M.Huzaifa AI-333873 Assignmet 3

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1 Assignemt 3

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3 Discounts and Pricing

4 1) Check Discount Eligibility

4.0.1 Write a program to check if a customer is eligible for a discount. If the total purchase is more than 100$, apply a 10% discount and display the final price. otherwise, display the total price as it is.

```python
[1]: item1=float(input("Enter the item price: "))
     item2=float(input("Enter the item price: "))
     item3=float(input("Enter the item price: "))
     item4=float(input("Enter the item price: "))
     item5=float(input("Enter the item price: "))

     total=item1+item2+item3+item4+item5

     #as per rate of 08 Dec 2024
     contodoller=int(total/278)

     if contodoller > 100:
         pay=contodoller*0.10
         totalbill=int(contodoller-pay)

         print(f"""
                 Markhorian Brands Collection

                 ----------------------------

                 Total Bill   :   {contodoller}
                 Discount     :   {pay}
                 Payable      :   {totalbill}


             Thank you for shopping with us """)
```

```python
else:
    print(f"""

            Markhorian Brands Collection

            ----------------------------

            Total Bill   :    {contodoller}
            Payable      :    {contodoller}


            Thank you for shopping with us """)
```

```
Enter the item price: 4500
Enter the item price: 7000
Enter the item price: 8000
Enter the item price: 15000
Enter the item price: 4500

            Markhorian Brands Collection

            ----------------------------

            Total Bill   :    140
            Discount     :    14.0
            Payable      :    126


            Thank you for shopping with us
```

5 2) Calculate Bulk Discount

5.0.1 If a customer buys more than 5 items, apply a 15% discount on the total price. Otherwise, no discount is applied. Display the total price.

```python
[5]: Shop={"Charge":2500,"Mobile":25000,"Handfree":450,"Airdots":1500,"Laptop":50000}

     print(Shop)
     item1=(input("Enter the item name: ")).capitalize()
     quantity=int(input("Enter the quantity: "))
     discount=0
     pay=0
     if item1 in Shop:
         total=Shop[item1]*qunatity
         if quantity>5:
             discount=total*0.15
             pay=total-discount
         else:
             discount=0
```

```
            pay=total-discount
else:
    print("Item is not available.")

print(f"""

        Markhorian Brands Collection

        ---------------------------

        Item Name       :       {item1}
        Price           :       {Shop[item1]}
        Quantity        :       {quantity}
        Discount        :       {discount}
        Payable         :       {pay}""")
```

```
{'Charge': 2500, 'Mobile': 25000, 'Handfree': 450, 'Airdots': 1500, 'Laptop':
50000}
Enter the item name: charge
Enter the quantity: 6


        Markhorian Brands Collection

        ---------------------------

        Item Name       :       Charge
        Price           :       2500
        Quantity        :       6
        Discount        :       2250.0
        Payable         :       12750.0
```

6 3) Membership Discount

6.0.1 If a customer is a member. He gets a 20% Discount. Non-members get a 5% Discount. Calculate and print the discounted price.

```
[8]: print(Shop)

     item1=input("Enter the name of item: ").capitalize()
     discount=0
     total=0
     pay=0

     if item1 in Shop:
         member=input("Are you a member: ").capitalize()
         total=Shop[item1]
         if member=="Yes":
```

```python
            discount=total*0.20
            pay=total-discount
        else:
            discount=total*0.5
            pay=total-discount
else:
    print(f"{item1} is not available.")


print(f"""

        Huzaifa Electronics

        -------------------

        Item Name : {item1}
        Price     : {total}
        Discount  : {discount}
        Payable   : {pay}""")
```

```
{'Charge': 2500, 'Mobile': 25000, 'Handfree': 450, 'Airdots': 1500, 'Laptop':
50000}
Enter the name of item: charge
Are you a member: yes


        Huzaifa Electronics

        -------------------

        Item Name : Charge
        Price     : 2500
        Discount  : 500.0
        Payable   : 2000.0
```

7 4) Seasonal Sale

7.0.1 If today is holiday, apply a 25% discount else 10% is applied. Calculate the price after discount.

```python
[10]: print(Shop)
      item1=input("Enter the name of item: ").capitalize()
      discount=0
      pay=0
      total=0
      holiday="November"

      if item1 in Shop:
          total=Shop[item1]
          Holidaycheck=input("What is the month.").capitalize()
```

```python
    if Holidaycheck==holiday:
        discount=total*0.25
        pay=total-discount
    else:
        discount=total*0.10
        pay=total-discount
else:
    print("Item is not available.")



print(f"""

        Huzaifa Electronics

        -------------------

        Item Name : {item1}
        Price     : {total}
        H/Discount: {discount}
        Payable   : {pay}""")
```

```
{'Charge': 2500, 'Mobile': 25000, 'Handfree': 450, 'Airdots': 1500, 'Laptop':
50000}
Enter the name of item: charge
What is the month.november


        Huzaifa Electronics

        -------------------

        Item Name : Charge
        Price     : 2500
        H/Discount: 625.0
        Payable   : 1875.0
```

8 5) Buy-One Get-One Free

8.0.1 If a customer buys an even number of items, They get half of them for free. Otherwise they pay for all.

```python
[11]: print(Shop)

      item1=input("Enter the name of item: ").capitalize()
      discount=0
      total=0
      pay=0
```

```python
if item1 in Shop:
    qty=int(input("Enter the quantity: "))
    total=Shop[item1]*qty
    if (qty%2)==0:
        discount=total*0.50
        pay=total-discount
    else:
        discount=total*0
        pay=total-discount
else:
    print("The item is not available.")



print(f"""

        Huzaifa Communications

        ----------------------

        Item Name  :  {item1}
        Price      :  {Shop[item1]}
        Quantity   :  {qty}
        Total      :  {total}
        Discount   :  {discount}
        Payable    :  {pay}""")
```

```
{'Charge': 2500, 'Mobile': 25000, 'Handfree': 450, 'Airdots': 1500, 'Laptop':
50000}
Enter the name of item: charge
Enter the quantity: 6


        Huzaifa Communications

        ----------------------

        Item Name  :   Charge
        Price      :   2500
        Quantity   :   6
        Total      :   15000
        Discount   :   7500.0
        Payable    :   7500.0
```

9 Tax Calculations

10 6) Sales Tax

10.0.1 If the price an item is greater than $500, apply a luxary of 15%. Otherwise standard tax of 8%. Display the total price after tax.

```python
print(Shop)

item1=input("Enter the name of item: ").capitalize()
total=0
discount=0
pay=0

if item1 in Shop:
    convt=Shop[item1]/278
    total=int(convt)
    if total > 500:
        discount=total*0.20
        pay=total+discount
    else:
        discount=total*0.10
        pay=total+discount
else:
    print("Item is not available.")


print(f"""

        Huzaifa Electronics

        -------------------

        Item Name : {item1}
        Price     : {total}
        Sales Tax : {discount}
        Payable   : {pay} """)
```

```
{'Charge': 2500, 'Mobile': 25000, 'Handfree': 450, 'Airdots': 1500, 'Laptop':
50000}
Enter the name of item: Charge


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        -------------------

        Item Name : Charge
        Price     : 8
        Sales Tax : 0.8
```

```
     Payable    : 8.8
```

11 7) Income Tax

11.0.1 If a person´s annual income is above $50000 they pay 20% tax. Otherwise they pay 10%. Calculate and display the tax ammount.

```python
[5]: Yinc=int(input("Enter your annual income: "))
     tax=0

     if Yinc > 50000:
         tax=Yinc*0.20
         finc=Yinc-tax
     else:
         tax=Yinc*0.10
         finc=Yinc-tax

     print(f"Your annual income after tax is {int(finc)}.")
```

```
Enter your annual income: 55000
Your annual income after tax is 44000.
```

12 8) Tax Bracket

12.0.1 Write a program to categorize a person into tax brackets.

```python
[24]: Inc=int(input("Enter you income: "))
      tax=0

      if Inc > 100000:
          tax="High Tax"
      elif Inc > 30000:
          tax="Medium Tax"
      else:
          tax="Low Tax"

      print(tax)
```

```
Enter you income: 45000
Medium Tax
```

13 9) VAT Calculation

13.0.1 If the item is marked as essential, apply a VAT of 5%. Otherwise apply a VAT of 12%. Display the final price.

```
[27]: Shop={"Bread":20,"Flour":500,"Sugar":150,"Cigarrate":15}
      print(Shop)
      item=input("Enter the name of item: ").capitalize()
      esscheck=input("Is the item essential for life: ").capitalize()
      vat=0
      price=0

      if esscheck=="Yes":
          vat=Shop[item]*0.05
          price=Shop[item]+vat
      else:
          vat=Shop[item]*0.12
          price=Shop[item]+vat

      print(f"The price of item after VAT is {price}")
```

```
{'Bread': 20, 'Flour': 500, 'Sugar': 150, 'Cigarrate': 15}
Enter the name of item: cigarrate
Is the item essential for life: no
The price of item after VAT is 16.8
```

14 10) Tax-Free Day

14.0.1 If today is a tax-free day, Display the original price. Otherwise, add a 7% tax.

```
[2]: ip=int(input("Enter the price of item: "))
     taxfree=input("Is today the tax-free day: ").capitalize()
     price=0
     tax=0

     if taxfree=="Yes":
         price=ip
     else:
         tax=ip*0.07
         price=ip+tax

     print(price)
```

```
Enter the price of item: 1500
Is today the tax-free day: no
1605.0
```

15   Shopping and Billing

16   11) Free Shipping

16.0.1   If the total purchase amount is more than 50usd, Offer free shipping else charge 5usd.

```python
amazon={"Laptop":50000,"Airpods":1500,"Television":20000,"Mic":2500}
print(amazon)

item=input("Enter the name of item: ").capitalize()
cvtdlr=amazon[item]/278
price=0
ship=0

if cvtdlr>50:
    ship=0
    price=cvtdlr+ship

else:
    ship=5
    price=cvtdlr+ship

print(f"""


    Amazon Good/Products

    --------------------

    Item Name  : {item}
    Item Price : {int(cvtdlr)}$
    Ship Fee   : {ship}$
    Payable    : {int(price)}$

        Thank You
      For Shopping
    """)
```

```
{'Laptop': 50000, 'Airpods': 1500, 'Television': 20000, 'Mic': 2500}
Enter the name of item: airpods


    Amazon Good/Products

    --------------------

    Item Name  : Airpods
    Item Price : 5$
```

```
Ship Fee   : 5$
Payable    : 10$

        Thank You
      For Shopping
```

17   12) Discount Code

17.0.1 If a customer enter the correct Discount Code, apply a 10% discount. Otherwise charge the full amount.

```python
[13]: print(amazon)
      item=input("Enter the item name: ").capitalize()
      cvtdlr=int(amazon[item]/278)
      dis=input("Enter the discount coupen code: ").upper()
      price=0
      discount=0
      discd="DISCOUNT10"

      if dis==discd:
          discount=cvtdlr*0.10
          price=cvtdlr-discount
          print(f"The price of item is {cvtdlr}. After the coupen the price is␣
       ↪{price}.")
      else:
          price=cvtdlr
          print(f"The price of the item is {price}")
```

```
{'Laptop': 50000, 'Airpods': 1500, 'Television': 20000, 'Mic': 2500}
Enter the item name: laptop
Enter the discount coupen code: discount10
The price of item is 179. After the coupen the price is 161.1.
```

18   13) Tiered Discount

18.0.1 Apply discount based on total price

```python
[27]: print(amazon)
      item=input("Enter the name of item: ").capitalize()
      discount=0
      cvtdlr=int(amazon[item]/278)
      price=0

      if cvtdlr>50:
          discount=cvtdlr*0.10
          price=cvtdlr-discount
```

```python
        print(f"The total price is {cvtdlr}. Payable after discount 10% is {price}.
    ↪")
elif cvtdlr>100:
    discount=cvtdlr*0.20
    price=cvtdlr-discount
    print(f"The total price is {cvtdlr}. Payable after discount 20% is {price}.
    ↪")

else:
    discount=0
    price=cvtdlr-discount
    print(f"The total price is {cvtdlr}.")
```

```
{'Laptop': 50000, 'Airpods': 1500, 'Television': 20000, 'Mic': 2500}
Enter the name of item: mic
The total price is 8.
```

19   14) Minimum Purchase Requirement

19.0.1   If the total amount is less than 20, display a message: "Minimum purchase of 20 is required." Otherwise, display the total amount.

```python
[20]: print(amazon)

item=input("Enter the name of item: ").capitalize()
cvtdlr=int(amazon[item]/278)

if cvtdlr<20:
    print("Minimum purchase of 20$ is required.")

else:
    print(f"Your total is {cvtdlr}$.")
```

```
{'Laptop': 50000, 'Airpods': 1500, 'Television': 20000, 'Mic': 2500}
Enter the name of item: airpods
Minimum purchase of 20$ is required.
```

20   15) Loyality Points

20.0.1   If a customer is a loyal member (is_loyal = True), they earn double loyalty points for their purchase. Otherwise, they earn standard points.

```python
[24]: print(amazon)

item=input("Enter the name of item: ").capitalize()
loychk=input("Are you a loyal customer.").capitalize()
```

```
loyal=1
price=amazon[item]
if loychk=="Yes":
    loyal=+2

else:
    loyal=+1

print(f"Your total is {price}.Your earned Loyality points {loyal}")
```

```
{'Laptop': 50000, 'Airpods': 1500, 'Television': 20000, 'Mic': 2500}
Enter the name of item: laptop
Are you a loyal customer.no
Your total is 50000.Your earned Loyality points 1
```

21 Travel and Tickets

22 16) Travel Discount

22.0.1 If a person is traveling more than 500 miles, offer a 20% discount on ticket price. Otherwise, charge the full amount.

[30]:
```
ticketprice=20000
print(ticketprice)
discount=0
mchk=input("Are you travelling more than 500 miles: ").capitalize()

if mchk=="Yes":
    discount=ticketprice*0.20
    price=ticketprice-discount
    print(f"For travelling more than 500 miles you are discounted Rs.{discount}.
 ↪ Your total price is {price}")
else:
    discount=0
    print(f"Your ticket price is {ticketprice}.")
```

```
20000
Are you travelling more than 500 miles: yes
For travelling more than 500 miles you are discounted Rs.4000.0. Your total
price is 16000.0
```

23   17) Child or Senior Discount

23.0.1   If a passenger is under 12 or over 60 years old, apply a 15% discount on the ticket price. Otherwise, charge the full price.

```
[33]: print(ticketprice)
      age=int(input("Enter your age: "))

      if age<12:
          discount=ticketprice*0.15
          price=ticketprice-discount
          print(f"You avail child discount of Rs.{discount}.Your total is Rs.{price}")
      elif age>60:
          discount=ticketprice*0.15
          price=ticketprice-discount
          print(f"You avail elderly discount of Rs.{discount}.Your total is Rs.
       ↪{price}")
      else:
          print(f"You don´t avail age discount.Your total is Rs.{ticketprice}.")
```

```
20000
Enter your age: 11
You avail child discount of Rs.3000.0.Your total is Rs.17000.0
```

24   1) Ticket type Pricing

24.0.1   If the ticket is for a weekend (is_weekend = True), add a 10% surcharge. Otherwise, charge the standard price.

```
[34]: print(f"The ticket price is Rs.{ticketprice}.")
      wchk=input("Is it weekend: ").capitalize()

      if wchk=="Yes":
          scharge=ticketprice*0.10
          price=ticketprice+scharge
          print(f"Due to weekends you have to pay Rs.{price}.")
      else:
          print(f"You have to pay Rs.{ticketprice}.")
```

```
The ticket price is Rs.20000.
Is it weekend: yes
Due to weekends you have to pay Rs.22000.0.
```

25 19) Baggage Fee

25.0.1 If the total baggage weight is over 20kg, charge 10 per extra kilogram. Otherwise, no extra fee.

```python
[37]: weight=int(input("Enter the weight: "))

      if weight>20:
          eweight=weight-20
          charge=eweight*10
          print(f"Your are overpacked {eweight} Kgs. You have to pay extra ${charge}.
       ↪")
      else:
          print("Your are in the weight limit.")
```

```
Enter the weight: 25
Your are overpacked 5 Kgs. You have to pay extra $50.
```

26 20) Early Bird Discount

26.0.1 If a ticket is booked more than 30 days in advance, apply a 10% discount. Otherwise, charge the full price.

```python
[39]: echk=int(input("How many days ago you have booked the ticket: "))

      if echk>30:
          print("For booking 30 days in advance you got a 10% discount.")
      else:
          print("You got no discount.")
```

```
How many days ago you have booked the ticket: 15
You got no discount.
```

27 Grades and Performance

28 21) Pass or Fail

28.0.1 If a student scores 40 or more, print "Pass". Otherwise, print "Fail".

```python
[44]: score=int(input("What is your score: "))

      if score>=40:
          print("Pass")
      else:
          print("Fail")
```

```
What is your score: 35
Fail
```

29 22) Grade Assignment

29.0.1 Based on students score, Assign grades

```
[47]: score=int(input("Enter your score: "))

      if score >=90:
          print("Your Grade is A.")
      elif score >=75:
          print("Your Grade is B.")
      elif score >=50:
          print("Your Grade is C.")
      else:
          print("You Failed the exam.")
```

```
Enter your score: 76
Your Grade is B.
```

30 23) Bonus Marks

30.0.1 If a student completes all assignments, add 5 bonus marks to their score. Otherwise, no bonus marks.

```
[48]: achk=input("Have You completed your assignments: ").capitalize()

      if achk=="Yes":
          print("You got Bonus of 5 marks.")
      else:
          print("You got no bonus points.")
```

```
Have You completed your assignments: yes
You got Bonus of 5 marks.
```

31 24) Attendance Elgibilaty

31.0.1 If a student's attendance is 75% or more, they are eligible to take the exam. Otherwise, they are not.

```
[51]: att=int(input("Enter your overall attendance: "))

      if att>=75:
          print("You are allowed to take the exam.")
      else:
          print("Try again next year.")
```

```
Enter your overall attendance: 74
Try again next year.
```

32   25) Scholership Eligibility

32.0.1 If a student's grade is "A" and their annual family income is below 30,000, they are eligible for a scholarship. Otherwise, they are not.

```python
income=int(input("Enter your family income: "))
gchk=input("Enter your grade: ").capitalize()

if income<=30000 and gchk=="A":
    print("You are eligable for scholership.")
else:
    print("You are ineligable.")
```

```
Enter your family income: 25000
Enter your grade: a
You are eligable for scholership.
```