

Intro

Over the next 2 weeks you'll be getting to grips with PythonArcade.

We'll start off by getting everything set up and working I've then provided 4 challenges for you to complete over the 2 weeks.

Set Up

Step 1 – Open up a terminal window (windows key, then type “term”)

Step 2 – In terminal navigate to the desktop using the commands we learnt last week (`cd Desktop`)

Step 3 – type and run the below command

```
git clone https://github.com/meiningerj/QRBCPythonArcade.git
```

Step 4 – You should now see a new folder on your desktop called “QRBCPythonArcade”

Drawing Primitives

Inside the QRBCPythonArcade folder you'll find 3 files named Square.py, Circle.py, and Triangle.py. To run each of the files follow the below two steps

Step 1 – Open a terminal and navigate to the “QRBCPythonArcade” folder using the `cd` and `ls` commands

Step 2 – Once you're in the folder type the command `python3` followed by the file name. For example `python3 Square.py` (remember it's case sensitive)

Read the comments I've added to each of the files and run each of them and see what happens when you change some of the variables in the code. Try to work out what each of them does

Challenges

1. Change the code in Square.py so that you're left with a portrait rectangle that is blue
2. Change the code in Circle.py so that it touches all 4 edges and is green
3. Change the code in Triangle.py so that you have 2 separate right angled triangles next to each other in different colors

Testing Your Skills

Inside the QRBCPythonArcade folder you'll find the file 'PyhtonArcade.py' this will be your starting point for all of the below challenges. You might want to make copies of it for each of the below. (you can just do this by right clicking on the file and choosing copy and paste just like in windows)

Challenge 1 – Write the code so that the game has two rectangles that fill the screen and split it into two equal halves. One half blue and the other red

Challenge 2 – Draw a yellow circle that touches all 4 edges with a red square on top and directly in the centre

Challenge 3 – Draw a square, circle, triangle, and semi-circle (ellipse) all on one game screen making sure they don't touch

Challenge 4 – Draw you best impression of a cartoon house. It must have 2 windows, a door, a roof and a chimney.

Challenge 5 – Try and draw any animal good enough so that the instructor can guess what it is without any clues

Challenge 6 (advanced) – Draw a black and white chess board with 5 rows and 5 columns. You must use a loop. (hint: it will probably be a for loop with a counter)