October 13, 2019). How video games are made: the game development process. CG Spectrum. Referenced from https://www.cgspectrum.com/blog/game-development-process

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LOGICAL THINKING

Learning Outcomes

- Understand the logic thinking process.
- Able to break tasks down.
- Firm grasp of "conditionals"

Discussion

- What is logic?
- Why should we break tasks down?
- What are "conditionals"?

Assignment

- Create a chain of 3 or more logical Behaviours
- Identify Behaviours needed to make a character move
- Develop a mini game

DISCUSSION

"Either you run the day or the day runs you."

Jim Rohn

Discussion

- What is logic?

- Why should we break tasks down?

- What are "conditionals"? Gives samples for the 4 types

1. Zero Conditional

2. First Conditional

3. Second Conditional

4. Third Conditional

- What is logic?

Following the definition of "logic" in the context we are using it, "it is the relationship and interdependence of a series of events, facts, etc" (Collins, 2020c).

- Why should we break tasks down?

It helps with managing stress especially when given a considerably large assignment. For example, you would find that you become more productive when you have smaller tasks to complete. That way it becomes manageable, ultimately reducing chances of procrastination (University of Georgia, 2014)

- What are "conditionals"?

Conditionals are general statements that elaborate on hypothetical and/or real outcomes.

General truth – If I sleep early, I will have enough rest.

Future event – If I have 20% battery, I will be charging my phone soon

Hypothetical situation – If I had a million dollars, I would donate!

Hypothetical outcome – If I had prepared my lunch earlier, I would not be hungry now.

In this lesson, we will be discussing simple hypothetical outcomes such as if you flip a coin, there is a 50/50 chance of getting heads or tails.

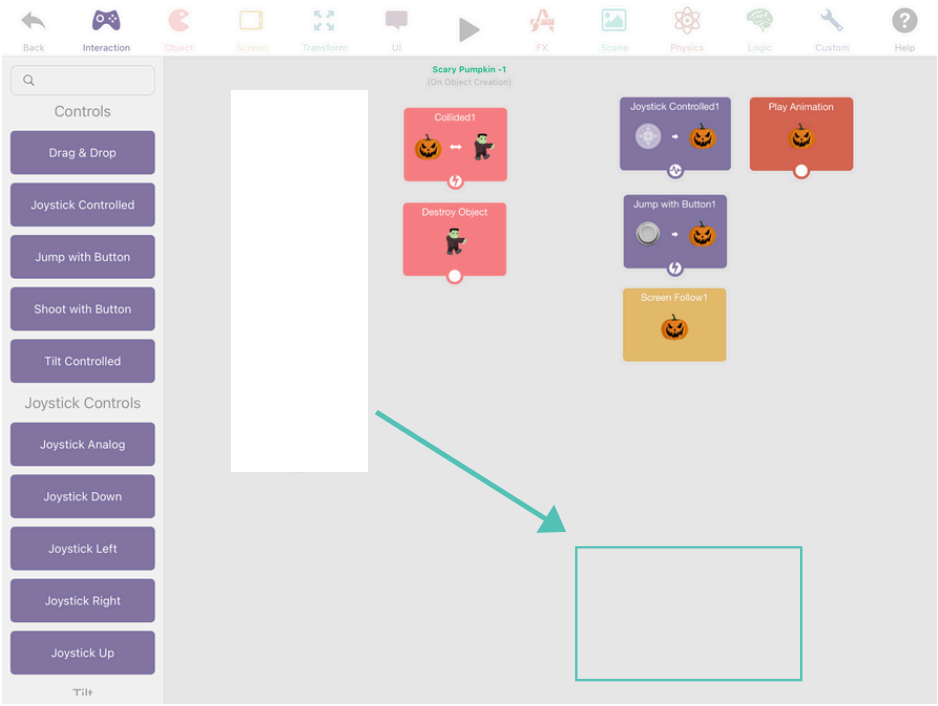
Read more by Jones, M. (2020)

DISCUSSION

"Your attitude, not your aptitude, will determine your altitude."

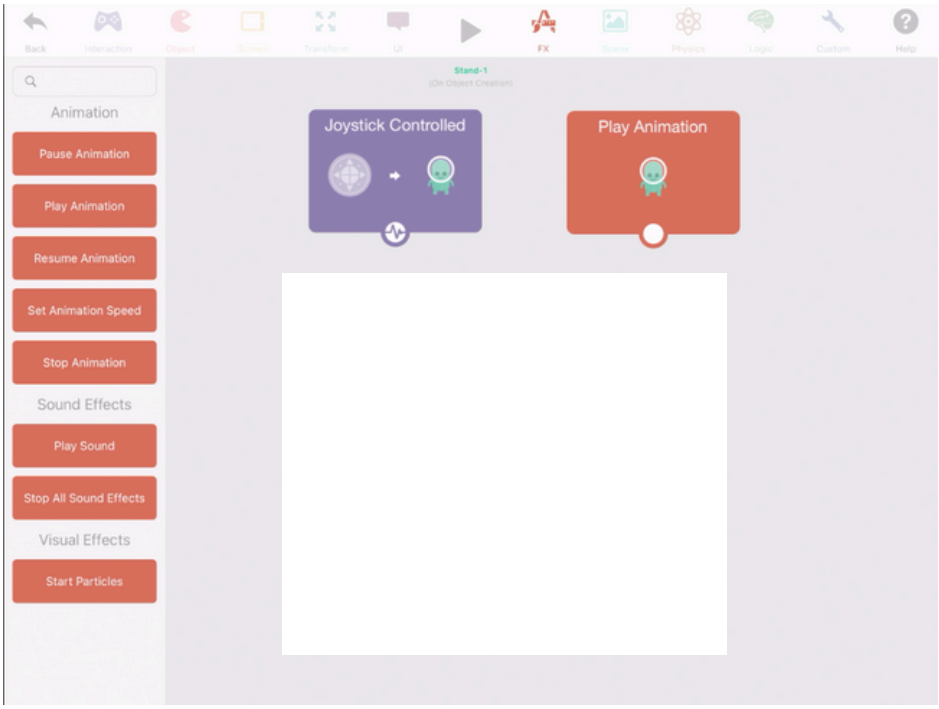
Zig Ziglar

Logical Behaviours

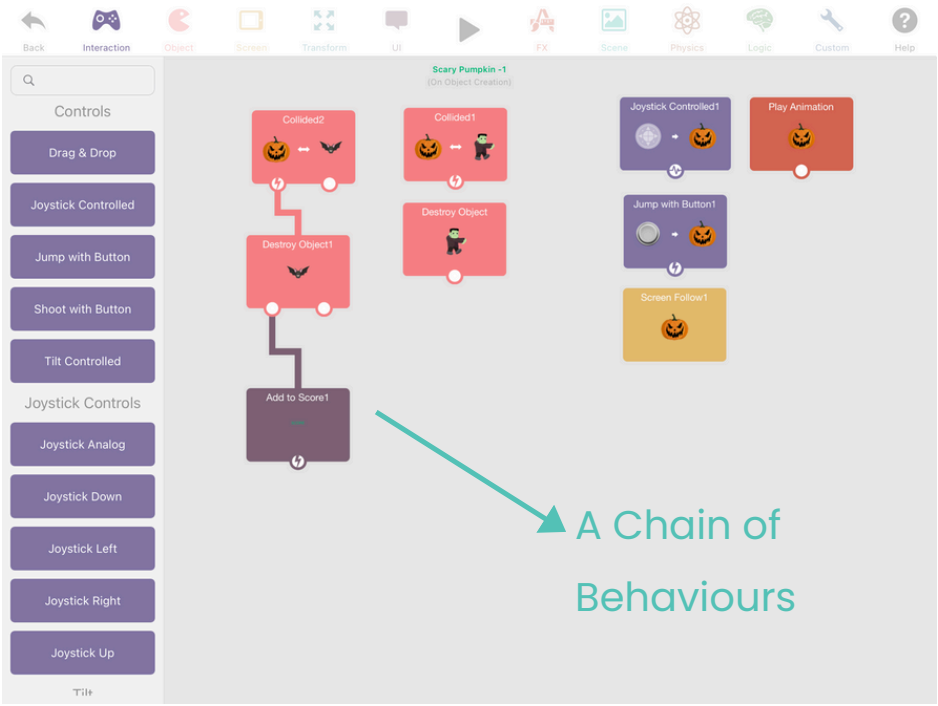


Connect different Behaviours to each other to create a logical outcome

Make a Character Move

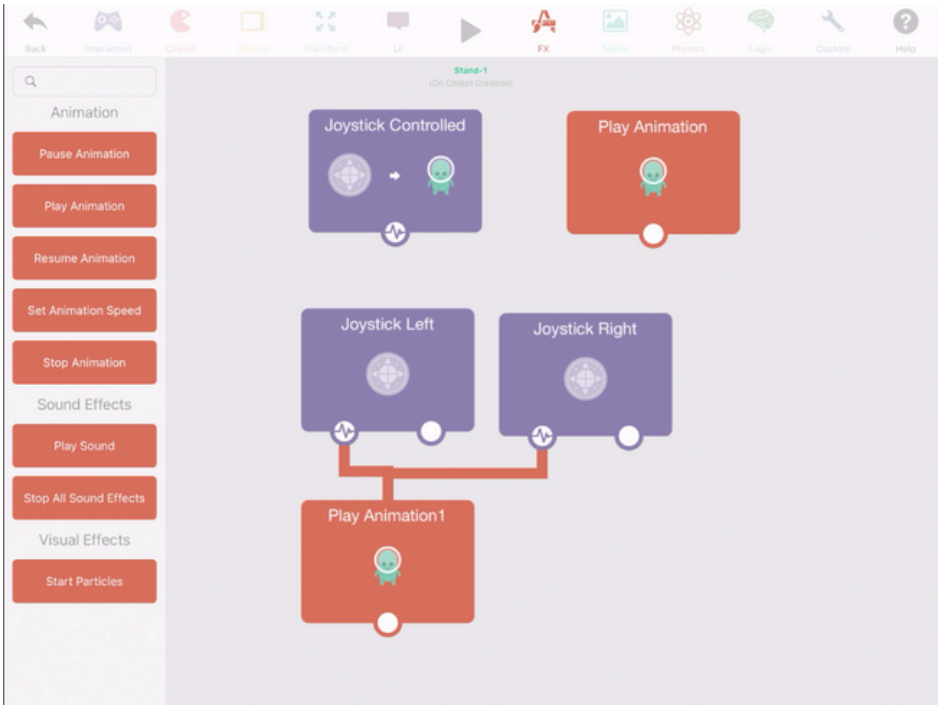


Logical Behaviours



Connect different Behaviours to each other to create a logical outcome

Make a Character Move

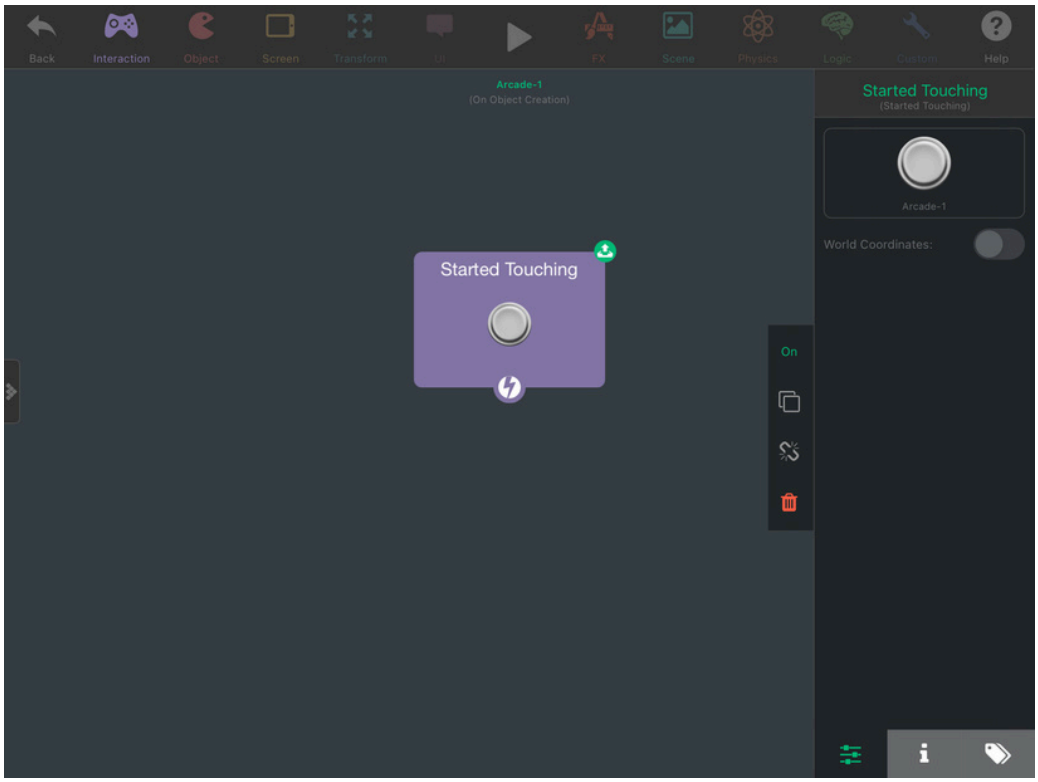


For this assignment, we will be creating a mini outcome game on hyperPad. This is a simple lesson that will incorporate Behaviours from "Interaction, UI & Logic".

In 7 steps, you will be able to create a game of chance using simple logical behaviours.

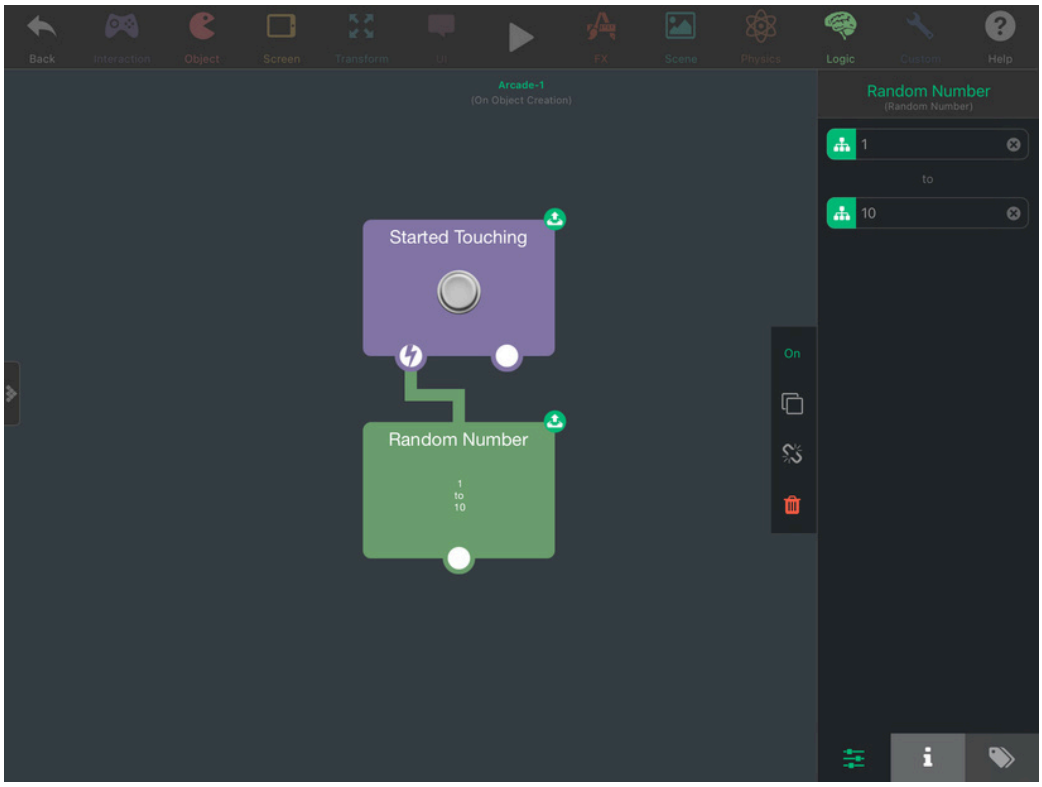
Once you are confident with this, we encourage you to try & develop a more elaborate game. Insert your own designs and add more options!

Step 1:



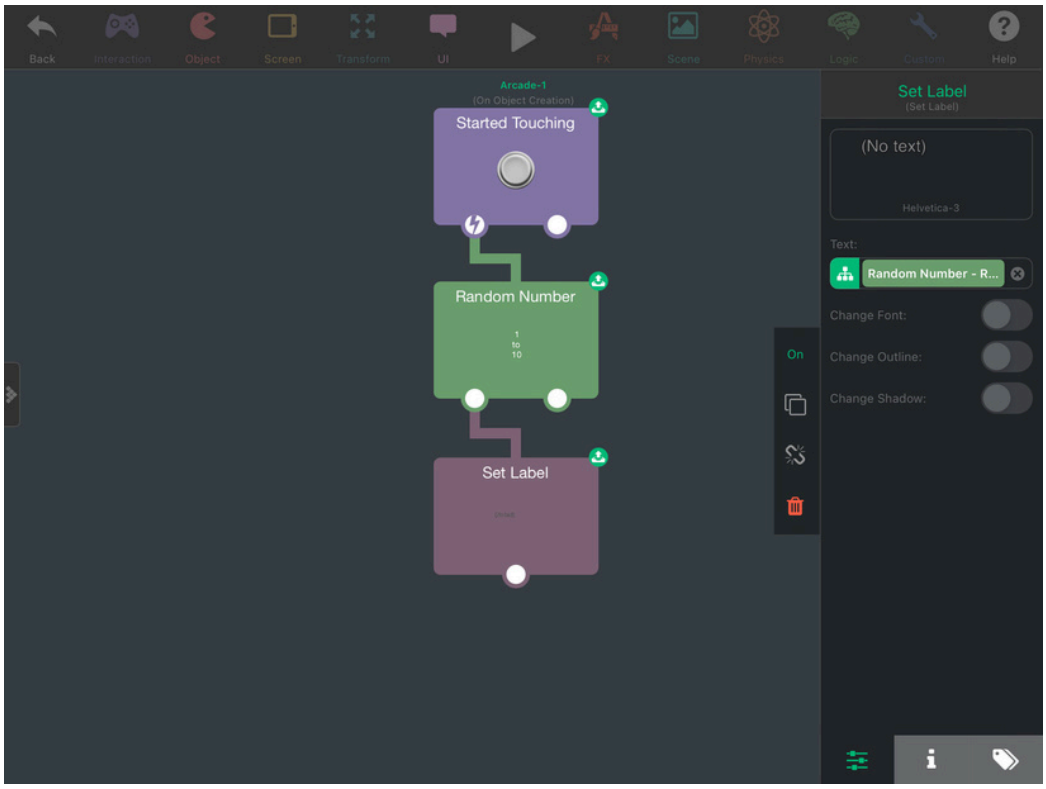
Add "Started Touching" Behaviour.

Step 2:



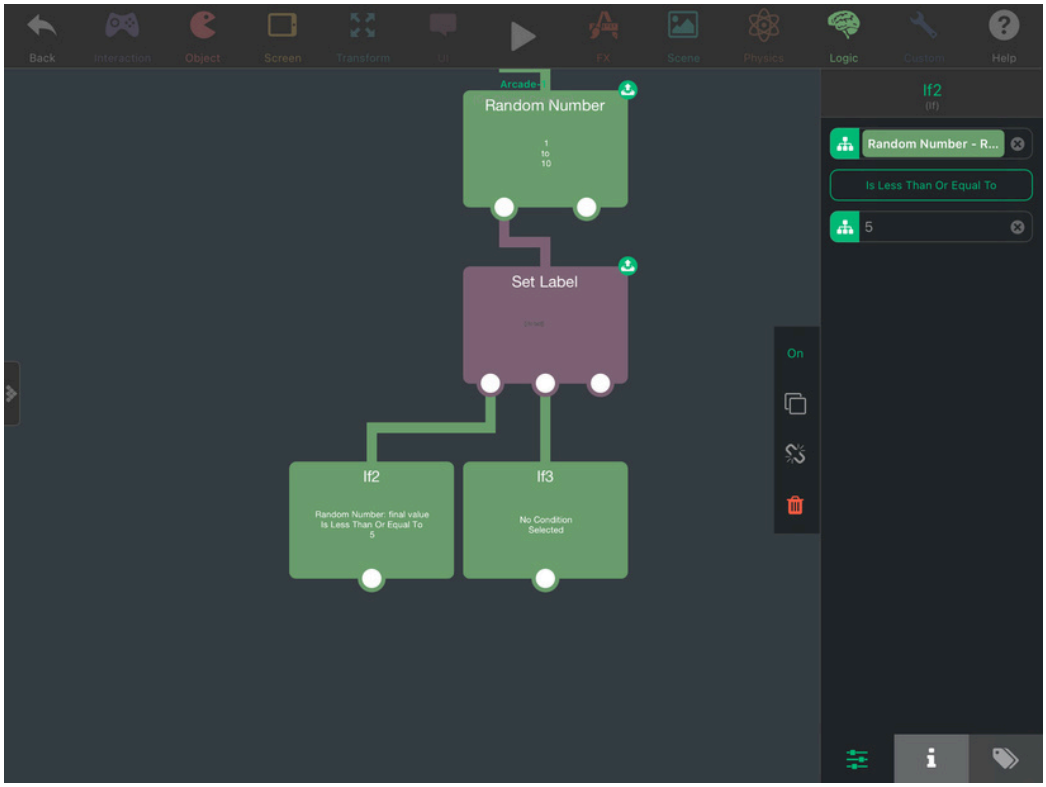
Connect it to "Random Number" from "Logic Behaviours" on the right, use numbers "1 to 10"

Step 3:



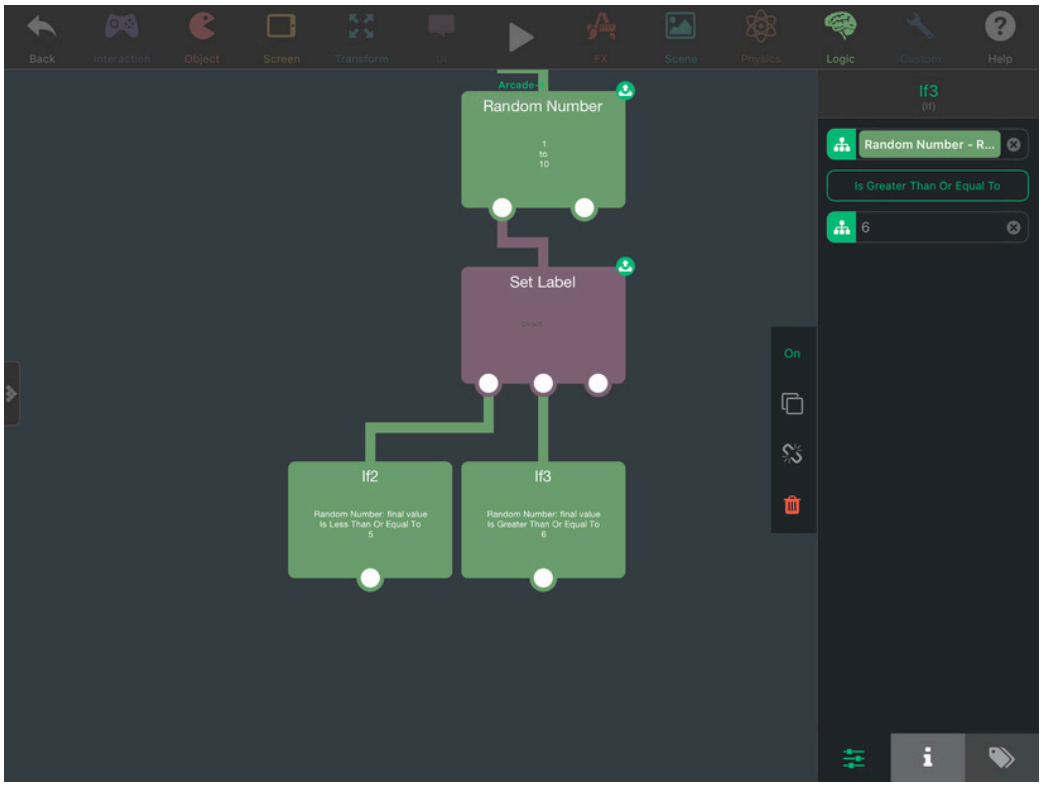
Add "Set Label" Behaviour from UI.

Step 4:



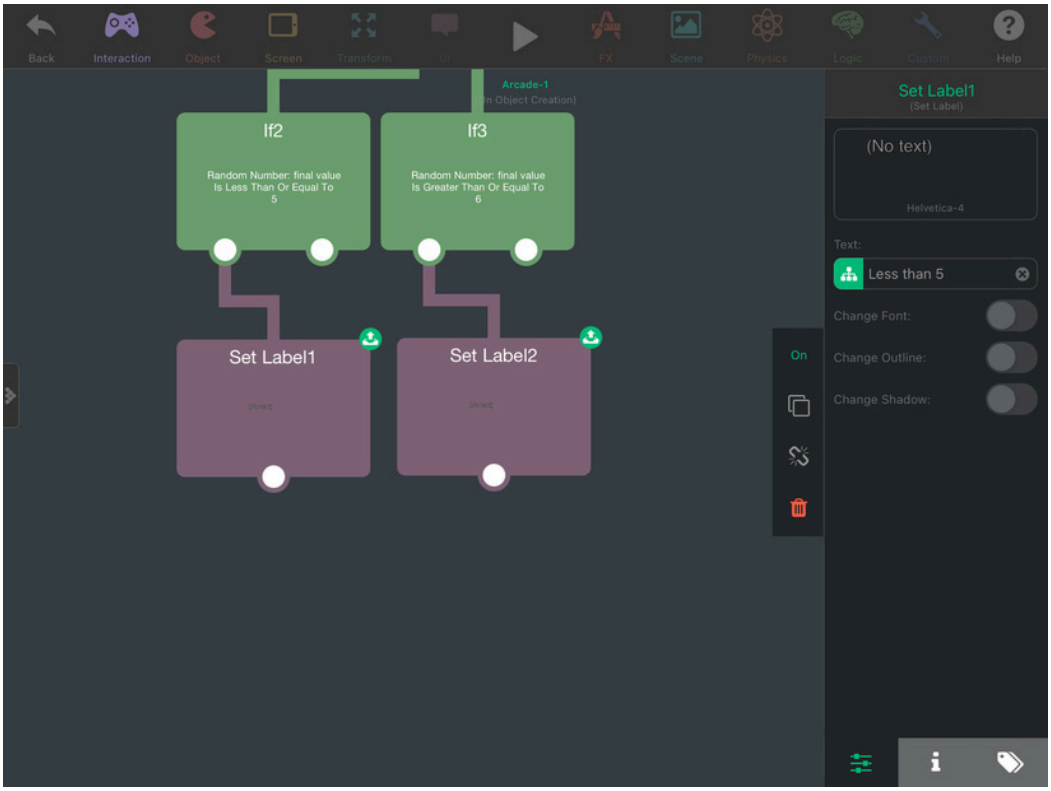
Connect Set Label to "IF2 & IF3" from "Logic Behaviours". Set IF2 to "Random Number, value less than or equal to 5"

Step 5:



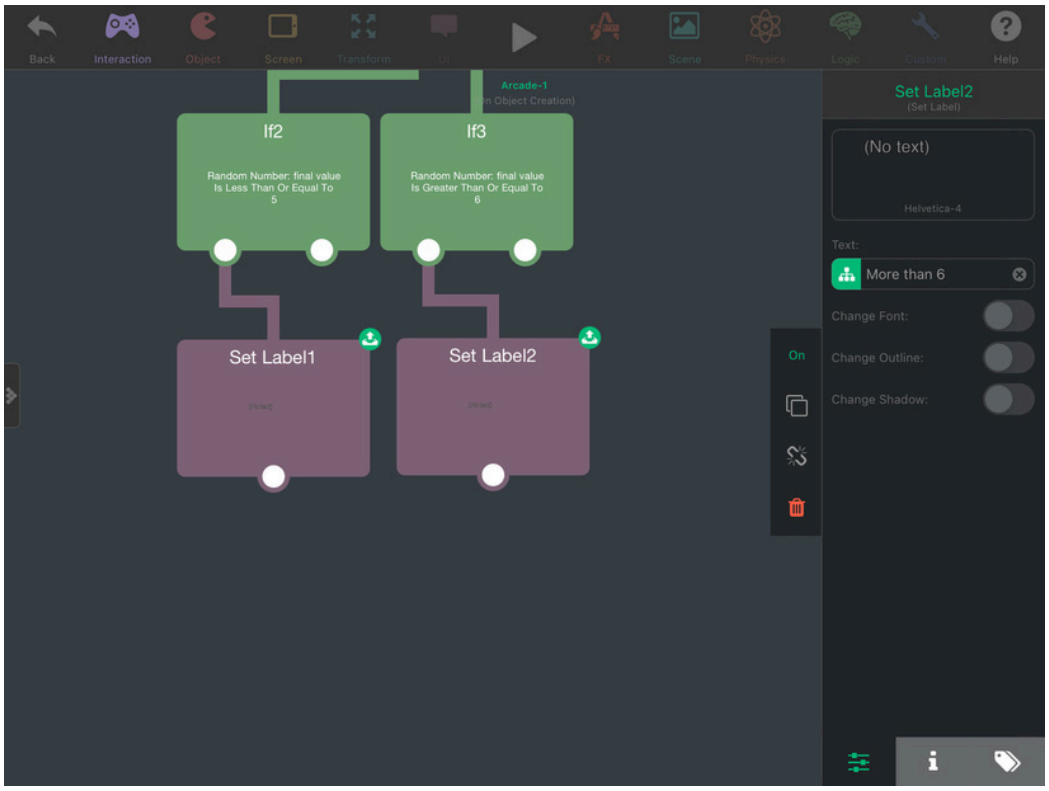
Set IF3 to "Random Number, value greater than or equal to 6"

Step 6:



Add "Less than 5" to "Set Label 1"

Step 7:



Add "More than 6" to "Set Label 2"

And you're done! Add in your own choice of text to custom your game - have fun with it & share it with others.

This is the base idea for many chance-based games, so don't be shy & experiment with the idea!

Have fun with friends & share your project with them.



Quick tip; You can edit other friends projects that have been published onto the hub using the "Branch" option next to "Play"

References

Collins. (2020c). Dictionary, Logic. Referenced from https://www.collinsdictionary.com/dictionary/english/logic#:~:text=Logic%20is%20a%20method%20of,statement%20before%20it%20is%20true.&text=The%20logic%20of%20a%20conclusion,of%20being%20correct%20and%20reasonable.

Jones, M. (June 12, 2020). The Four Types of Conditionals and How to Use Them. English Speaking, Magoosh. Referenced from https://magoosh.com/english-speaking/english-grammar/the-four-types-of-conditionals-and-how-to-use-them

University of Georgia. (March 24, 2014). Break large tasks down into smaller, more manageable pieces. Campus News. UGA Today. Referenced from https://news.uga.edu/break-large-tasks-down-into-smaller-more-manageable-pieces/#:~:text=When%20you%20are%20faced%20with,you%20avoid%20stress%20and%20procrastination.

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Nelson Mandela

EVENTS & ACTIONS CONCEPTS

Learning Outcomes

- Understand Events & Actions on hyperPad
- Able to create unique events & actions
- Able to share projects & edit

Discussion

- What are Events?
- What are Actions?
- What would you add to a game of your choice?

Assignment

- Identifying Events & Actions from the platform game
- Creating a new Event & Action on the platform game
- Sharing the project with a friend & editing their game

DISCUSSION

"Remember that failure is an event, not a person."

Zig Ziglar

Discussion

- What are Events?

Typically there are 2 types, Internal & External.
Internal -

External -

- What are Actions?

- What would you add to a game of your choice?

  Draw your idea out here!

  What is it?

- What are Events?

Events are, the outcomes of something unplanned or planned (Collins, 2020d). In the context of a game, events are what happens within the game.

Typically there are 2 types, Internal & External.
Internal - What happens within the confines of a game. For example, collisions, jumping, walking, moving, sounds.

External - These are inputs caused by actions of "players" through button inputs by touching, swiping & more.

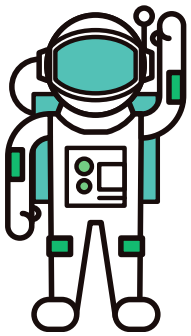
- What are Actions?

Actions are defined as, the task of purposefully doing something (Collins, 2020e). They are the direct result of events occurring. For example, taping the jump button (Event) leads to the character jumping in the game (Action).

Draw your idea out here!

- What would you add to a game of your choice?

What is it?



A spaceman to match hyperPads Rocket!

DISCUSSION

"Don't let what you cannot do interfere with what you can do."

John R. Wooden

Events & Actions
In the Platform Game

Using the tutorial, identify 3 Events & Actions. An example of an Event & Action based on the simple Platform Game would be

- Event; Character, Bob jumps.
- Action; Player clicks on the Jump Button.

Have a brief discussion on Events & Actions.

After completing the Platform Game tutorial, Part 2 - experiment with the available controls and incorporate lessons from the Mini Outcome Game.

Create a new Event & Action unique to you!



Once you are done with your hyperPad project, what are the next steps? Well, sharing it of course! Send your awesome project to friends & family. You could even work together with friends to help improve projects with the edit options.

Games have been known to help develop strong, long lasting friendships that have no borders (Griffiths, 2020). Go the extra mile with hyperPad, create unique games for friends & family that can be used for years to come, only with hyperPad.

CREATE. SHARE. PLAY.



References

Collins . (2020d). Dictionary, Event. Referenced from https://www.collinsdictionary.com/dictionary/english/event

Collins . (2020e). Dictionary, Action. Referenced from https://www.collinsdictionary.com/dictionary/english/action

Griffiths, M. (March 24, 2020). Coronavirus: making friends through online video games. The Conversation. Referenced from https://theconversation.com/coronavirus-making-friends-through-online-video-games-134459

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