A- Discount 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.

In [7]:
```python
disc= None
purchase=float(input("enter total purchase:"))
if purchase>10000:
    disc=purchase*0.10
    purchase=purchase-disc
    print("Congratulations! You've got 10% discount")
    print(f"Total price:{purchase}")
else:
    print(f"Total price:{purchase}")
```

```
Congratulations! You've got 10% discount
Total price:13500.0
```

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 [28]:
```python
disc= 0
price_per_item=float(input("What is the price of the item youre buying?:"))
quantity=float(input("how many items have you bought from here:"))
total_price=quantity*price_per_item
if quantity>5:
    disc=total_price*0.15
    total_price=total_price-disc
    print("Congratulations! You've got 15% discount")
    print(f"Total price:{total_price}")
else:
    print(f"Total price:{total_price}")
```

```
Total price:3500.0
```

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 [17]:
```python
members=['Hammad','Ahmad','Hassan','Azhar','Usman','Abu bakr','Umar','Ali']
discount=0
price1=float(input("What is the price of item you're buying:"))
name=input("Enter your name:").capitalize()
if name in members:
    discount=price1*0.20
    price1=price1-discount
    print("Congratulations! You've got 20% discount")
    print(f"Total price:{price1}")
else:
    discount=price1*0.05
    price1=price1-discount
    print("You've got 5% discount!")
    print(f"Total price:{price1}")
```

```
You've got 5% discount!
Total price:950.0
```

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 [2]:
```python
price=float(input("Enter Price:"))
disc=0
is_holiday=input("is it Holiday today? (yes/no):").lower()
if is_holiday.endswith('yes'):
    disc=price*0.25
    price=price-disc
    print("Congratulations! You've got 25% discount")
    print(f"Total price:{price}")
else:
    print(f"Total price:{price}")
```

```
Congratulations! You've got 25% discount
Total price:7500.0
```

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 [10]:
```python
price=float(input("Enter price:"))
bought=float(input("how many items have you bought from here:"))
if bought%2==0:
    price=price//2
    print("Congratulations! You get half the items for free")
    print(f"Total price:{price}")
else:
    print(f"Total price:{price}")
```

```
Congratulations! You get half the items for free
Total price:4500.0
```

B- Tax Calculations

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 [16]:
```python
shop={'laptop':70000,'mobile':50000,'charger':1000,'usb':400,'screen protector':200,'mobile cover':600}
item=input("Hello sir/mam what do you wish to buy?").lower()
tax=0
if item in shop:
    quantity=float(input("How many?"))
    total=quantity*shop[item]
    if total>=50000:
        tax=total*0.15
        total=total+tax
        print(f"Total amount:{total}")
    else:
        tax=total*0.08
        total=total+tax
        print(f"Total amount:{total}")
else:
    print(f"{item} is not available")
```

```
Total amount:1440.0
```

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 [3]:
```python
income=float(input("what is your annual income?"))
tax=0
ltd=1000000
if income>ltd:
    tax=income*0.20
    print(f"Your total tax amount {tax}")
else:
    tax=income*0.10
    print(f"Your total tax amount {tax}")
```

```
Your total tax amount 400000.0
```

8

Tax Bracket

Write a program to categorize a person into tax brackets:

- Income < $30,000: "Low Tax"
- $30,000 ≤ Income < 100,000: "Medium Tax"
- Income ≥ $100,000: "High Tax"

In [28]:
```python
income=float(input("What is your annual income?"))
if income<300000:
    print("You belong to low tax category")
elif income<=1000000 and income>300000:
    print("You belong to medium tax category")
else:
    print("You belong to high tax category")
```

```
You belong to high tax category
```

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 [14]:
```python
essential={'laptop':70000,'mobile':50000,'charger':1000,'usb':400,'screen protector':200,'mobile cover':600}
item=input("Hello sir/mam what do you wish to buy?").lower()
tax=0
price=0
if item in essential:
    tax=essential[item]*0.05
    total=tax+essential[item]
    print(f"Total Amount:{total}")
else:
    price=float(input("Enter the price of the item"))
    tax=price*0.12
    total=price+tax
    print(f"Total Amount with added tax:{total}")
```

```
Total Amount with added tax:11200.0
```

10

Tax-Free Day

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

In [18]:
```python
tax=0
price=float(input('whats the price?'))
is_day=input("is it tax-free day today? (yes/no):").lower()
if is_day=='yes':
    print(f"Total price:{price}")
else:
    tax=price*0.07
    price=price+tax
    print(f"Total price:{price}")
```

```
Total price:107.0
```

C- Shopping and Billing

11

Free Shipping

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

In [1]:
```python
shipping=500
purchase=float(input("enter total purchase:"))
if purchase>1000:
    print("Your item will be delivered with no shipping charges")
    print(f"Total price:{purchase}")
else:
    purchase=purchase+shipping
    print("Your item will be delivered with shipping charges")
    print(f"Total price:{purchase}")
```

```
Your item will be delivered with shipping charges
Total price:1200.0
```

12

Discount Code

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

In [4]:
```python
price=1500
disc_code=input("Enter Discount Code:")
disc=0
if disc_code=='SALAF10':
    disc=price*0.10
    price=price-disc
    print("Congratulations! You've got 10% discount")
    print(f"Total price:{price}")
else:
    print("Sorry wrong code, no discount applied.")
    print(f"Total price:{price}")
```

```
Congratulations! You've got 10% discount
Total price:1350.0
```

13

Tiered Discounts

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

In [21]:
```python
price=float(input("Enter total price:"))
disc=0
if price<=1000 >0:
    print(f"Your Total amount would be {price}")
    print("Thank you for shopping")
elif price<=5000 >1000:
    disc=price*0.10
    price=price-disc
    print(f"Your Total amount would be {price}")
    print("Thank you for shopping")
else:
    disc=price*0.20
    price=price-disc
    print(f"Your Total amount would be {price}")
    print("Thank you for shopping")
```

```
Your Total amount would be 5600.0
Thank you for shopping
```

14

Minimum Purchase Requirement

If the total amount is less than 500 , display a message: "Minimum purchase of 500 is required." Otherwise, display the total amount.

In [7]:
```python
purchase=float(input("enter total purchase:"))
if purchase<500:
    print("Minimum purchase of 500rs is required")
else:
    print(f"Total price:{purchase}")
    print("Thank you for shopping with us.")
```

```
Total price:800.0
Thank you for shopping with us.
```

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]:
```python
members=['Hammad','Ahmad','Hassan','Azhar','Usman','Abu bakr','Umar','Ali']
name=input("Enter your name:").capitalize()
if name in members:
    print("You get 10 loyalty points, Thanks for always shopping with us.")
else:
    print("You get 5 loyalty points! Levelling up little by little.")
```

```
You get 10 loyalty points, Thanks for always shopping with us.
```

D- 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.

In [12]:
```python
price=float(input("Enter Price of your ticket:"))
disc=0
destination=float(input("How far is your destination? (in miles):"))
if destination>=500:
    disc=price*0.20
    price=price-disc
    print("Since youre travelling for more than 500 miles you get 20% discount")
    print(f"Total price:{price}")
else:
    print("Thank you for travelling with us.")
    print(f"Total price:{price}")
```

```
Since youre travelling for more than 500 miles you get 20% discount
Total price:720.0
```

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 [26]:
```python
price=float(input("Enter Price of your ticket:"))
disc=0
age=int(input("How old are you?:"))
if age>=60 or age<=12:
    disc=price*0.15
    price=price-disc
    print(f"Since you're {age} years old you get 15% discount")
    print(f"Total price:{price}")
else:
    print("Thank you for travelling with us.")
    print(f"Total price:{price}")
```

```
Since you're 12 years old you get 15% discount
Total price:765.0
```

18

Ticket Type Pricing

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

In [ ]:
```python
surcharge=0
price=float(input('whats the price?'))
is_weekend=input("are you booking for weekend? (yes/no)").lower()
if is_weekend=='yes':
    surcharge=price*0.10
    price=price+surcharge
    print(f"Total price:{price}")
else:
    print(f"Total price:{price}")
```

19

Early Bird Discount

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

In [3]:
```python
price=float(input("Enter price of your ticket:"))
length=float(input("How long has it been since you booked your ticket? (in days):"))
if length>30:
    disc=price*0.10
    price=price-disc
    print("""Since you booked earlier than 30 days you get 10% discount
            Thank you for travelling with us.""")
    print(f"Total price:{price}")
else:
    print("Thank you for travelling with us.")
    print(f"Total price:{price}")
```

```
Since you booked earlier than 30 days you get 10% discount
            Thank you for travelling with us.
Total price:810.0
```

20

Baggage Fee

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

In [3]:
```python
limit=20
baggage=float(input("whats the weight of your baggage?:"))
if baggage>20:
    baggage=baggage-limit
    price=baggage*100+2000
    print(f"""Since you have {baggage} extra kilos, therefore you will have to pay extra
            Thank you for travelling with us.""")
    print(f"Total price:{price}")
else:
    print("Thank you for travelling with us.")
    print(f"Total price:{price}")
```

```
Since you have 40.0 extra kilos, therefore you will have to pay extra
            Thank you for travelling with us.
Total price:6000.0
```

E- Grades and Performance

21

Pass or Fail

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

In [12]:
```python
totalmarks=500
math=float(input("Enter marks of math"))
english=float(input("Enter marks of english"))
urdu=float(input("Enter marks of urdu"))
computer=float(input("Enter marks of computer"))
physics=float(input("Enter marks of physics"))
earnedmarks=math+english+urdu+computer+physics
perc=earnedmarks/totalmarks*100
if math<40 or english<40 or urdu<40 or computer<40 or physics<40 and perc<40:
    print("You have failed the exams.")
else:
    print("You have passed the exams")
print(perc)
```

```
You have passed the exams
40.0
```

22

Grade Assignment

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

In [24]:
```python
totalmarks=500
math=float(input("Enter marks of math"))
english=float(input("Enter marks of english"))
urdu=float(input("Enter marks of urdu"))
computer=float(input("Enter marks of computer"))
physics=float(input("Enter marks of physics"))
earnedmarks=math+english+urdu+computer+physics
perc=earnedmarks/totalmarks*100
if perc>=90:
    print("Grade A.")
elif perc>75 and perc<90:
    print("Grade B.")
elif perc>50 and perc<75:
    print("Grade C.")
else:
    print("Grade F.")
print(f"Your percentage is {perc}.")
```

```
Grade F.
Your percentage is 49.2.
```

23

Bonus Marks

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

In [4]:
```python
assignment1=input("Have you completed and submitted assignment 1?").lower()
assignment2=input("Have you completed and submitted assignment 2?").lower()
assignment3=input("Have you completed and submitted assignment 3?").lower()
if assignment1=='yes' and assignment2=='yes' and assignment3=='yes':
    print("You get 5 bonus marks, keep it up.")
else:
    print("Try to complete and submit all your assignments on due date")
```

```
You get 5 bonus marks, keep it up.
```

24

Attendance Eligibility

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

In [23]:
```python
total_days=365
attendance=float(input("Out 365 days how many days have you attended the classes?"))
eligibility=attendance/total_days*100
if eligibility>74:
    print(f"You have {eligibility}% attendance therefore you are eligible to take the exams.")
else:
    print("Sorry you are not eligible to take the exams due to short of attendance")
```

```
You have 75.34246575342466% attendance therefore you are eligible to take the exams.
```

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 [27]:
```python
grade=input("What is your current grade?").capitalize()
income=float(input('What is your familys annual income'))
if grade=='A' and income<=3000000:
    print("You are eligible for scholarship")
else:
    print("Sorry you are not eligible for scholarship")
```

```
You are eligible for scholarship
```