

PRM – Oct/Nov 2020 – P22

- 1 (a) **Data structure:** Array
Name: Item Code
Data Type: String
Usage: To store the item codes for each indexed item.

Data structure: Array
Name: Description
Data Type: String
Usage: To store the descriptions for each item.

Data structure: Array
Name: Price
Data Type: Real
Usage: To store the price for each indexed item.

[4]

(b) The following is an example solution. There can be many other correct solutions to this question.

Variable name: moreChoice
Data type: Boolean
Use: To flag whether another option is to be selected.

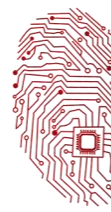
[3]

(c)

- A counter kept incrementing every time an item is chosen
- If the counter value is 1, apply a 5% discount to the final price.
E.g. `IF itemCount = 1 THEN`
 `finalPrice = finalPrice - (0.05 * finalPrice)`
 `ENDIF`
- If the counter value is 2 or more, apply a 10% discount to the final price.
E.g. `IF itemCount >= 2 THEN`
 `finalPrice = finalPrice - (0.1 * finalPrice)`
 `ENDIF`

[3]





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(d) The following is an example solution. There are other possible solutions.

Pseudocode:

```
OUTPUT "Item code "
OUTPUT "Item description      "
OUTPUT "Item price "
OUTPUT "Category"
OUTPUT "-----"
```

```
FOR x = 1 TO 8
```

```
    OUTPUT ItemCode[x] + Space(9)
```

```
    OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))
```

```
    myPrice = Price[x]
```

```
    OUTPUT myPrice + Space(12 - LEN(myPrice))
```

```
    OUTPUT Category[x]
```

```
NEXT
```

```
OUTPUT "New sale initiated - Default basic set of components costing $200 is added."
```

```
OUTPUT "One case, one RAM AND one Main Hard Disk Drive is required TO be added."
```

```
WHILE ItemID <> "A1" AND ItemID <> "A2"
```

```
    OUTPUT "Chose a Case Item Code: "
```

```
    INPUT ItemID
```

```
    IF ItemID <> "A1" OR ItemID <> "A2" THEN
```

```
        OUTPUT "Chose either A1 OR A2."
```

```
    END IF
```

```
END WHILE
```

```
IF ItemID = "A1" THEN
```

```
    newSaleItem[1] = ItemDescription[1]
```

```
    newSaleItemPrice[1] = Price[1]
```

```
END IF
```

```
IF ItemID = "A2" THEN
```

```
    newSaleItem[1] = ItemDescription[2]
```

```
    newSaleItemPrice[1] = Price[2]
```

```
END IF
```

```
OUTPUT "Item code "
```

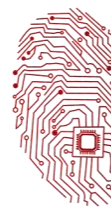
```
OUTPUT "Item description      "
```

```
OUTPUT "Item price "
```

```
OUTPUT "Category"
```

```
OUTPUT "-----"
```





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```
FOR x = 1 TO 8
  OUTPUT ItemCode[x] + Space(9)
  OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))
  myPrice = Price[x]
  OUTPUT myPrice + Space(12 - LEN(myPrice))
  OUTPUT Category[x]
NEXT

WHILE ItemID <> "B1" AND ItemID <> "B2" AND ItemID <> "B3"
  OUTPUT "Chose a RAM Item Code: "
  INPUT ItemID

  IF ItemID <> "B1" OR ItemID <> "B2" OR ItemID <> "B3" THEN
    OUTPUT "Chose either B1, B2 OR B3."
  END IF
END WHILE

IF ItemID = "B1" THEN
  newSaleItem[2] = ItemDescription[3]
  newSaleItemPrice[2] = Price[3]
END IF

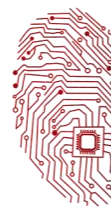
IF ItemID = "B2" THEN
  newSaleItem[2] = ItemDescription[4]
  newSaleItemPrice[2] = Price[4]
END IF

IF ItemID = "B3" THEN
  newSaleItem[2] = ItemDescription[4]
  newSaleItemPrice[2] = Price[4]
END IF

OUTPUT "Item code "
OUTPUT "Item description "
OUTPUT "Item price "
OUTPUT "Category"
OUTPUT "-----"

FOR x = 1 TO 8
  OUTPUT ItemCode[x] + Space(9)
  OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))
  myPrice = Price[x]
  OUTPUT myPrice + Space(12 - LEN(myPrice))
```





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OUTPUT Category[x]

NEXT

WHILE ItemID <> "C1" AND ItemID <> "C2" AND ItemID <> "C3"

OUTPUT "Chose a Main Hard Disk Drive Item Code: "

INPUT ItemID

IF ItemID <> "C1" OR ItemID <> "C2" OR ItemID <> "C3" THEN

OUTPUT "Chose either C1, C2 OR C3."

END IF

END WHILE

IF ItemID = "C1" THEN

newSaleItem[3] = ItemDescription[6]

newSaleItemPrice[3] = Price[6]

END IF

IF ItemID = "C2" THEN

newSaleItem[3] = ItemDescription[7]

newSaleItemPrice[3] = Price[7]

END IF

IF ItemID = "C3" THEN

newSaleItem[3] = ItemDescription[8]

newSaleItemPrice[3] = Price[8]

END IF

itemCount = 3

ComputerPrice = 200

OUTPUT "Item code "

OUTPUT "Item description "

OUTPUT "Item price "

OUTPUT "Category"

OUTPUT "-----"

FOR x = 1 TO 8

OUTPUT ItemCode[x] + Space(9)

OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))

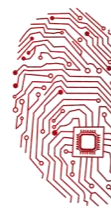
myPrice = Price[x]

OUTPUT myPrice + Space(12 - LEN(myPrice))

OUTPUT Category[x]

NEXT





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OUTPUT "Basic set of components" + Space(17)

myPrice = 200

OUTPUT myPrice

OUTPUT "-----"

OUTPUT "Total price of the computer: " + ComputerPrice

Programming Language: VB

```
Console.Write("Item code  ")
```

```
Console.Write("Item description  ")
```

```
Console.Write("Item price  ")
```

```
Console.WriteLine("Category")
```

```
Console.WriteLine(StrDup(95, "-"))
```

```
For x = 1 To 8
```

```
    Console.Write(ItemCode(x) + Space(9))
```

```
    Console.Write(ItemDescription(x) & Space(40 - Len(ItemDescription(x))))
```

```
    myPrice = Format(Price(x), "#####.00")
```

```
    Console.Write(myPrice & Space(12 - Len(myPrice)))
```

```
    Console.WriteLine(Category(x))
```

```
Next
```

```
Console.WriteLine("New sale initiated - Default basic set of components costing $200 is added.")
```

```
Console.WriteLine("One case, one RAM and one Main Hard Disk Drive is required to be added.")
```

```
Console.Write("Item code  ")
```

```
Console.Write("Item description  ")
```

```
Console.Write("Item price  ")
```

```
Console.WriteLine("Category")
```

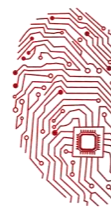
```
Console.WriteLine(StrDup(95, "-"))
```

```
For x = 1 To 2
```

```
    Console.Write(ItemCode(x) + Space(9))
```

```
    Console.Write(ItemDescription(x) & Space(40 - Len(ItemDescription(x))))
```





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```
myPrice = Format(Price(x), "#####.00")
Console.Write(myPrice & Space(12 - Len(myPrice)))
Console.WriteLine(Category(x))

Next
While ItemID <> "A1" And ItemID <> "A2"
    Console.Write("Chose a Case Item Code: ")
    ItemID = Console.ReadLine

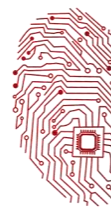
    If ItemID <> "A1" Or ItemID <> "A2" Then
        Console.WriteLine("Chose either A1 or A2.")
    End If
End While

If ItemID = "A1" Then
    newSaleItem(1) = ItemDescription(1)
    newSaleItemPrice(1) = Price(1)
End If

If ItemID = "A2" Then
    newSaleItem(1) = ItemDescription(2)
    newSaleItemPrice(1) = Price(2)
End If

Console.Write("Item code ")
Console.Write("Item description ")
Console.Write("Item price ")
Console.WriteLine("Category")
Console.WriteLine(StrDup(95, "-"))
For x = 3 To 5
    Console.Write(ItemCode(x) + Space(9))
    Console.Write(ItemDescription(x) & Space(40 - Len(ItemDescription(x))))
    myPrice = Format(Price(x), "#####.00")
    Console.Write(myPrice & Space(12 - Len(myPrice)))
    Console.WriteLine(Category(x))
Next
While ItemID <> "B1" And ItemID <> "B2" And ItemID <> "B3"
    Console.Write("Chose a RAM Item Code: ")
```





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```
ItemID = Console.ReadLine
```

```
If ItemID <> "B1" Or ItemID <> "B2" Or ItemID <> "B3" Then  
    Console.WriteLine("Chose either B1, B2 or B3.")
```

```
End If
```

```
End While
```

```
If ItemID = "B1" Then
```

```
    newSaleItem(2) = ItemDescription(3)
```

```
    newSaleItemPrice(2) = Price(3)
```

```
End If
```

```
If ItemID = "B2" Then
```

```
    newSaleItem(2) = ItemDescription(4)
```

```
    newSaleItemPrice(2) = Price(4)
```

```
End If
```

```
If ItemID = "B3" Then
```

```
    newSaleItem(2) = ItemDescription(4)
```

```
    newSaleItemPrice(2) = Price(5)
```

```
End If
```

```
Console.Write("Item code  ")
```

```
Console.Write("Item description  ")
```

```
Console.Write("Item price  ")
```

```
Console.WriteLine("Category")
```

```
Console.WriteLine(StrDup(95, "-"))
```

```
For x = 6 To 8
```

```
    Console.Write(ItemCode(x) + Space(9))
```

```
    Console.Write(ItemDescription(x) & Space(40 - Len(ItemDescription(x))))
```

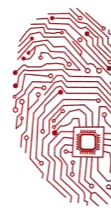
```
    myPrice = Format(Price(x), "#####.00")
```

```
    Console.Write(myPrice & Space(12 - Len(myPrice)))
```

```
    Console.WriteLine(Category(x))
```

```
Next
```





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```
While ItemID <> "C1" And ItemID <> "C2" And ItemID <> "C3"  
    Console.WriteLine("Chose a Main Hard Disk Drive Item Code: ")  
    ItemID = Console.ReadLine
```

```
    If ItemID <> "C1" Or ItemID <> "C2" Or ItemID <> "C3" Then  
        Console.WriteLine("Chose either C1, C2 or C3.")  
    End If  
End While
```

```
    If ItemID = "C1" Then  
        newSaleItem(3) = ItemDescription(6)  
        newSaleItemPrice(3) = Price(6)  
    End If
```

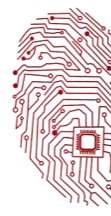
```
    If ItemID = "C2" Then  
        newSaleItem(3) = ItemDescription(7)  
        newSaleItemPrice(3) = Price(7)  
    End If
```

```
    If ItemID = "C3" Then  
        newSaleItem(3) = ItemDescription(8)  
        newSaleItemPrice(3) = Price(8)  
    End If  
    itemCount = 3
```

```
    Console.Clear()  
    ComputerPrice = 200  
    Console.WriteLine("Computer Invoice")  
    Console.WriteLine("Item description")  
    Console.WriteLine("Item price ")  
    Console.WriteLine(StrDup(50, "-"))
```

```
For x = 1 To 3  
    Console.WriteLine(newSaleItem(x) & Space(40 - Len(newSaleItem(x))))  
    myPrice = Format(newSaleItemPrice(x), "#####.00")
```





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```
Console.WriteLine(myPrice)
ComputerPrice = ComputerPrice + newSaleItemPrice(x)

Next

Console.Write("Basic set of components" & Space(17))
myPrice = Format(200, "#####.00")
Console.WriteLine(myPrice)

Console.WriteLine(StrDup(50, "-"))
Console.WriteLine("Total price of the computer: " & ComputerPrice)
Console.ReadKey()
```

Programming Language: Python

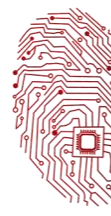
```
print("Item code    Item Description                                Item price  Category")

print("-" * 95)
for i in range(8):
    print(itemCode[i] + " " * 9 + itemDescription[i] + " " * (43 - len(itemDescription[i]))
+ "{}".format(price[i])
    + " " * (14 - len(str(price[i]))) + category[i])

print("")
print("")
print("New sale initiated - Default basic set of components costing $200 is added.")
print("One case, one RAM and one Main Hard Disk Drive is required to be added.")
print("")
print("")
print("Item code    Item Description                                Item price  Category")
print("-" * 95)
for i in range(2):
    print(itemCode[i] + " " * 9 + itemDescription[i] + " " * (43 - len(itemDescription[i]))
+ "{}".format(price[i])
    + " " * (14 - len(str(price[i]))) + category[i])

itemID = ""
```





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```
while itemID != "A1" and itemID != "A2":
    print("")
    itemID = input("Choose a Case Item Code: ")
    if itemID != "A1" and itemID != "A2":
        print("Choose either A1 or A2")

if itemID == "A1":
    newSaleItem[0] = itemDescription[0]
    newSaleItemPrice[0] = price[0]
elif itemID == "A2":
    newSaleItem[0] = itemDescription[1]
    newSaleItemPrice[0] = itemDescription[1]

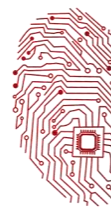
print("")
print("")
print("Item code      Item Description                                Item price  Category")
print("-" * 95)
for i in range(2, 5):
    print(itemCode[i] + " " * 9 + itemDescription[i] + " " * (43 - len(itemDescription[i]))
+ "{}".format(price[i])
        + " " * (14 - len(str(price[i]))) + category[i])

while itemID != "B1" and itemID != "B2" and itemID != "B3":
    itemID = input("Choose a RAM Item Code: ")

if itemID != "B1" and itemID != "B2" and itemID != "B3":
    print("Choose either B1, B2 or B3")

if itemID == "B1":
    newSaleItem[1] = itemDescription[2]
    newSaleItemPrice[1] = price[2]
elif itemID == "B2":
    newSaleItem[1] = itemDescription[3]
    newSaleItemPrice[1] = price[3]
elif itemID == "B3":
    newSaleItem[1] = itemDescription[4]
```





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```
newSaleItemPrice[1] = price[4]

print("")
print("")
print("Item code      Item Description                                Item price  Category")
print("-" * 95)
for i in range(5, 8):
    print(itemCode[i] + " " * 9 + itemDescription[i] + " " * (43 - len(itemDescription[i]))
+ "{}".format(price[i])
        + " " * (14 - len(str(price[i]))) + category[i])

while itemID != "C1" and itemID != "C2" and itemID != "C3":
    itemID = input("Chose a Main Hard Disk Drive Item Code: ")

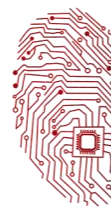
    if itemID != "C1" and itemID != "C2" and itemID != "C3":
        print("Choose either C1, C2 or C3")

if itemID == "C1":
    newSaleItem[2] = itemDescription[5]
    newSaleItemPrice[2] = price[5]
elif itemID == "C2":
    newSaleItem[2] = itemDescription[6]
    newSaleItemPrice[2] = price[6]
elif itemID == "C3":
    newSaleItem[2] = itemDescription[7]
    newSaleItemPrice[2] = price[7]

itemCount = 3

computerPrice = 200
print("")
print("Computer Invoice")
print("")
print("Item Description                                Item price")
print("-" * 50)
```





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```
for i in range(3):
    print(newSaleItem[i] + " " * (42 - len(newSaleItem[i])) + str(newSaleItemPrice[i]))
    computerPrice = computerPrice + newSaleItemPrice[i]

print("")
print("Total price of the computer: " + str(computerPrice))
```

[5]

(e) The following is an example solution. There are other possible solutions.

Pseudocode:

```
OUTPUT "Item code "
OUTPUT "Item description "
OUTPUT "Item price "
OUTPUT "Category"
OUTPUT "-----"

FOR x = 9 TO 17
    OUTPUT ItemCode[x] + Space(9)
    OUTPUT ItemDescription[x] + Space(40 - LEN(ItemDescription[x]))
    myPrice = Price[x]
    OUTPUT myPrice + Space(12 - LEN(myPrice))
    OUTPUT Category[x]
NEXT

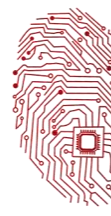
myOption = ""

WHILE UPPER(myOption) <> "N"
    OUTPUT "Do you want TO buy additional components? (Y/N)... "
    INPUT myOption

    IF UPPER(myOption) = "Y" THEN
        ItemID = ""

        WHILE Not (ItemID = "D1" OR ItemID = "D2" OR ItemID = "E1" OR _
            ItemID = "E2" OR ItemID = "E3" OR ItemID = "F1" OR _
            ItemID = "F2" OR ItemID = "G1" OR ItemID = "G2")
```





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OUTPUT "Chose an additonal Item Code: "

INPUT ItemID

```
IF Not (ItemID = "D1" OR ItemID = "D2" OR ItemID = "E1" OR _  
ItemID = "E2" OR ItemID = "E3" OR ItemID = "F1" OR _  
ItemID = "F2" OR ItemID = "G1" OR ItemID = "G2" THEN
```

```
    OUTPUT "Chose either D1, D2, E1, E2, E3, F1, F2, G1 OR G2."
```

```
END IF
```

```
END WHILE
```

```
itemCount = itemCount + 1
```

```
CASE OF ItemID
```

```
"D1":
```

```
    newSaleItemPrice[itemCount] = Price[9]
```

```
    newSaleItem(itemCount) = ItemDescription[9]
```

```
"D2":
```

```
    newSaleItemPrice[itemCount] = Price[10]
```

```
    newSaleItem(itemCount) = ItemDescription[10]
```

```
"E1":
```

```
    newSaleItemPrice[itemCount] = Price[11]
```

```
    newSaleItem(itemCount) = ItemDescription[11]
```

```
"E2":
```

```
    newSaleItemPrice[itemCount] = Price[12]
```

```
    newSaleItem(itemCount) = ItemDescription[12]
```

```
"E3":
```

```
    newSaleItemPrice[itemCount] = Price[13]
```

```
    newSaleItem(itemCount) = ItemDescription[13]
```

```
"F1":
```

```
    newSaleItemPrice[itemCount] = Price[14]
```

```
    newSaleItem(itemCount) = ItemDescription[14]
```

```
"F2":
```

```
    newSaleItemPrice[itemCount] = Price[15]
```

```
    newSaleItem(itemCount) = ItemDescription[15]
```

```
"G1":
```

```
    newSaleItemPrice[itemCount] = Price[16]
```

```
    newSaleItem(itemCount) = ItemDescription[16]
```

```
"G2":
```

```
    newSaleItemPrice[itemCount] = Price[17]
```

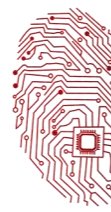
```
    newSaleItem(itemCount) = ItemDescription[17]
```

```
END CASE
```

```
END IF
```

```
END WHILE
```





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```
ComputerPrice = 200
OUTPUT "Computer Invoice"
OUTPUT "Item description          "
OUTPUT "Item price  "

OUTPUT "-----"

FOR x = 1 TO 7
  IF newSaleItem[x] <> "" THEN
    OUTPUT newSaleItem[x] + Space(40 - LEN(newSaleItem[x]))
    myPrice = newSaleItemPrice[x]
    OUTPUT myPrice
    ComputerPrice = ComputerPrice + newSaleItemPrice[x]
  END IF
NEXT

OUTPUT "Basic set of components" + Space(17)
myPrice = 200
OUTPUT myPrice

OUTPUT "-----"

OUTPUT "Total price of the computer: " + ComputerPrice
```

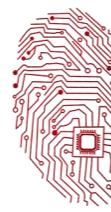
Programming Language: VB

```
itemCount = 0

print("")
print("")
print("Item code    Item Description                                Item price  Category")
print("-" * 95)
for i in range(8, 17):
    print(itemCode[i] + " " * 9 + itemDescription[i] + " " * (43 - len(itemDescription[i])) +
"{:}".format(price[i])
        + " " * (14 - len(str(price[i]))) + category[i])

myOption = ""
while myOption.upper() != "N":
    myOption = input("Would you like to buy additional components? (Y/N): ")
```





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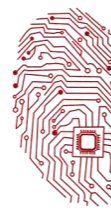
```
if myOption.upper() == "Y":
    ItemID = ""
    while not (ItemID == "D1" or ItemID == "D2" or ItemID == "E1" or
        ItemID == "E2" or ItemID == "E3" or ItemID == "F1" or
        ItemID == "F2" or ItemID == "G1" or ItemID == "G2"):
        ItemID = input("Choose an additional Item Code: ")

    if not (ItemID == "D1" or ItemID == "D2" or ItemID == "E1" or
        ItemID == "E2" or ItemID == "E3" or ItemID == "F1" or
        ItemID == "F2" or ItemID == "G1" or ItemID == "G2"):
        print("Choose either D1, D2, E1, E2, E3, F1, F2, G1 or G2.")

itemCount = itemCount + 1

if ItemID == "D1":
    newSaleItemPrice[itemCount - 1] = price[8]
    newSaleItem[itemCount - 1] = itemDescription[8]
elif ItemID == "D2":
    newSaleItemPrice[itemCount - 1] = price[9]
    newSaleItem[itemCount - 1] = itemDescription[9]
elif ItemID == "E1":
    newSaleItemPrice[itemCount - 1] = price[10]
    newSaleItem[itemCount - 1] = itemDescription[10]
elif ItemID == "E2":
    newSaleItemPrice[itemCount - 1] = price[11]
    newSaleItem[itemCount - 1] = itemDescription[11]
elif ItemID == "E3":
    newSaleItemPrice[itemCount - 1] = price[12]
    newSaleItem[itemCount - 1] = itemDescription[12]
elif ItemID == "F1":
    newSaleItemPrice[itemCount - 1] = price[13]
    newSaleItem[itemCount - 1] = itemDescription[13]
elif ItemID == "F2":
    newSaleItemPrice[itemCount - 1] = price[14]
    newSaleItem[itemCount - 1] = itemDescription[14]
elif ItemID == "G1":
    newSaleItemPrice[itemCount - 1] = price[15]
    newSaleItem[itemCount - 1] = itemDescription[15]
```





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```
elif ItemID == "G2":
    newSaleItemPrice[itemCount - 1] = price[16]
    newSaleItem[itemCount - 1] = itemDescription[16]

computerPrice = 200

print("")
print("Computer Invoice")
print("")
print("Item Description                Item price")
print("-" * 50)
for i in range(7):
    if newSaleItem[i] != "":
        print(str(newSaleItem[i]) + " " * (42 - len(str(newSaleItem[i]))) +
str(newSaleItemPrice[i]))
        computerPrice = computerPrice + newSaleItemPrice[i]

print("")
print("Total price of the computer: {}".format(computerPrice))
```

Programming Language: Python

```
itemCount = 0

print("")

print("")

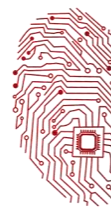
print("Item code    Item Description                Item price    Category")
print("-" * 95)

for i in range(8, 17):

    print(itemCode[i] + " " * 9 + itemDescription[i] + " " * (43 - len(itemDescription[i])) +
"{}".format(price[i])

        + " " * (14 - len(str(price[i]))) + category[i])
```





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```
myOption = ""

while myOption.upper() != "N":

    myOption = input("Would you like to buy additional components? (Y/N): ")

    if myOption.upper() == "Y":

        ItemID = ""

        while not (ItemID == "D1" or ItemID == "D2" or ItemID == "E1" or

            ItemID == "E2" or ItemID == "E3" or ItemID == "F1" or

            ItemID == "F2" or ItemID == "G1" or ItemID == "G2"):

            ItemID = input("Choose an additional Item Code: ")

        if not (ItemID == "D1" or ItemID == "D2" or ItemID == "E1" or

            ItemID == "E2" or ItemID == "E3" or ItemID == "F1" or

            ItemID == "F2" or ItemID == "G1" or ItemID == "G2"):

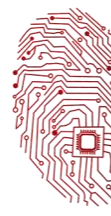
            print("Choose either D1, D2, E1, E2, E3, F1, F2, G1 or G2.")

        itemCount = itemCount + 1

    if ItemID == "D1":

        newSaleItemPrice[itemCount - 1] = price[8]
```





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```
newSaleItem[itemCount - 1] = itemDescription[8]

elif ItemID == "D2":

    newSaleItemPrice[itemCount - 1] = price[9]

    newSaleItem[itemCount - 1] = itemDescription[9]

elif ItemID == "E1":

    newSaleItemPrice[itemCount - 1] = price[10]

    newSaleItem[itemCount - 1] = itemDescription[10]

elif ItemID == "E2":

    newSaleItemPrice[itemCount - 1] = price[11]

    newSaleItem[itemCount - 1] = itemDescription[11]

elif ItemID == "E3":

    newSaleItemPrice[itemCount - 1] = price[12]

    newSaleItem[itemCount - 1] = itemDescription[12]

elif ItemID == "F1":

    newSaleItemPrice[itemCount - 1] = price[13]

    newSaleItem[itemCount - 1] = itemDescription[13]

elif ItemID == "F2":

    newSaleItemPrice[itemCount - 1] = price[14]

    newSaleItem[itemCount - 1] = itemDescription[14]

elif ItemID == "G1":

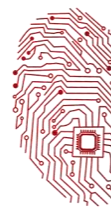
    newSaleItemPrice[itemCount - 1] = price[15]

    newSaleItem[itemCount - 1] = itemDescription[15]

elif ItemID == "G2":

    newSaleItemPrice[itemCount - 1] = price[16]
```





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```
newSaleItem[itemCount - 1] = itemDescription[16]
```

```
computerPrice = 200
```

```
print("")
```

```
print("Computer Invoice")
```

```
print("")
```

```
print("Item Description"                                "Item price")
```

```
print("-" * 50)
```

```
for i in range(7):
```

```
    if newSaleItem[i] != "":
```

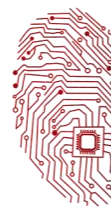
```
        print(str(newSaleItem[i]) + " " * (42 - len(str(newSaleItem[i]))) +  
str(newSaleItemPrice[i]))
```

```
        computerPrice = computerPrice + newSaleItemPrice[i]
```

```
print("")
```

```
print("Total price of the computer: {}".format(computerPrice))
```





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(f) The following is an example solution. There are other possible solutions.

ComputerPrice = 200

discApplied = 0 // Additional part

moneySaved // Additional part

OUTPUT "Computer Invoice"

OUTPUT "Item description "

OUTPUT "Item price "

OUTPUT "-----"

FOR x = 1 TO 7

IF newSaleItem[x] <> "" THEN

OUTPUT newSaleItem[x] + Space(40 - LEN(newSaleItem[x]))

myPrice = newSaleItemPrice[x]

OUTPUT myPrice

ComputerPrice = ComputerPrice + newSaleItemPrice[x]

END IF

NEXT

OUTPUT "Basic set of components" + Space(17)

myPrice = 200

OUTPUT myPrice

OUTPUT "-----"

OUTPUT "Total price of the computer: " + ComputerPrice

IF itemCount = 3 THEN

OUTPUT "No discount applied."

ELSEIF itemCount = 4 THEN

OUTPUT "5% discount applied."

moneySaved = ComputerPrice * 0.05

// Additional part

moneySavedPerc = (moneySaved / ComputerPrice) * 100

// Additional part

ComputerPrice = ComputerPrice * 0.95

ELSEIF itemCount > 4 THEN

OUTPUT "10% discount applied."

moneySaved = ComputerPrice * 0.05

// Additional part

moneySavedPerc = (moneySaved / ComputerPrice) * 100

// Additional part

ComputerPrice = ComputerPrice * 0.9

END IF

OUTPUT ""

OUTPUT "Money saved as percentage of original price: " + moneySavedPerc

OUTPUT "Total price of the computer after discount: " + ComputerPrice

