Tutorial

CPSC 217

Function

- What is a function?
 - A named set of statements
 - a function should perform a clearly defined specific Functions
 - May take parameters (Passing values to the function)
 - May return values
- General form: Optional

 def functionName(parameters):
 body

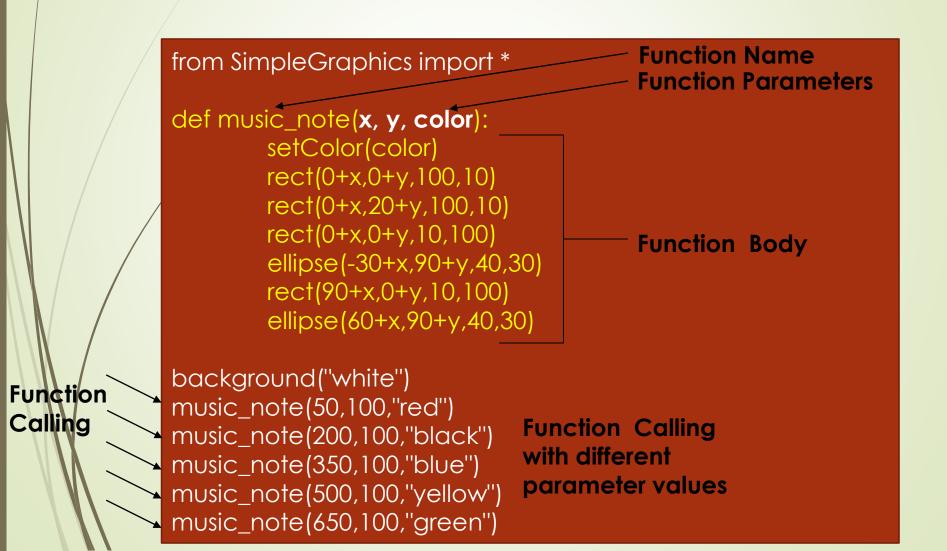
 return values ← Optional

Task 01:

- Write a program that draw the following 5 music notes using simple graphics.
 - You must define a function to draw a single music note.



Task 01: Solution



Best Approach

```
from SimpleGraphics import *
music_note(x, y, color):
        setColor(color)
        rect(0+x,0+y,100,10)
        rect(0+x,20+y,100,10)
        rect(0+x,0+y,10,100)
        ellipse(-30+x,90+y,40,30)
        rect(90+x,0+y,10,100)
        ellipse(60+x,90+y,40,30)
def main():
        background("white")
        music_note(50,100,"red")
        music_note(200,100,"black")
        music_note(350,100,"blue")
        music_note(500,100,"yellow")
        music_note(650,100,"green")
main()
```

Function Documentation

- Function documentation is very important for a Function.
- Function header documentation:
 - Say about its purpose (What it does)
 - Briefly describe the parameters
 - What it will return.

 Detail Documentation is not necessary for Main function.

Task 1 solution with proper documentation

```
from SimpleGraphics import *
#Definition: Draw a music note into a target location with desire color
#@param x: x coordinate of the location
#@param y: y coordinate of the location
#@param color: Desire color name
def music note(x, y, color):
         setColor(color)
         rect(0+x,0+y,100,10)
         rect(0+x,20+y,100,10)
         rect(0+x,0+y,10,100)
         ellipse(-30+x,90+y,40,30)
         rect(90+x,0+y,10,100)
         ellipse(60+x,90+y,40,30)
# Main function: Your program starts from here.
def main():
         background("white")
         music_note(50,100,"red")
         music note(200,100,"black")
         music_note(350,100,"blue")
         music note (500, 100, "yellow")
         music_note(650,100,"green")
```

main()

My PPT slides

You can find my created PPT slides at the following link:

https://sites.google.com/site/samicsemist/cpsc217win16