Q8. Write a program to calculate the electricity bill (accept number of unit from user) according to the following criteria :

Unit	Price
First 100 units	no charge
Next 100 units	Rs 5 per unit
After 200 units	Rs 10 per unit

(For example if input unit is 350 than total bill amount is Rs2000)

Show Answer

```
units=int(input("Enter Units "))
if units<=100:
    amt=0
elif units>100 and units<=300:
    amt=(units-100)*5
elif units>300:
    amt=0+1000+(units-300)*10

print(f'Total Amount {amt}')
```

Q1. Write a program to accept percentage from the user and display the grade according to the following criteria:

Marks	Grade
> 90	A
> 80 and <= 90	B
>= 60 and <= 80	C
below 60	D

Show Answer

```
p=int(input("Enter Percentage "))
if p>90:
    print("A")
elif p>80 and p<=90:
    print("B")
elif p>=60 and p<=80:
    print("C")
else:
```

```
    print("D")
```

Q2. Write a program to accept the cost price of a bike and display the road tax to be paid according to the following criteria :

Cost price (in Rs)	Tax
> 100000	15 %
> 50000 and <= 100000	10%
<= 50000	5%

Show Answer

```
cost=int(input("Enter Cost Price of A Bike "))
if cost>100000:
    tax=cost*15/100
elif cost>50000 and cost<=100000:
    tax=cost*10/100
else:
    tax=cost*5/100

print(f'Cost Price of Bike {cost}')
print(f'Road Tax {tax:.2f}')
```

https://www.hackerrank.com/challenges/py-if-else/problem?isFullScreen=true

```
n=int(input())
if n%2!=0:
    print("Weird")
elif n>=2 and n<=5:
    print("Not Weird")
elif n>=6 and n<=20:
```

```
    print("Weird")
else:
    print("Not Weird")
```

Q3. A company decided to give bonus to employee according to following criteria:

Time period of Service	Bonus
More than 10 years	10%
>=6 and <=10	8%
Less than 6 years	5%

Ask user for their salary and years of service and print the net bonus amount.

```
salary=int(input("Enter Salary "))
years=int(input("Enter Years of Service "))
if years>10:
    bonus=salary*10/100
elif years>=6 and years<=10:
    bonus=salary*8/100
else:
    bonus=salary*5/100

print(f'Salary {salary}')
print(f'Years of Service {years}')
print(f'Bonus Amount {bonus:.2f}')
```

Q5. Accept the number of days from the user and calculate the charge for library according to following :

Till five days : Rs 2/day.

Six to ten days : Rs 3/day.

11 to 15 days : Rs 4/day

After 15 days : Rs 5/day

Q6. Accept the kilometers covered and calculate the bill according to the following criteria:

First 10 Km Rs11/km

Next 90Km Rs 10/km

After that Rs9/km

Q4. Accept the marked price from the user and calculate the Net amount as(Marked Price – Discount) to pay according to following criteria:

Marked Price	Discount
>10000	20%
>7000 and <=10000	15%
<=7000	10%

Q2. Accept the percentage from the user and display the grade according to the following criteria:

- **Below 25 —- D**
- **25 to 45 —- C**
- **45 to 50 —- B**
- **50 to 60 — B+**
- **60 to 80 — A**
- **Above 80 –- A+**

Q1. Accept the following from the user and calculate the percentage of class attended:

a. Total number of working days

b. Total number of days for absent

After calculating percentage show that, If the percentage is less than 75, than student will not be able to sit in exam.

Nested if

Defining if inside if is called nested if (OR) if followed by if is called nested if.

Syntax:

```
If <condition1>:
  If <condition2>:
      Statement-1
  else:
      Statement-2
elif  <condition3>:
  if <condition4>
      Statement-3
  else:
      Statement-4
```

Example:

```
# Login Application
```

```
user=input("UserName ")
if user=="nit":
    pwd=input("Password ")
    if pwd=="nit321":
        print("Welcome")
    else:
        print("invalid password")
else:
    print("Invalid Username")
```

Output:

UserName nit
Password nit123
invalid password

Example:

```
# Write a program to find max of three numbers

a=int(input("Enter First Number "))
b=int(input("Enter Second Number "))
c=int(input("Enter Third Number "))
if a>b:
    if a>c:
        print(f'{a} is max')
    else:
        print(f'{c} is max')
elif b>a:
    if b>c:
        print(f'{b} is max')
```

```
    else:
        print(f'{c} is max')
elif c>a:
    if c>b:
        print(f'{c} is max')
    else:
        print(f'{b} is max')
else:
    print("Equal")
```

Output:

```
Enter First Number 10
Enter Second Number 20
Enter Third Number 10
20 is max

Enter First Number 10
Enter Second Number 20
Enter Third Number 20
20 is max

Enter First Number 10
Enter Second Number 10
Enter Third Number 10
Equal
```

match statement