

Co-op 2019 Fall

Hatch Canada

Shari Sun



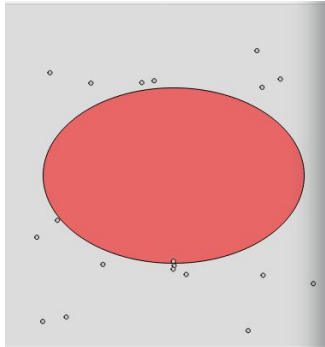


Prime Platform

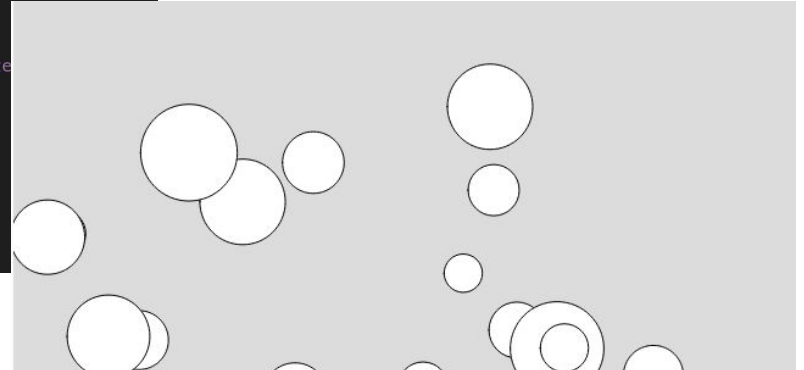
<http://app.hatchcoding.com>



Processing.js / P5.js



```
JS hypotonic.js x
home > shari > Desktop > everything > hatch > p5js > JS hypotonic.js
49   var right = cell.xPos + cell.width/2 - this.size;
50   var up = cell.yPos - cell.height/2 + this.size;
51   var down = cell.yPos + cell.height/2 - this.size;
52   if (this.xPos > left
53       && this.xPos < right
54       && this.yPos > up
55       && this.yPos < down) {
56     return true;
57   }
58   return false;
59 };
60 this.display = function() {
61   fill(200);
62   ellipse(this.xPos, this.yPos, this.size);
63 };
64 };
65 var cell = new Cell();
66 var antibodies = [];
67
68
69 var checkCollision = function() {
70   antibodies.forEach(function(antibody) {
```



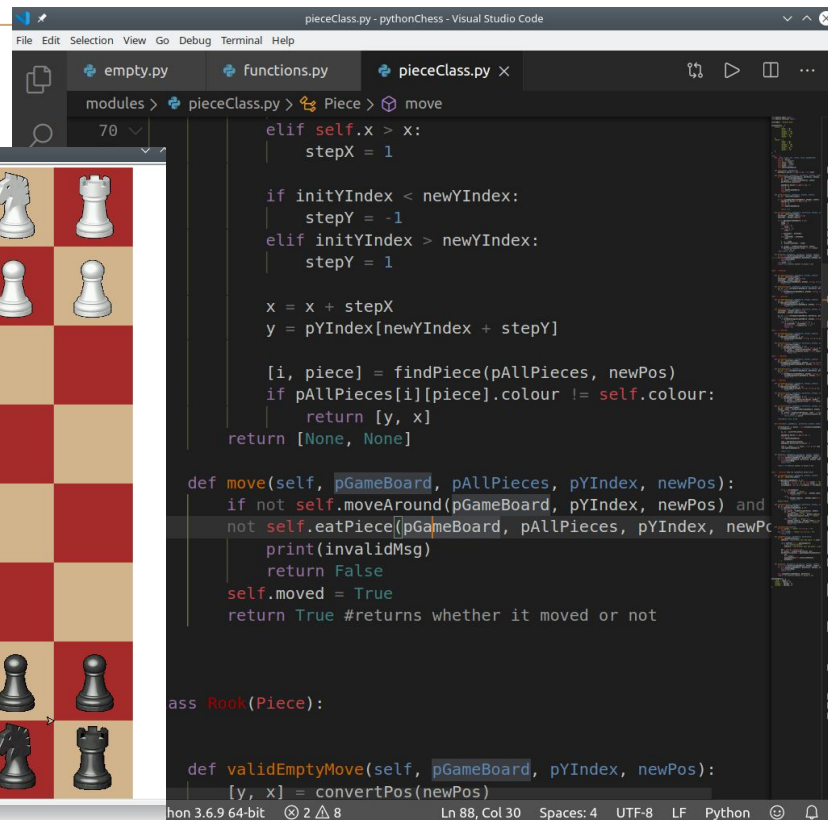
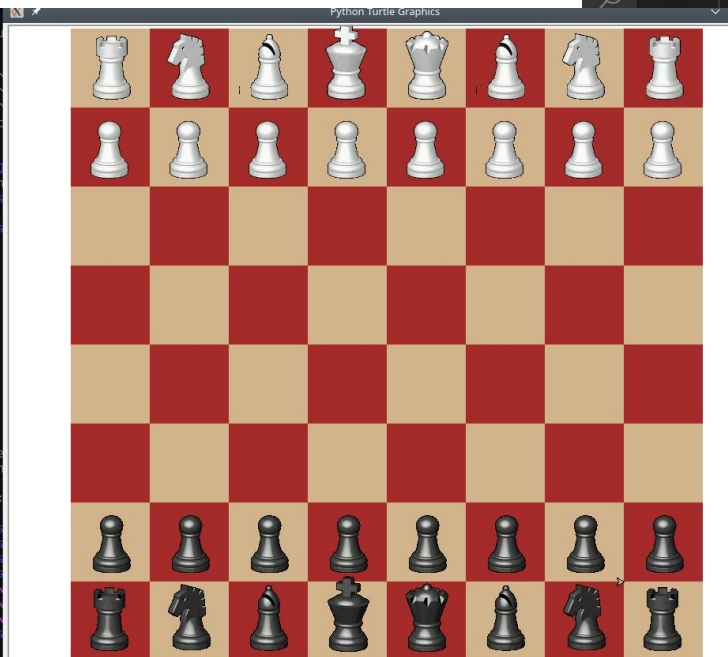
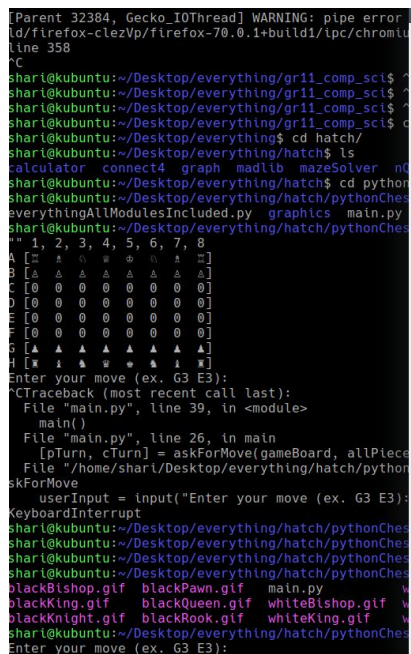


Alpha Platform

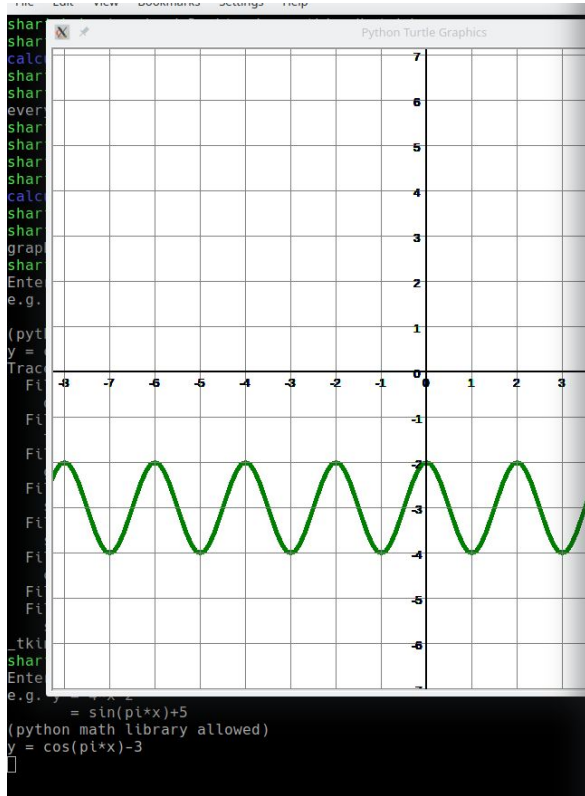
<https://repl.it/teacher/>



Python (Turtles library) => Chess



Python (Turtles library) => Graphing software



```
graph.py > ...
18 SCALE = 50
19 FONTSIZE = 10
20 SAMPLE_INTERVAL = 0.1
21
22 def drawLine(x, y, x2, y2, weight):
23     graph.pen(pencolor=colour)
24     graph.pensize(weight)
25     graph.penup()
26     graph.goto(x, y)
27     graph.pendown()
28     graph.goto(x2, y2)
29
30 def text(text, x, y, align='center'):
31     graph.penup()
32     graph.goto(x, y)
33     graph.write(text, align=align, font=font)
34
35 def drawBackground():
36     for i in range(-SIZE, SIZE+1, SCALE):
37         drawLine(i, -SIZE, i, SIZE, 1)
38         drawLine(-SIZE, i, SIZE, i, 1)
39
40     drawLine(0, -SIZE, 0, SIZE, 2)
41     drawLine(-SIZE, 0, SIZE, 0, 2)
42     for i in range(0, SIZE, SCALE):
43         text(i//SCALE, i, -FONTSIZE, 'x')
44         text(-i//SCALE, -i, -FONTSIZE, 'x')
45         text(i//SCALE, -FONTSIZE, i, -FONTSIZE, 'y')
```

Mini projects (Teaching concepts)

Assignments

Published 58

Scheduled 0

Drafts

Published(Old-New)

☐ Enable dependencies

Name

Is Steve Sleeping - IF / ELSE

Robots -- CLASSES / BASICS (coul...

Add consecutive numbers -- FOR ...

Multiple messages - FOR LOOP (S...



```
1 name = input("What's your name: ")
2 cupcakeWar = input("Do you want a cupcake war: ")
3
4 if name == "Charlie" and cupcakeWar == "yes":
5     print("Okay! Let's make Kayla bring us cupcakes!")
6 elif cupcakeWar == "yes":
7     print("Oh no, only Charlie is allowed to petition for cupcake wars")
8 else:
9     print("Oh, that's too bad D:")
```



```
Python 3.7.4 (default, Jul  9 2019, 00:06:43)
[GCC 6.3.0 20170516] on linux
```



Your instructions:

Ask the user for the

Only agree to host
cupcake war.
If it's someone else
Otherwise, print "C

ED - 400 Points

Challenge 1:
Have a different ou

Challenge 2:
Let someone name

Challenge 3:
Only allow the cup

Misc

Taxonomy for programming expertise

File Edit View Insert Format Data Tools Add-ons Help Last edit was made on November 24 by Kayla Lambie

100% Arial 10 B I U A

Core Competency			
A	B	D	E
Core Competency	Category	This is a measure of...	This is a valuable skill because...
Requirements Based Programming	Extending existing projects	This is a measure of a student's ability to dissect a project and manipulate it or take an existing coding project and build on top of it.	This is a valuable skill because software developers are often asked to take existing code and improve it.
	Working with requirements, Amount of Practice	This is a measure of the volume of coding tasks/elements a student has completed.	This is valuable because, much like practicing the piano or playing a sport, "time on the field" counts. Research has shown that about 10,000 hours of work is required to become an expert at something. This skill measures progress towards 10,000 hours.
	Working with requirements, Difficulty of Practice	This is a measure of the type of challenges, problems, and projects a student is working on.	This is a valuable skill because, in addition to working towards 10,000 hours, students should be consistently pushing themselves to take on more difficult tasks. By measuring the difficulty of practice, we measure the progress in expertise within the discipline of programming literacy.
	Creative Coding	This is a measure of a student's ability to create. Computer programming is the magic of building something useful, which means useful to the person who is creating or useful to the person asking for something to be built. This skill measures a student's ability to create something with very few guidelines, which measures creativity.	This is a valuable skill because, in addition to delivering on other people's requirements, software engineers should be able to interpret and use creativity, imagination, and critical thinking to build new and useful things.
Programmatic Research Skills	Self-Documentation	This is a measure of a student's ability to re-use code they have previously written in new projects. Furthermore, it is a measure of a student's ability to write simple and effective comments while adhering to the Javascript style guide and coding conventions.	This is a valuable skill because being able to look things up includes remembering what projects you've completed in the past and being able to re-use that material to shorten the amount of time you need to complete your next project.
			This is a valuable skill because it enables a student to solve any programming problem. Computer programmers have the ability to

The WHY sheet for the skills

All Levels Grid, Prime Sheet11 Alpha (KL) All Levels Grid, Prime

TITLE (Condi

BASIC INFORMATION (checks for conditions. If it does condition, it moves on to the next check)

This is my piece of code

Ex.

if (condition):

#this piece of code runs

elif (different condition):

#now this line of code runs

else:

#this last piece of code runs

SAMPLE CODE

#comments can be added beside the import lines explaining #

#use a different colour for comments

```
a = int(input('enter a number: '))
```


THE END