

# CMPSCI4250 Project4

11/3/6

```
1 class Product:
2     def __init__(self, name, price, discountPercent):
3         self.__name = name
4         self.__price = price
5         self.__discountPercent = discountPercent
6
7     def getDiscountAmount(self):
8         return self.__price * self.__discountPercent
9
10    def getDiscountPrice(self):
11        return self.__price - self.getDiscountAmount()
12
13    def printDescription(self):
14        return "name: " + self.__name + ", price: " + str(self.__price) + ", discountPercent: "
15
16 class Book(Product):
17     def __init__(self, author, name, price, discountPercent):
18         self.__author = author
19         Product.__init__(self, name, price, discountPercent)
20
21     def printDescription(self):
22         return "author: " + self.__author + ", " + Product.printDescription(self)
23
24 class Movie(Product):
25     def __init__(self, year, name, price, discountPercent):
26         self.__year = year
27         Product.__init__(self, name, price, discountPercent)
28
29     def printDescription(self):
30         return "year: " + str(self.__year) + ", " + Product.printDescription(self)
31
32 product = Product("test", 10, 0.1)
33 book = Book("me", "test1", 12, 0.5)
34 movie = Movie(2019, "test2", 100, 0.2)
35
36 print("Product description - " + product.printDescription())
37 print("Book description - " + book.printDescription())
38 print("Movie description - " + movie.printDescription())
```

```
Product description - name: test, price: 10, discountPercent: 0.1, discountAmount: 1.0, discountPrice: 9.0
Book description - author: me, name: test1, price: 12, discountPercent: 0.5, discountAmount: 6.0, discountPrice: 6.0
Movie description - year: 2019, name: test2, price: 100, discountPercent: 0.2, discountAmount: 20.0, discountPrice: 80.0
```