Lesson 1 Worksheet

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Resources:

Getting Started Instruction
BlueBird Connector
Finch Class Methods
BlueBird Connector
Lesson 1 – Moving and Turning

Exercises

1. For the Lesson 1 Exercise create a file and name it Lesson_1.py
2. Use the file to write the code for Exercise 1,2, 3 and 4. In your code add a print statement before each exercise indicating the exercise number.
3. As you progress through the exercise Add, Commit and Push your program file to the Github Repository

DISCUSSION QUESTIONS

1. What's the difference between a class and an object

   The difference between a class and an object is that an object is what represents a finch, which is what will be used in the later methods of the lines of code. But, a class is what specifies the different methods. There are some classes that label some methods as constructors, or output methods.

2. What is a parameter and how is it used

   A parameter is a certain instruction in a method that helps make the finch do what it does. There are some parameters that need to know which direction the finch is heading towards, or how fast the finch might follow their code. Each parameter needs to be filled out before the robot can actually test the code correctly.

3. How many parameters does the setMove() method have

setMove() has three parameters. The first parameter is the direction, which specifies what direction the finch is moving in ('F' or 'B'). The second parameter is the distance, which specifies how far the finch is going. And, the last method is the speed, which specifies how fast the finch is going to run the method of the code.

4. How do you comment your code and why is it important make comments

To comment out your code, you need to press shift and 3. It is important to make comments because you might not know what a method does, and writing a comment telling yourself the exact function will be helpful to understand what else you want your finch to do. Also, there might be moments when the finch isn't working like it's supposed to. Commenting out lines of code creates a step by step process of finding out the solution.

5. What is a Python Library

A Python Library specifies what methods belong to certain classes. It provides the coder an easy access way to see what each code does and if they want to put it in their code.

6. What is Abstraction

Abstraction is when the details of a code are being hidden to the user, only limiting them to seeing the important details of what lines they are running.

7. How many parameters does the setTurn() method have

There are three parameters the setTurn() method has. The first parameter is the direction, which indicates which direction the finch is turning ('L' or 'R'). The second parameter is the degrees of the turn, which can make the robot go 90 degrees or 180 degrees. The third parameter is the speed, which specifies how fast the finch is enacting a certain method of the code.