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## Conditional Structures Assignments

### Discounts and Pricing

#### 1) Check Discount Eligibility

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.

```
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"""
        Seraph Brand Collection
        _____

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

        Thank you for shopping with us """)
else:
    print(f"""

        Tamjeed's Communication
        _____

        Total Bill      :    {contodoller}
    """)
```

```
Payable      : {contodoller}
```

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

```
Enter the item price: 500
Enter the item price: 1000
Enter the item price: 100
Enter the item price: 3000
Enter the item price: 7000
```

```
Tamjeed's Communication
```

---

```
Total Bill   : 41
Payable      : 41
```

```
Thank you for shopping with us
```

## 2) Calculate Bulk Discount

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.

```
shop = {"Charger": 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] * quantity # Fixed variable name from
    "qunatity" to "quantity"
    if quantity > 5:
        discount = total * 0.15
        pay = total - discount
    else:
        discount = 0
        pay = total - discount
else:
    print("Item is not available.")
```

```
print(f"""
    Tamjeed's Communication
    _____

    Item Name      :    {item1}
    Price          :    {shop[item1] if item1 in shop else 'N/A'}
    Quantity       :    {quantity}
    Discount       :    {discount}
    Payable        :    {pay}""")

{'Charger': 2500, 'Mobile': 25000, 'Handfree': 450, 'Airdots': 1500,
'Laptop': 50000}

Enter the item name: handfree
Enter the quantity: 2
```

```

    Tamjeed's Communication
    _____

    Item Name      :    Handfree
    Price          :    450
    Quantity       :    2
    Discount       :    0
    Payable        :    900
```

### 3) Membership Discount

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

```
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":
        discount=total*0.20
        pay=total-discount
    else:
        discount=total*0.5
```

```

        pay=total-discount
else:
    print(f"{item1} is not available.")
print(f"""

    Tamjeed's Communication
    _____

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

{'Charger': 2500, 'Mobile': 25000, 'Handfree': 450, 'Airdots': 1500,
'Laptop': 50000}

Enter the name of item:  chARGER
Are you a member:  YES

```

Tamjeed's Communication

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Item Name : Charger  
 Price : 2500  
 Discount : 500.0  
 Payable : 2000.0

## 4) Seasonal Sale

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

```

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()
    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"""

    Tamjeed's Communication
    _____

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

{'Bread': 20, 'Flour': 500, 'Sugar': 150, 'Cigarrate': 15}

Enter the name of item: Bread
What is the month. November

```

Tamjeed's Communication

---

Item Name : Bread  
 Price : 20  
 H/Discount: 5.0  
 Payable : 15.0

## 5) Buy-One Get-One Free

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

```

print(Shop)

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

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"""

```

Tamjeed's Communication

---

```

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

```

```

{'Bread': 20, 'Flour': 500, 'Sugar': 150, 'Cigarrate': 15}

```

Enter the name of item: flour

Enter the quantity: 2

Tamjeed's Communication

---

```

Item Name : Flour
Price     : 500
Quantity  : 2
Total     : 1000
Discount  : 500.0
Payable   : 500.0

```

# Tax Calculations

## 6) Sales Tax

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

```
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"""

    Tamjeed's Confictionary Shop
    _____

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

{'Bread': 20, 'Flour': 500, 'Sugar': 150, 'Cigarrate': 15}
Enter the name of item: Flour

    Tamjeed's Confictionary Shop
    _____

    Item Name : Flour
    Price      : 1
```

Sales Tax : 0.1  
Payable : 1.1

## 7) Income Tax

If a person's annual income is above \$50000 they pay 20% tax. Otherwise they pay 10%. Calculate and display the tax amount.

```
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: 30000

Your annual income after tax is 27000.

## 8) Tax Bracket

Write a program to categorize a person into tax brackets.

```
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: 10000

Low Tax



## 9) VAT Calculation

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

```
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: BREAD
Is the item essential for life: YES

The price of item after VAT is 21.0
```

## 10) Tax-Free Day

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

```
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: 1000
Is today the tax-free day: NO

1070.0
```

## Shopping and Billing

### 11) Free Shipping

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

```
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: LAPTOP
```

### Amazon Good/Products

---

Item Name : Laptop  
Item Price : 179\$  
Ship Fee : 0\$  
Payable : 179\$

Thank You  
For Shopping

## 12) Discount Code

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

```
print(amazon)
item=input("Enter the item name: ").capitalize()
cvtdlr=int(amazon[item]/278)
dis=input("Enter the discount coupon 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 coupon 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 coupon code: discount10

The price of item is 179. After the coupon the price is 161.1.
```

## 13) Tiered Discount

Apply discount based on total price

```
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
    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:  LAPTOP
The total price is 179. Payable after discount 10% is 161.1.
```

## 14) Minimum Purchase Requirement

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

```
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: MIC

Minimum purchase of 20\$ is required.

## 15) Loyalty Points

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

```
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 Loyalty points {loyal}")

{'Laptop': 50000, 'Airpods': 1500, 'Television': 20000, 'Mic': 2500}

Enter the name of item: LAPTOP
Are you a loyal customer. YES

Your total is 50000.Your earned Loyalty points 2
```

## Travel and Tickets

### 16) Travel Discount

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

```
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: 76

Your ticket price is 20000.

## 17) Child or Senior Discount

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

```

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: 76

You avail elderly discount of Rs.3000.0.Your total is Rs.17000.0

## 1) Ticket type Pricing

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

```
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.

## 19) Baggage Fee

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

```
weight=int(input("Enter the weight: "))

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

Enter the weight: 54

Your are overpacked 34 Kgs. You have to pay extra \$340.

## 20) Early Bird Discount

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

```
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: 32

For booking 30 days in advance you got a 10% discount.

## Grades and Performance

### 21) Pass or Fail

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

```
score=int(input("What is your score: "))  
  
if score>=40:  
    print("Pass")  
else:  
    print("Fail")
```

What is your score: 39

Fail

### 22) Grade Assignment

Based on students score, Assign grades

```
score=int(input("Enter your score: "))  
  
if score >=90:  
    print("Your Grade is A+ONE.")  
elif score >=80:  
    print("Your Grade is A+.")  
elif score >=70:
```



```

    print("Your Grade is A.")
elif score >=60:
    print("Your Grade is B.")
elif score >=50:
    print("Your Grade is C.")
elif score >=40:
    print("Your Grade is D.")
else:
    print("You Failed the exam.")

```

Enter your score: 90

Your Grade is A+ONE.

## 23) Bonus Marks

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

```

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.

## 24) Attendance Eligibility

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

```

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: 95

You are allowed to take the exam.

## 25) Scholarship Eligibility

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.

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

if income<=30000 and gchk=="A":
    print("You are eligible for scholarship.")
else:
    print("You are ineligible for scholarship.")

Enter your family income: 100
Enter your grade: B

You are ineligible for scholarship.
```