

## 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.

```
In [4]: price=float(input("Enter the Price in Dollars:"))
discount=price*0.1
final_price=price-discount
if price >100:
    print(f"Congratulations You Got 10% Discount on your Product now the discounted amount is:{final_price}$")
else:
    print("The amount of shopping is:",price)
```

Congratulations You Got 10% Discount on your Product now the discounted amount is:180.0\$

## 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.

```
In [34]: item=float(input("Enter the number of items:"))
if item>5:
    item1=float(input("Enter the amount of items:"))
    discount=item1*0.15
    final_price=item1-discount
    print("You have bought more than 5 items so Congratulations there is 15% discount on it so the Total amount")
else:
    item2=float(input("Enter the amount of items:"))
    print("The Total Amount Is:",item2)
```

You have bought more than 5 items so Congratulations there is 15% discount on it so the Total amount after discount is : 8500.0

## 3. Membership Discount

Check if the customer is a member (is\_member = True). Members get a 20% discount; non-members get a 5% discount. Calculate and print the discounted price.

```
In [41]: Members=["Zarrar","Zaid","Abdullah","Hammad","Obaid","Saleh"]
member1=input("Enter your name:")
if member1 in Members:
    item=float(input("Enter the amount of product:"))
    discount=item*0.2
    final_price=item-discount
    print("Your a member so congratulations you got 20% discount on your purchase so now the amount is:",final_price)
else:
    item1=float(input("Enter the amount of the product:"))
    discount2=item1*0.05
    final_price1=item1-discount2
    print("You are not a member so you have got 5% discount on you purchase so now the total amount is:",final_price1)
```

Your a member so congratulations you got 20% discount on your purchase so now the amount is: 8000.0

## 4. Seasonal Sale

If today is a holiday (is\_holiday = True), apply a 25% discount; otherwise, apply a 10% discount. Calculate the price after discount.

```
In [45]: holiday=["Saturday","Sunday"]
day=input("Which Day is Today:")
item=float(input("Enter the amount of product:"))
if day in holiday:
    discount=item*0.25
    final_price=item-discount
    print("Today is Holiday,Congratulations you have got 20% discount on your Purchase your total amount is:",final_price)
else:
    discount=item*0.1
    final_price=item-discount
    print("The total amount is :",final_price)
```

Today is Holiday,Congratulations you have got 20% discount on your Purchase your total amount is: 75.0

## 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. Calculate the number of items the customer has to pay for.

```
In [25]: item=int(input("Enter the numbers of items you have purchased:"))
if item% 2 == 0:
    buy=int(input("Enter the amount of items:"))
    item2=buy/2
    print("Congratulations you have won the offer now the price is: ",item2)
else:
    buy=float(input("Enter the amount of items:"))
    print("The amount of products are:",buy)
```

The amount of products are: 1000.0

## 6.Sales Tax

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

```
In [27]: item=float(input("Enter the amount of product"))
if item > 500:
    tax=item*(1+0.15)
    print("The amount of products afthe luxury tax is :",tax)
else:
    tax=item*(1+0.08)
    print("The amount of products after standard tax is:",tax)
```

The amount of products afthe luxury tax is : 1150.0

## 7.Income Tax

If a person's annual income is above \$50,000, they pay 20% tax. Otherwise, they pay 10%. Calculate and display the tax amount

```
In [29]: income=float(input("Enter your income:"))
if income>50000:
    tax=income*0.20
    tax1=income-tax
    print("After charging tax, your income is:",tax1)
else:
    tax=income*0.10
    tax1=income-tax
    print("After charging tax, your income is:",tax1)
```

After charging tax, your income is: 900.0

## 8.Tax Bracket

Write a program to categorize a person into tax brackets:  $\text{Income} < 30,000$ : "LowTax"  $\text{Income} \geq 30,000 \wedge \text{Income} < 100,000$ : "MediumTax"  $\text{Income} \geq 100,000$ : "High Tax"

```
In [6]: income=float(input("Enter your income:"))
if income<30000:
    print("Low Tax")
elif income<=30000:
    print("Medium tax")
elif income<=30000:
    print("Medium tax")
elif income>=100000:
    print("High Tax")
```

High Tax

## 9.VAT Calculation

If the item is marked as essential (is\_essential = True), apply a VAT of 5%. Otherwise, apply a VAT of 12%. Display the final price.

```
In [13]: essential=['egg','yougurt','milk','chicken','meat']
item=input("Enter the item name:")
price=float(input("Enter the price:"))
if item in essential:
    final_price=price*(1+0.05)
    print("Your product price after VAT is:", final_price)
```

```
else:
    final_price=price*(1+0.12)
    print("Your product price after VAT is:",final_price)
```

Your product price after VAT is: 112.00000000000001

## 10.Tax-Free Day

If today is a tax-free day (tax\_free = True), display the original price. Otherwise, add a 7% tax.

```
In [15]: tax_free_days=(['Sunday'])
day=input("What day is today:")
item=float(input("Enter the item price:"))
if day in tax_free_days:
    print("The original price:",item)
else:
    price=item*(1+0.07)
    print("The item price after adding tax is:",price)
```

The item price after adding tax is: 107.0

## 11.Free Shipping

If the total purchase amount is more than 50, *offer freeshipping*; otherwise, *charge 5* for shipping. Display the total amount including shipping.

```
In [17]: amount=float(input("Enter the purchased amount:"))
if amount>50:
    print("Congratulations you have purchased more than 50$ now you got free shipping, the amount is:",amount)
else:
    charge=amount+5
    print("After shipping fee your amount is :",charge)
```

After shipping fee your amount is : 20.0

## 12. Discount Code

If a customer enters the correct discount code (DISCOUNT10), apply a 10% discount. Otherwise, charge the full amount

```
In [18]: discount_code=(['DISCOUNT10'])
amount=float(input("Enter the amount:"))
code=input("Enter the code:")
if code in discount_code:
    discount=amount*0.10
    final_price=amount-discount
    print("Total price after discount is :",final_price)
else:
    print("The full amount is:",amount)
```

Total price after discount is : 900.0

## 13.Tiered Discounts

Apply discounts based on the total price: ▲0–50: No discount. ▲50–100: 10% discount. ▲Over \$100: 20% discount.

```
In [3]: amount=float(input("Enter the amount:"))
if amount<50:
    print("No Discount the amount is:",amount)
elif amount>50 and amount<100:
    discount=amount*0.10
    final_price=amount-discount
    print("The amount after 10% discount is:",final_price)
elif amount>100:
    discount=amount*0.20
    final_price=amount-discount
    print("The amount after 20% discount is:",final_price)
```

The amount after 20% discount is: 176.0

## 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.

```
In [2]: purchase=float(input("Enter the amount"))
if purchase<20:
    print("Minimum purchase of $20 is required")
```

```
else:
    print("The total amount is:",purchase)
```

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.

```
In [9]: loyal_members=(['Zarrar','zaid','Hammad','kalmati','obaaid'])
name=input("Enter your name:")
if name in loyal_members:
    print("since your a loyal member so you got double points for your purchase:")
else:
    print(f"Since your {name} so you have got the standard points:")
```

since your a loyal member so you got double points for your purchase:

## 16.Travel Discount

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

```
In [7]: miles=float(input("How many do you have travelled:"))
ticket_price=2000
if miles>500:
    discount=ticket_price*0.20
    final_price=ticket_price-discount
    print("The total amount of ticket after 20% discount :",final_price)

else:
    print("The total amount of ticket is :",ticket_price)
```

The total amount of ticket after 20% discount : 1600.0

## 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.

```
In [15]: age=int(input("Enter your age:"))
ticket_price=200
if age<12:
    discount=ticket_price*0.15
    final_price=ticket_price-discount
    print("The amount of ticket price after 15% discount is:",final_price)
elif age>60:
    discount=ticket_price*0.15
    final_price=ticket_price-discount
    print("The amount of ticket price after 15% discount is:",final_price)

else:
    print("The amount of ticket is:",ticket_price)
```

The amount of ticket price after 15% discount is: 170.0

## 18.Ticket Type Pricing

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

```
In [18]: weekend=(["Sunday","Saturday"])
ticket=500
today=input("What day is today:")
if today in weekend:
    discount=ticket*0.10
    final_price=ticket-discount
    print("Today is weekend so we charge 10% extra so now the total amount is:",final_price)
else:
    print("The total amount of ticket is:",ticket)
```

Today is weekend so we charge 10% extra so now the total amount is: 450.0

## 19.Baggage Fee

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

```
In [2]: fee=500
```

```
weight=float(input("Enter the weight in Kg:"))
if weight >20:
    charge = fee+10
    print(f"Since the weight is {weight}Kg so the total fee after charge is: {charge} ")
else:
    print(f"Since the weight is {weight}Kg so the amount is: {fee}")
```

Since the weight is 10.0Kg so the amount is: 500

## 20.Early Bird Discount

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

```
In [4]: ticket_price=2000
booked=int(input("How many days you have been booked the ticket:"))
if booked >30:
    discount=ticket_price*0.10
    print(f"Since you have booked the ticket {booked} days ago, now you have 10% discount so the amount is {tic
else:
    print("your ticket price is:",ticket_price)
```

Since you have booked the ticket 33 days ago, now you have 10% discount so the amount is 1800.0

## 21.Pass or Fail

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

```
In [6]: score=float(input("Enter the score:"))
if score >=40:
    print("Pass")
else:
    print("Fail")
```

Pass

## 22.Grade Assignment

Based on a student's score, assign grades:  $\geq 90$  and above: "A"  $\geq 75-89$ : "B"  $\geq 50-74$ : "C" Below 50: "F"

```
In [9]: score=float(input("Enter your score:"))
if score>=90:
    grade="A"
elif score>=75:
    grade="B"
elif score>=50:
    grade="C"
else:
    grade="F"
print(f"Since the score is {score} so the grade is {grade}")
```

Since the score is 91.0 so the grade is A

## 23.Bonus Marks

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

```
In [21]: assignment=int(input("How many assignment you have Done yet:"))
mark=0
if assignment >=20:
    marks=20+5
elif assignment >=10:
    marks=10
elif assignment >=5:
    marks=5
else:
    marks=3
print(f"since you have done {assignment} assignments so your marks={marks}")
```

since you have done 26 assignments so your marks=25

## 24.Attendance Eligibility

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

```
In [2]: name=input("What is your name:")
        atten=float(input("How much is your attendance :"))
        if atten>=75:
            print(f"Since your attendance is {atten}% You are allowed to take the exam")
        else:
            print(f"Since your attendance is {atten}% You are not allowed to take the exam")
```

Since your attendance is 76.0% 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.

```
In [7]: grade=input("Enter your grade:")
        if grade == "A":
            income=float(input("Enter your income:"))
            if income<30000:
                print("You are eligible for a scholarship")
            else:
                print("Your income is to high you can afford the fees")
        else:
            print("Your grade is low")
```

You are eligible for a scholarship

In [ ]:

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