Introduction to Computer Science

SNAP! Scavenger Hunt

In this lab, you will explore the functionality of some common blocks and where they are located in the palette.

Content

Programming language constructs to support input/output, logic, decision structure, and loops

The SNAP programming language provides you with a wide variety of programming "blocks" that can be assembled together to create some very cool programs.

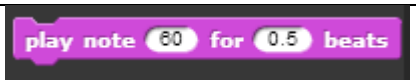
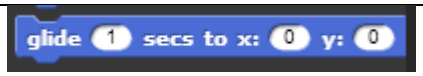
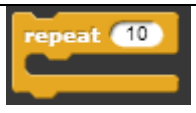
These blocks allow the computer programmer (you!) to perform some important programming tasks such as:

- Receive input from a user
- Output information to a user
- Perform math calculations or compare things
- Make decisions based on data or input from the user
- Loop your programming code so that sections can be repeated a given number of times.

In SNAP these blocks are arranged in the Motion, Looks, Sound, Pen, Control, Sensing, Operators and Variables.

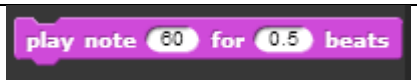
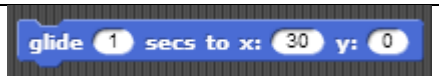
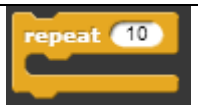
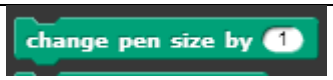
1. Locating common blocks

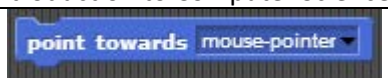
1.1) Fill in the name of the category to which each block belongs in the chart below. The first one is already filled in for example.

Block	Category	Block	Category
a. 	*Motion*	g. 	
b. 		h. 	
c. 		i. 	
d. 		j. 	
e. 		k. 	
f. 		l. 	

2. What does it do?

2.1) Describe the function of each block in the chart below. If the block accepts arguments (contains values that you can change), be sure to test out a few different ones to make sure you fully understand what those values mean. The first one is already filled in for example.

Block	Function
a. 	*Changes the direction that the sprite is facing. The argument indicates the number of degrees the sprite turns clockwise from pointing upwards. When the argument is "90", the sprite points right, and so on.*
b. 	
c. 	
d. 	
e. 	
f. 	
g. 	
h. 	
i. 	
j. 	
k. 	

l. 	

2.2) At this point, you may be noticing some patterns. Use what you've learned from exploring these blocks to answer the questions below about each block category.

a. What do the blocks in the ***Motion*** category do?

_____

b. What do the blocks in the ***Looks*** category do?

_____

c. What do the blocks in the ***Sound*** category do?

_____

d. What do the blocks in the ***Pen*** category do?

_____

3. Put it all together

You are now going to use some of the blocks you've explored to create, save, and submit a Snap! program.

3.1) Create a script that plays 4 different notes with at least 2 rests in between.

3.2) Use the *repeat* block to play your song on loop

3.3) Create a script that initializes the sprite at position (-20, 10). Then, have the sprite draw a shape that has at least 2 different colors and 2 different line thicknesses. *An example would be a square that has 2 thin red sides, and 2 thick blue sides.*

3.4) When you've completed all of the scripts above, save your file, share it, and then copy the unique URL below. *Be sure to share and publish your file before pasting the URL.*

File URL: _____

Grading Scheme/Rubric

Lab 1.2 Criteria	
1.1 Locating common blocks	0.2 points
2.1 What does it do?	0.4 points
2.2 Categories	0.3 points
4 different notes, 2 rests in between	0.4 points
repeat block plays song	0.3 points
multi-color, multi-line thickness shape at (-20,10)	0.4 points
BONUS: draw picture with at least 4 blocks from 1.1 and 2.1	0.5 points
PROJECT TOTAL	**2.5 points**