Turtle Library

What is Turtle

- Turtle is a python library that allows you to use drawing style graphics
- Animations
- It is important to remember that using this drawing tool is like drawing on a graph, keep in mind your x and y axis and negative and positive quadrants

Basic Turtle Functions

- Type in from turtle import *
  - This will give you some ease vs using the import statement "import turtle"
- Create a drawing object. You call functions on this object
  - mypen = Turtle()
- mypen.forward(10) will move your pen 10 steps, you can change the number to show how far you want to draw
  - Notice you call the name of your Turtle() (mypen) on the function "forward"

Basic Turtle Functions

- mypen.left(45) and mypen.right(45) will move your drawing tool 45 degrees in a positive direction (up)
- mypen.backward(12) works the opposite of .forwards(amount)
- penup() will lift the drawing tool (you defined as mypen) from the page so it will not draw
- pendown() will put the drawing tool back down on the page so it can draw again

Colors in Turtle

- mypen.color("red") will change the line you draw from back to whatever color you specify as a STRING in the parenthesis
  - Here is a list of all possible colors https://trinket.io/docs/colors
- begin_fill() and end_fill() remember the starting and ending coordinates of your pen and then fill it with the .fillcolor("red") that you specify!
- You can also change the shape("turtle") of your drawing tool like we will do later in a racing game!

Learn how to make a simple racing game

- Link to how to do a simple Turtle racing game

  https://projects.raspberrypi.org/en/projects/turtle-race

- Link to the finished code

  https://trinket.io/python/6751df0f24

Learn how to draw a spiral

- Code for the spiral project
https://trinket.io/python/011c425ad0

- Another spiral that is filled in
https://trinket.io/python/20a4d30e87

Official Python Documentation

- Here is the official documentation for the python turtle library. This will be helpful in your projects for if you want to add anything extra to your code

https://docs.python.org/3.3/library/turtle.html

Notes

- Here is where you should write turtle code
  https://trinket.io/python
  - Either save the link or copy and paste into a google doc
- Here is where you should write Tkinter gui code
  https://trinket.io/features/pygame
  You will need to delete code from the editor

Here is the Code !!!!!!

✦

https://github.com/kt3a/GWCPython

Copy and paste to run!!