**Exercise No: 13**

**Date: 23-11-2020**

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**AIM:** To Write a python program to implement the class diagram for an apparel shop wants to manage the items which it sells.25 min.

**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\_price(self):

return self.price

def set\_price(self, price):

self.price = price

return self.price

def get\_item\_id(self):

return self.item\_id

def get\_item\_type(self):

return self.item\_type

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:**

[Python Programming Laboratory Exercise 13 Edit](http://103.53.53.18/mod/vpl/forms/edit.php?id=328&userid=1802)

**OUTPUT:**

100

50

5

115.5

52.36875

**RESULT:** Thus, the python program to implement the class diagram for an apparel shop wants to manage the items which it sells.25 min is executed.