

Name : Niraj Thanki SID : 19376 CLASS : CS531

Face.py

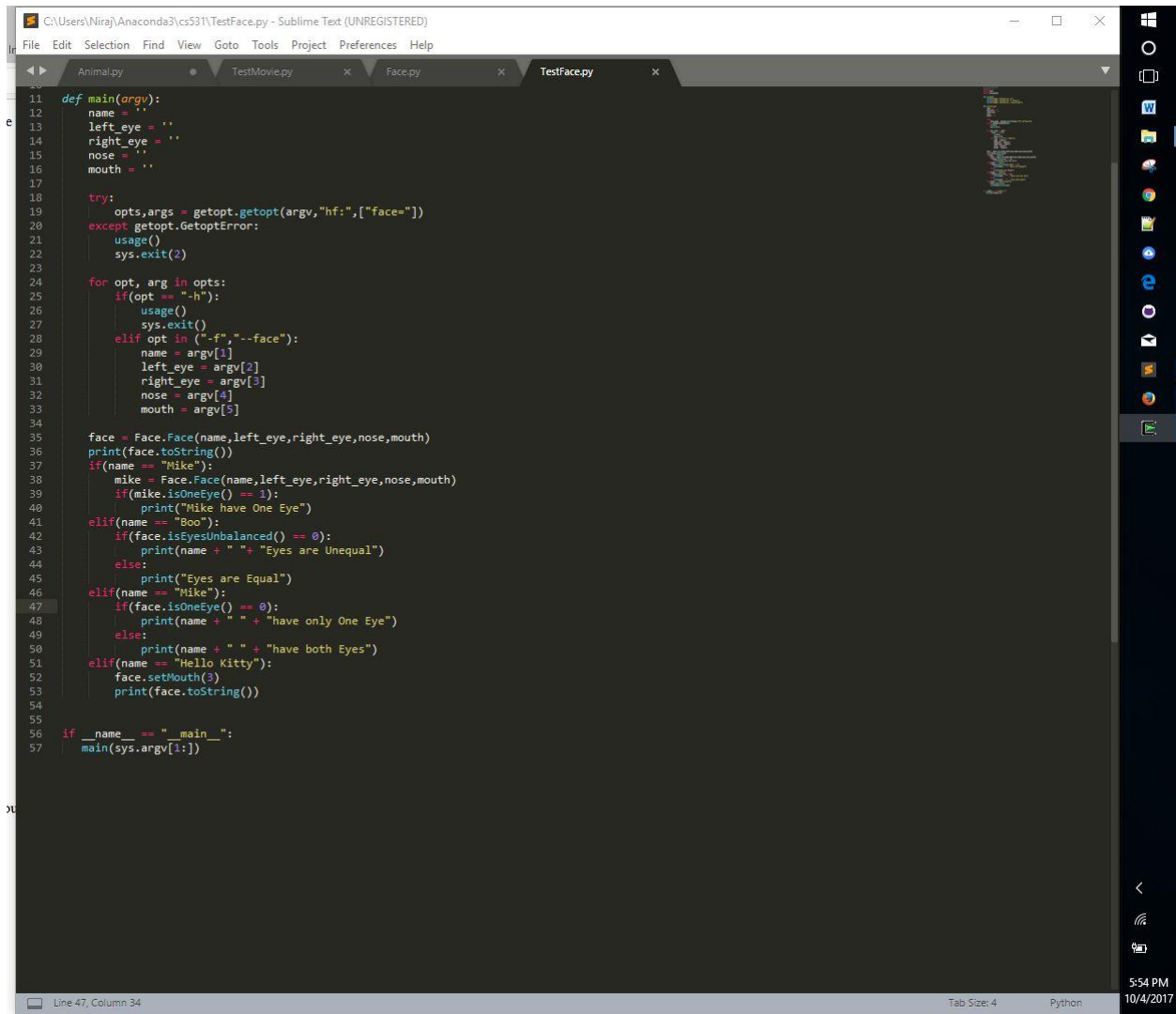
```
C:\Users\Niraj\Anaconda3\cs531\Face.py - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

Animal.py TestMovie.py Face.py TestFace.py

1  #!/usr/bin/python
2  # Face.py
3
4  import sys, getopt
5
6  class Face:
7      #####
8      # Helping function
9      #####
10     def __pi(self,s):
11         return (s)
12
13     #####
14     # Manager function
15     #####
16     # Including a default contructor
17     def __init__(self,name,left_eye,right_eye,nose,mouth):
18         self.__name = name
19         self.__left_eye = left_eye
20         self.__right_eye = right_eye
21         self.__nose = nose
22         self.__mouth = mouth
23     def __del__(self):
24         pass
25
26     #####
27     # Access function
28     #####
29     def getName(self):
30         return self.__name
31     def setName(self, name):
32         self.__name = name
33     def getLeftEye(self):
34         return self.__left_eye
35     def setLeftEye(self, left_eye):
36         self.__left_eye = left_eye
37     def getRightEye(self):
38         return self.__right_eye
39     def setRightEye(self, right_eye):
40         self.__right_eye = right_eye
41     def getNose(self):
42         return self.__nose
43     def setNose(self, nose):
44         self.__nose = nose
45     def getMouth(self):
46         return self.__mouth
47     def setMouth(self, mouth):
48         self.__mouth = mouth
49     def isBigMouth(self):
50         return self.__mouth > 30
51     def isEyesUnbalanced(self):
52         if(self.__left_eye != self.__right_eye):
53             return 0
54     def isOneEye(self):
55         if(self.__right_eye == 0 or self.__left_eye == 0):
56             return 0
57
58     #####
59     # Implementor function
60     #####
61     def toString(self):
62         return ("Name=" + str(self.__name) + "\n" +
63             "left_eye=" + str(self.__left_eye) + "\n" +
64             "right_eye=" + str(self.__right_eye) + "\n" +
65             "nose=" + str(self.__nose) + "\n" +
66             "mouth=" + str(self.__mouth) + "\n")
67
68 #####
69 # Main function
70 #####
71 def main():
72     # Create an object of Face class
73     face = Face("Niraj", "O", "O", "N", "M")
74     # Print the object
75     print(face.toString())
76
77 #####
78 # Driver code
79 #####
80 if __name__ == '__main__':
81     main()
82
83 #####
84 # End of the program
85 #####
```

Line 1, Column 1 Spaces: 4 Python 5:45 PM 10/4/2017

TestFace.py



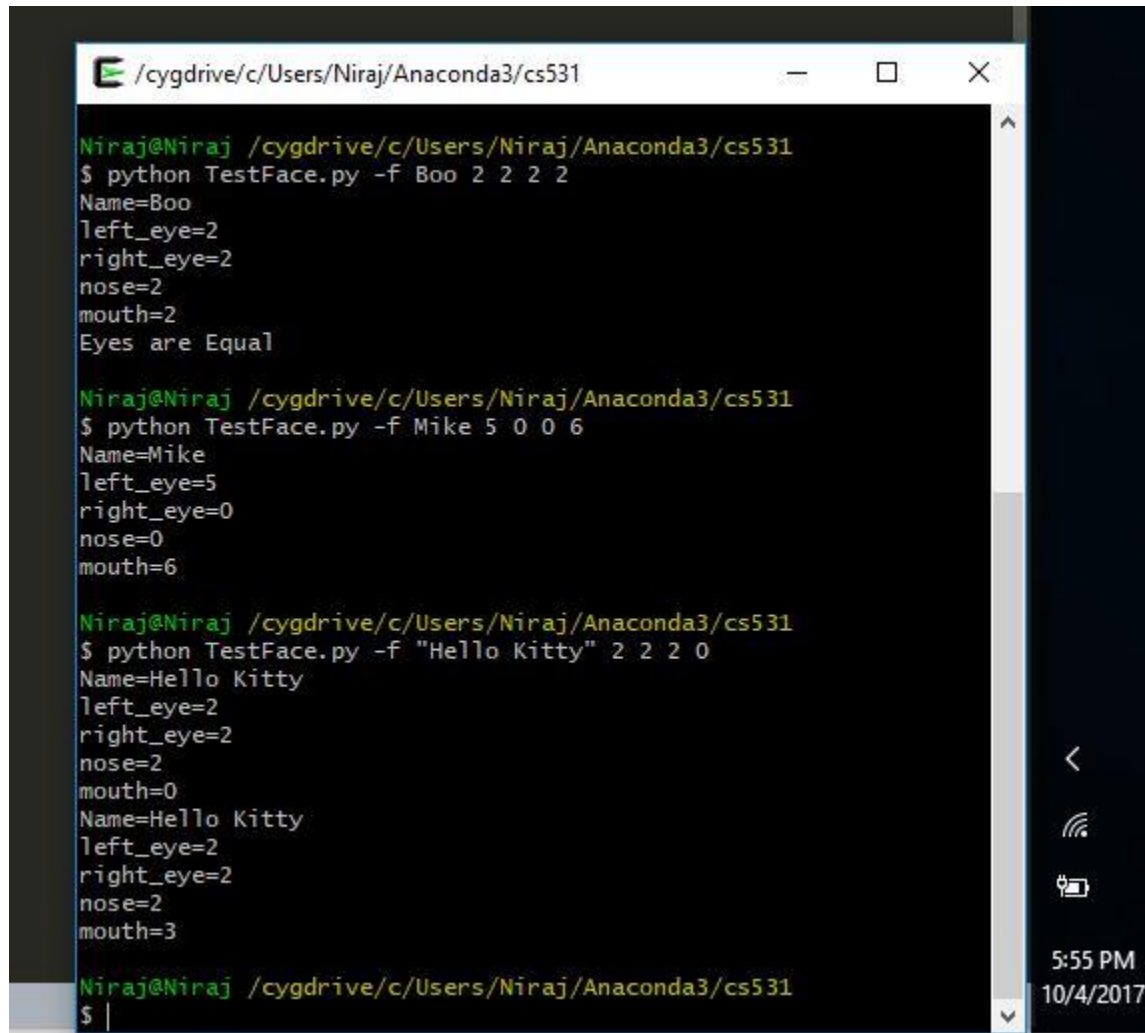
```
C:\Users\Niraj\Anaconda3\cs531\TestFace.py - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

Animal.py x TestMovie.py x Face.py x TestFace.py x

11 def main(argv):
12     name = ''
13     left_eye = ''
14     right_eye = ''
15     nose = ''
16     mouth = ''
17
18     try:
19         opts, args = getopt.getopt(argv, "hf:", ["face="])
20     except getopt.GetoptError:
21         usage()
22         sys.exit(2)
23
24     for opt, arg in opts:
25         if opt == "-h":
26             usage()
27             sys.exit()
28         elif opt in ("-f", "--face"):
29             name = argv[1]
30             left_eye = argv[2]
31             right_eye = argv[3]
32             nose = argv[4]
33             mouth = argv[5]
34
35     face = Face.Face(name, left_eye, right_eye, nose, mouth)
36     print(face.toString())
37     if name == "Mike":
38         mike = Face.Face(name, left_eye, right_eye, nose, mouth)
39         if (mike.isOneEye() == 1):
40             print("Mike have One Eye")
41     elif name == "Boo":
42         if (face.isEyesUnbalanced() == 0):
43             print(name + " " + "Eyes are Unequal")
44         else:
45             print("Eyes are Equal")
46     elif name == "Mike":
47         if (face.isOneEye() == 0):
48             print(name + " " + "have only One Eye")
49         else:
50             print(name + " " + "have both Eyes")
51     elif name == "Hello Kitty":
52         face.setMouth(3)
53         print(face.toString())
54
55
56 if __name__ == "__main__":
57     main(sys.argv[1:])

Line 47, Column 34
Tab Size: 4
Python
5:54 PM
10/4/2017
```

OutPut :



```
/cygdrive/c/Users/Niraj/Anaconda3/cs531

Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531
$ python TestFace.py -f Boo 2 2 2 2
Name=Boo
left_eye=2
right_eye=2
nose=2
mouth=2
Eyes are Equal

Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531
$ python TestFace.py -f Mike 5 0 0 6
Name=Mike
left_eye=5
right_eye=0
nose=0
mouth=6

Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531
$ python TestFace.py -f "Hello Kitty" 2 2 2 0
Name=Hello Kitty
left_eye=2
right_eye=2
nose=2
mouth=0
Name=Hello Kitty
left_eye=2
right_eye=2
nose=2
mouth=3

Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531
$ |
```

5:55 PM
10/4/2017

Source Code :

Face.py

```
#!/usr/bin/python
```

```
# Face.py
```

```
import sys, getopt
```

```
class Face:
```

```
#####
```

```
# Helping function
```

```
#####
```

```
def __pi(self,s):
```

```
    return (s)
```

```
#####
```

```
# Manager function
```

```
#####
```

```
# Including a default contrutctor
```

```
def __init__(self,name,left_eye,right_eye,nose,mouth):
```

```
    self.__name = name
```

```
    self.__left_eye = left_eye
```

```
    self.__right_eye = right_eye
```

```
    self.__nose = nose
```

```
    self.__mouth = mouth
```

```
def __del__(self):  
    pass  
  
#####  
# Access function  
#####  
def getName(self):  
    return self.__name  
def setName(self, name):  
    self.__name = name  
def getLeftEye(self):  
    return self.__left_eye  
def setLeftEye(self, left_eye):  
    self.__left_eye = left_eye  
def getRightEye(self):  
    return self.__right_eye  
def setRightEye(self, right_eye):  
    self.__left_eye = right_eye  
def getNose(self):  
    return self.__nose  
def setNose(self, nose):  
    self.__nose = nose  
def getMouth(self):  
    return self.__mouth  
def setMouth(self, mouth):
```

```

        self.__mouth = mouth

def isBigMouth(self):

    return self.__mouth > 30

def isEyesUnbalanced(self):

    if(self.__left_eye != self.__right_eye):

        return 0

def isOneEye(self):

    if(self.__right_eye == 0 or self.__left_eye == 0):

        return 0


#####

# Implementor function

#####

def toString(self):

    return ("Name=" + str(self.__name) + "\n" +

            "left_eye=" + str(self.__left_eye) + "\n" +

            "right_eye=" + str(self.__right_eye) + "\n" +

            "nose=" + str(self.__nose) + "\n" +

            "mouth=" + str(self.__mouth))

def blind(self):

    self.__left_eye = 0

    self.__right_eye = 0

def removeMouth(self):

    remove(self.__mouth)

```

```
return 0
```

TestFace.py

```
#!/usr/bin/python
```

```
#TestFace.py
```

```
import Face
```

```
import sys,getopt
```

```
def usage():
```

```
    print("Usage: TestFace.py -h")
```

```
    print("Usage: TestFace.py -f <face>")
```

```
    print("Usage: TestFace.py --face=<face>")
```

```
def main(argv):
```

```
    name = "
```

```
    left_eye = "
```

```
    right_eye = "
```

```
    nose = "
```

```
    mouth = "
```

```
    try:
```

```
        opts,args = getopt.getopt(argv,"hf:",["face="])
```

```
    except getopt.GetoptError:
```

```
        usage()
```

```
        sys.exit(2)
```

```

for opt, arg in opts:

    if(opt == "-h"):

        usage()

        sys.exit()

    elif opt in ("-f", "--face"):

        name = argv[1]

        left_eye = argv[2]

        right_eye = argv[3]

        nose = argv[4]

        mouth = argv[5]

face = Face.Face(name,left_eye,right_eye,nose,mouth)

print(face.toString())

if(name == "Mike"):

    mike = Face.Face(name,left_eye,right_eye,nose,mouth)

    if(mike.isOneEye() == 1):

        print("Mike have One Eye")

elif(name == "Boo"):

    if(face.isEyesUnbalanced() == 0):

        print(name + " " + "Eyes are Unequal")

    else:

        print("Eyes are Equal")

elif(name == "Mike"):

    if(face.isOneEye() == 0):

```

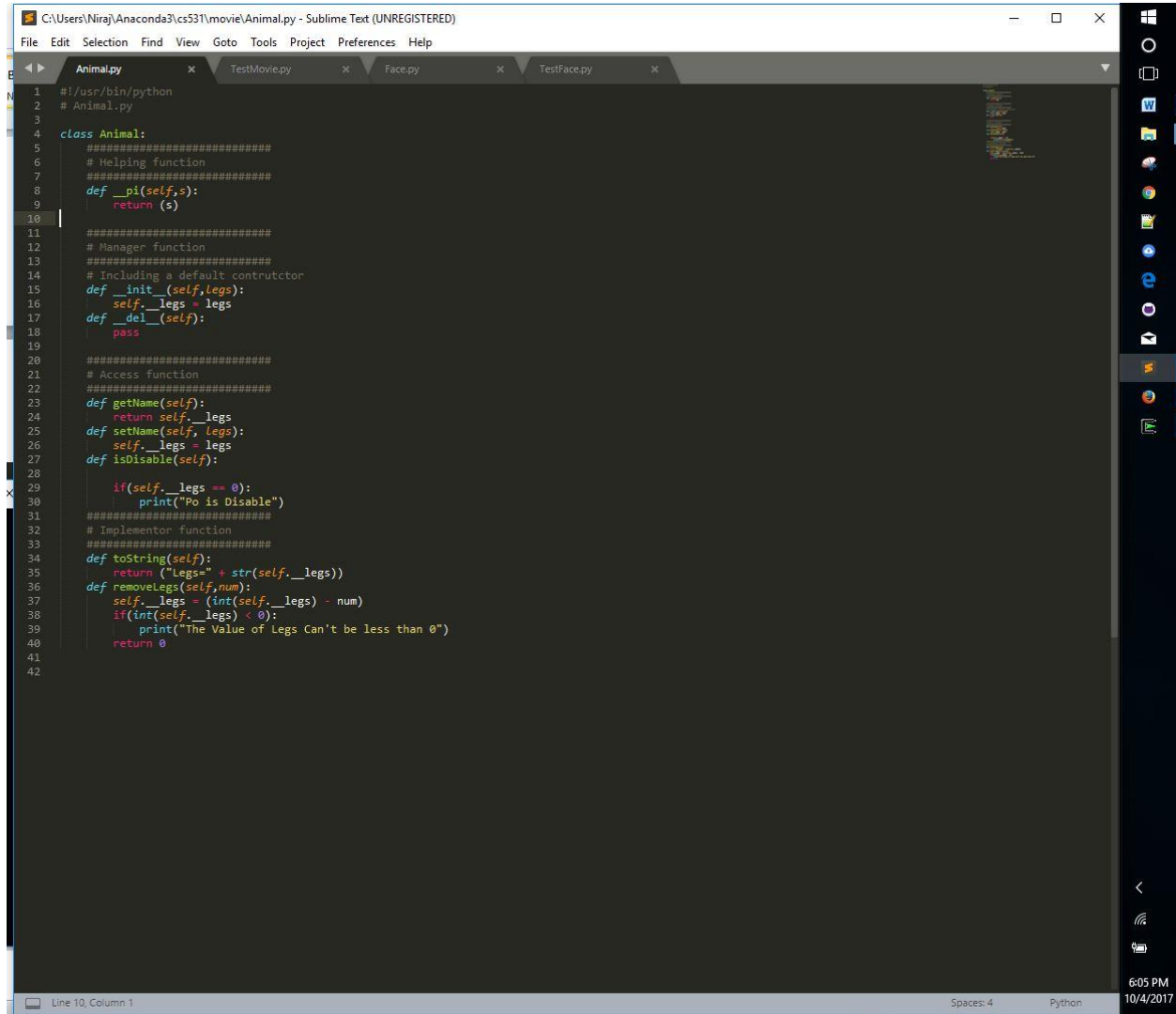


```
        print(name + " " + "have only One Eye")
    else:
        print(name + " " + "have both Eyes")
elif(name == "Hello Kitty"):
    face.setMouth(3)
    print(face.toString())

if __name__ == "__main__":
    main(sys.argv[1:])
```

Q-41

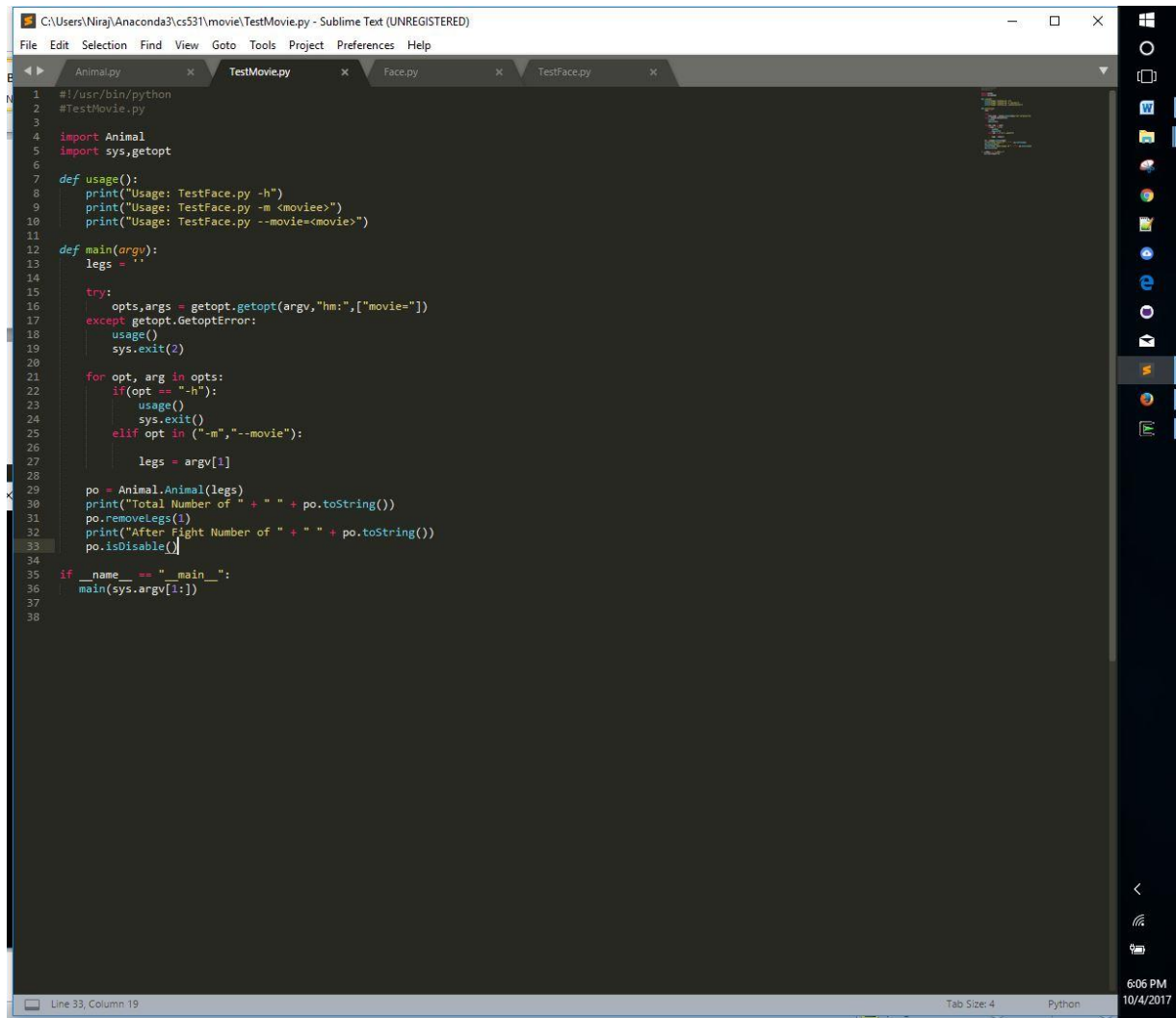
Animal.py



```
C:\Users\Niraj\Anaconda3\cs531\movie\Animal.py - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

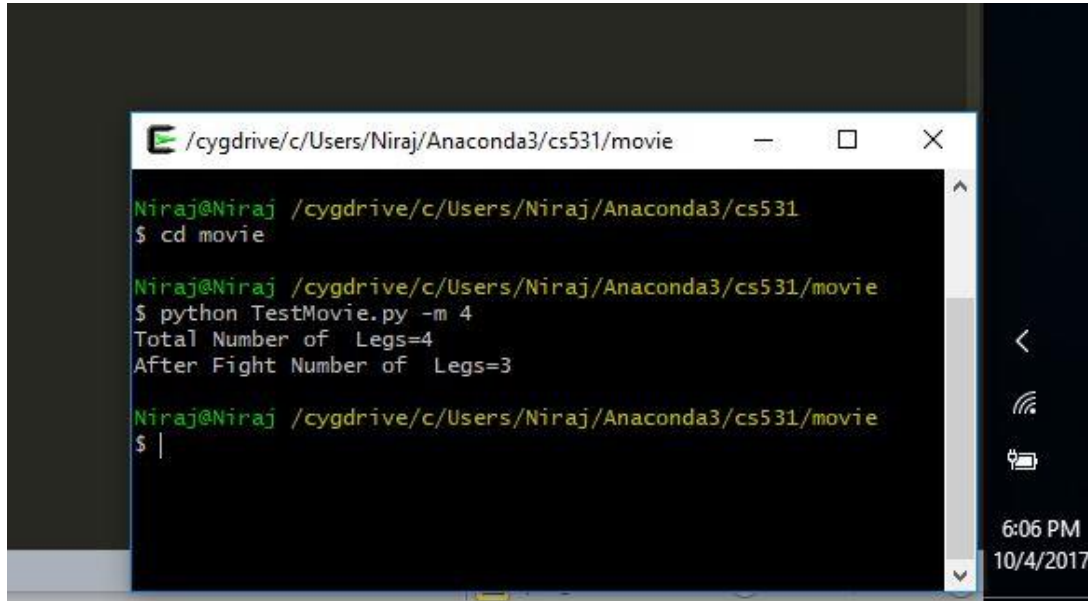
Animal.py x TestMovie.py x Face.py x TestFace.py x
1  #!/usr/bin/python
2  # Animal.py
3
4  class Animal:
5      #####
6      # Helping function
7      #####
8      def __pi(self,s):
9          return (s)
10
11      #####
12      # Manager function
13      #####
14      # Including a default constructor
15      def __init__(self,legs):
16          self.__legs = legs
17      def __del__(self):
18          pass
19
20      #####
21      # Access function
22      #####
23      def getName(self):
24          return self.__legs
25      def setName(self, legs):
26          self.__legs = legs
27      def isDisable(self):
28
29          if(self.__legs == 0):
30              print("Po is Disable")
31      #####
32      # Implementor function
33      #####
34      def toString(self):
35          return ("Legs=" + str(self.__legs))
36      def removeLegs(self,num):
37          self.__legs = (int(self.__legs) - num)
38          if(int(self.__legs) < 0):
39              print("The Value of Legs Can't be less than 0")
40          return 0
41
42
Line 10, Column 1
Spaces: 4 Python
6:05 PM
10/4/2017
```

TestMovie.py



```
1 #!/usr/bin/python
2 #TestMovie.py
3
4 import Animal
5 import sys,getopt
6
7 def usage():
8     print("Usage: TestFace.py -h")
9     print("Usage: TestFace.py -m <movie>")
10    print("Usage: TestFace.py --movie=<movie>")
11
12 def main(argv):
13     legs = ''
14
15     try:
16         opts,args = getopt.getopt(argv,"hm:",["movie="])
17     except getopt.GetoptError:
18         usage()
19         sys.exit(2)
20
21     for opt, arg in opts:
22         if opt == "-h":
23             usage()
24             sys.exit()
25         elif opt in ("-m", "--movie"):
26             legs = arg[1]
27
28     po = Animal.Animal(legs)
29     print("Total Number of " + " " + po.toString())
30     po.removeLegs(1)
31     print("After Fight Number of " + " " + po.toString())
32     po.isDisable()
33
34
35 if __name__ == "__main__":
36     main(sys.argv[1:])
37
38
```

Output :

A screenshot of a terminal window on a Windows system. The window title is "/cygdrive/c/Users/Niraj/Anaconda3/cs531/movie". The prompt is "Niraj@Niraj". The user enters "\$ cd movie". The prompt changes to "Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531/movie". The user enters "\$ python TestMovie.py -m 4". The output is "Total Number of Legs=4" followed by "After Fight Number of Legs=3". The prompt returns to "Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531/movie" with a cursor on the next line. The system tray on the right shows the time "6:06 PM" and date "10/4/2017".

```
/cygdrive/c/Users/Niraj/Anaconda3/cs531/movie
Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531
$ cd movie

Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531/movie
$ python TestMovie.py -m 4
Total Number of Legs=4
After Fight Number of Legs=3

Niraj@Niraj /cygdrive/c/Users/Niraj/Anaconda3/cs531/movie
$ |
```

Source Code :

Animal.py

```
#!/usr/bin/python
```

```
# Animal.py
```

```
class Animal:
```

```
#####
```

```
# Helping function
```

```
#####
```

```
def __pi(self,s):
```

```
    return (s)
```

```
#####

# Manager function

#####

# Including a default contrutctor

def __init__(self,legs):

    self.__legs = legs

def __del__(self):

    pass

#####

# Access function

#####

def getName(self):

    return self.__legs

def setName(self, legs):

    self.__legs = legs

def isDisable(self):

    if(self.__legs == 0):

        print("Po is Disable")

#####

# Implementor function

#####

def toString(self):

    return ("Legs=" + str(self.__legs))
```

```
def removeLegs(self,num):  
  
    self.__legs = (int(self.__legs) - num)  
  
    if(int(self.__legs) < 0):  
  
        print("The Value of Legs Can't be less than 0")  
  
    return 0
```

TestMovie.py

```
#!/usr/bin/python
```

```
#TestMovie.py
```

```
import Animal
```

```
import sys,getopt
```

```
def usage():  
  
    print("Usage: TestFace.py -h")  
  
    print("Usage: TestFace.py -m <movie>")  
  
    print("Usage: TestFace.py --movie=<movie>")
```

```
def main(argv):  
  
    legs = "  
  
    try:  
  
        opts,args = getopt.getopt(argv,"hm:",["movie="])  
  
    except getopt.GetoptError:  
  
        usage()
```

```
sys.exit(2)
```

```
for opt, arg in opts:
```

```
    if(opt == "-h"):
```

```
        usage()
```

```
        sys.exit()
```

```
    elif opt in ("-m", "--movie"):
```

```
        legs = argv[1]
```

```
po = Animal.Animal(legs)
```

```
print("Total Number of " + " " + po.toString())
```

```
po.removeLegs(1)
```

```
print("After Fight Number of " + " " + po.toString())
```

```
po.isDisable()
```

```
if __name__ == "__main__":
```

```
    main(sys.argv[1:])
```

TestMovie.py

```
#!/usr/bin/python
```

```
#TestMovie.py
```

```
import Animal
```

```
import sys, getopt
```

```

def usage():

    print("Usage: TestFace.py -h")

    print("Usage: TestFace.py -m <movie>")

    print("Usage: TestFace.py --movie=<movie>")


def main(argv):

    legs = "

try:

    opts,args = getopt.getopt(argv,"hm:",["movie="])

except getopt.GetoptError:

    usage()

    sys.exit(2)

for opt, arg in opts:

    if(opt == "-h"):

        usage()

        sys.exit()

    elif opt in ("-m", "--movie"):

        legs = argv[1]

po = Animal.Animal(legs)

print("Total Number of " + " " + po.toString())

```



```
po.removeLegs(1)

print("After Fight Number of " + " " + po.toString())

po.isDisable()
```

```
if __name__ == "__main__":
    main(sys.argv[1:])
```