EXERCISE: 13

DATE: 20.11.2020

AIM:

To write a Python program to implement the class diagram.

PROGRAM:

```
class Apparel:
    counter=100
    def __init__(self,price,item_type):
        Apparel.counter+=1
        self.__item_id=item_type[0]+str(Apparel.counter)
        self.__price=price
        self.__item_type=item_type

    def calculate_price(self):
        self.__price+=self.__price*0.05

    def get_item_id(self):
        return self.__item_id

    def get_price(self):
        return self.__price

    def get_item_type(self):
        return self.__item_type

    def set_price(self,price):
        self.__price=price
        return self.__price
```

```
class Cotton(Apparel):
    def __init__(self,price,discount):
        super().__init__(price,'Cotton')
        self.__discount=discount

    def calculate_price(self):
        super().calculate_price()
        price=self.get_price()
        price-=price*(self.__discount/100)
        price+=price*0.05
        self.set_price(price)
        return price

    def get_discount(self):
        return self.__discount

class Silk(Apparel):
    def __init__(self,price):
        super().__init__(price,'Silk')
        self.__points=None

    def calculate_price(self):
        super().calculate_price()
        if(self.get_price()>10000):
            self.__points=10
        else:
            self.__points=3
        return self.set_price(self.get_price()+(self.get_price()*0.1))
```

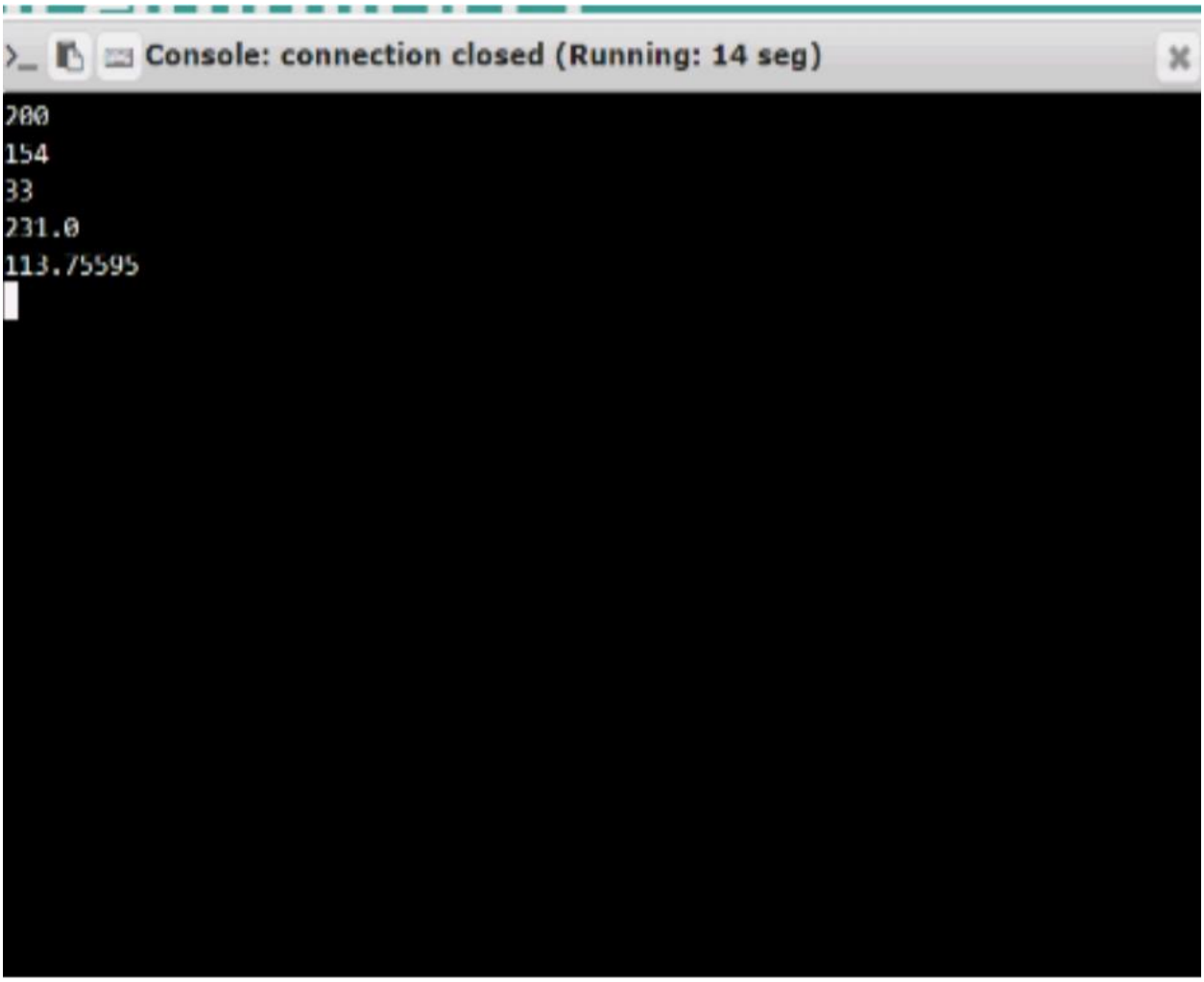
```
    def get_points(self):
        return self.__points


silk=int(input())
cotton=int(input())
discount=int(input())
a=Silk(silk)
print(a.calculate_price())
b=Cotton(cotton,discount)
print(b.calculate_price())
```

LINK:

http://103.53.53.18/mod/vpl/forms/submissionview.php?id=328&userid=1690

OUTPUT:



RESULT:

The output for the given class diagram is obtained successfully.