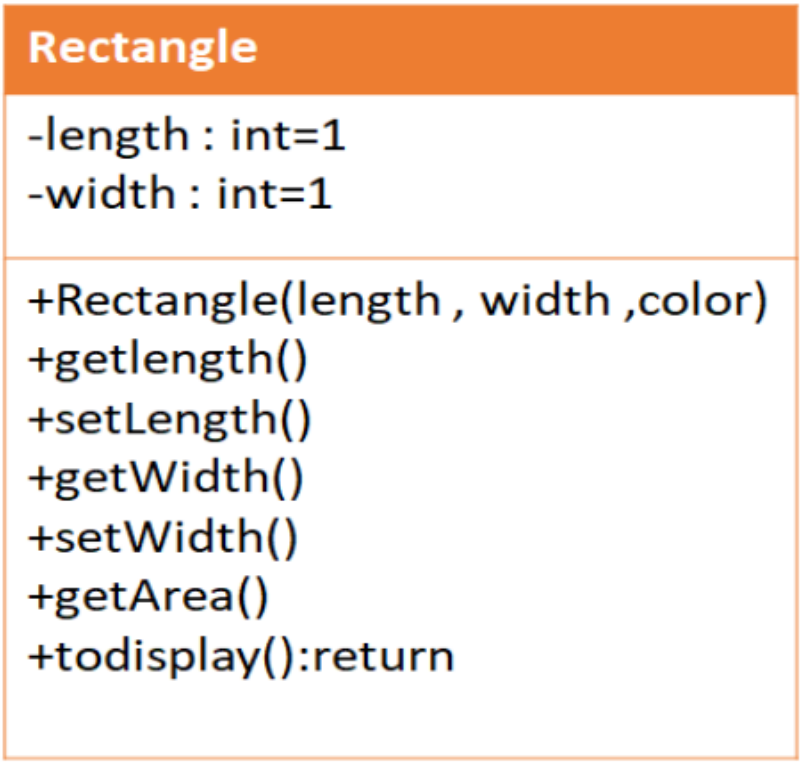
i)Develop a python program for given class diagram ,



ii) Write a TestCase class for the below class diagram,

File name:mt

```
li=[]
class Shapes:
    def __init__(self,wi,leng):
        self.width=wi
        self.lenght=leng
    def getlen(self):
        return self.lenght
    def getwidth(self):
        return self.width
    def cal(self):
        self.area=self.width*self.lenght
    def getarea(self):
        self.area=str(self.area)
        return self.area
    def disp(self):
        li.append(self.getarea())
x=int(input("Enter width"))
y=int(input("Enter lenght"))
obj=Shapes(x,y)
obj.cal()
```

obj.disp()

File name :mt1.py

```
import unittest
import mt
class testcases1(unittest.TestCase):
    def test(self):
        res=mt.li
        self.assertEqual(res,['2'])
        print("Test case passed")
if __name__=="__main__":
    unittest.main()
```

Output: