

This assignment has three parts.

Part One: Write a program to draw a picture by defining functions and using Turtle Graphics. Use the following guidelines to write your program.

Insert your pseudocode here:

Background

- Make two functions to make it easier to draw more items with less code
 - Function for drawing a house- Make color blue, and draw a basic house with turning left and right to make the shape and turning on shape fill. Also adding a red door at the end.
 - Function for drawing a tree- Set the color of pen to brown for trunk, go straight up to make trunk, then go to green and make a circle with fill on at the top of the trunk going straight up.

Output

- Add draw house function once to make the house
- Add draw a tree function twice in to separate spots by setting positions
- Say the name of my artwork Jack's House

Insert a copy of your code from IDLE here:

#Jack Sweeney 7/17/18

#Program to draw "Jack's House" with functions for drawing the trees and houseName.

import turtle

#Draw a house

def drawHouse(houseName):

#Main House

houseName.color("blue")

houseName.begin_fill()

houseName.pensize(5)

houseName.forward(60)

houseName.left(90)

houseName.forward(80)

houseName.left(60)

```
houseName.forward(35)
houseName.left(60)
houseName.forward(35)
houseName.left(60)
houseName.forward(80)
houseName.left(90)
houseName.forward(20)
houseName.end_fill()
#Door
houseName.color("red")
houseName.left(90)
houseName.forward(25)
houseName.right(90)
houseName.forward(20)
houseName.right(90)
houseName.forward(25)
```

#Draw a tree

```
def drawTree(tree, x, y):
```

```
    #Trunk
    tree.penup()
    tree.setpos(x, y)
    tree.pendown()
    tree.color("Brown")
    tree.pensize(5)
    tree.left(90)
    tree.forward(35)
    #Top
    tree.begin_fill()
    tree.color("green")
    tree.right(90)
    tree.circle(20)
```

```
tree.end_fill()
```

```
def main():
```

```
    #Jacks House
```

```
    jack = turtle.Turtle()
```

```
    jack.speed(10)
```

```
    drawHouse(jack)
```

```
    #Berry Tree 1
```

```
    berry1 = turtle.Turtle()
```

```
    drawTree(berry1, 100, 0)
```

```
    #Berry Tree 2
```

```
    berry2 = turtle.Turtle()
```

```
    drawTree(berry2, -35, 0)
```

```
    #Artwork Name
```

```
    print "Jack's House(in low quality:L)"
```

```
main()
```

Part Three: Complete the Post Mortem Review (PMR). Write thoughtful two to three sentence responses to all the questions in the PMR chart.

Review Question	Response
What was the purpose of your program?	The purpose of my program was to draw a house and trees with turtle graphics. Functions were used to make the program simpler by defining a tree and house, then using those functions to put multiple trees without having to add many more lines of code.
How could your program be useful in the real world?	My program could be useful in the real world to show a basic picture of new houses that will be built in a neighborhood. It could be modified to show different house models based on the model name given (input).

What is a problem you ran into and how did you fix it?	One problem I ran into was that my functions were not working at first. I fixed this by adding the (jack) turtle for house and the other two berry trees I tried using the functions without replacing the changing variable.
Describe one thing you would do differently the next time you write a program.	The next time i write a program I would combine more elements of python I have learned together. I would add input to change the color of the turtle graphics and add loops.