if..else..

01) WAP to check whether the given number is positive or negative.

```
n = int(input("Enter number:"))

if(n>0):
    print("Number is positive")
elif(n<0):
    print("Number is negative")
else:
    print("Number is Zero")
```

```
Enter number: 8

Number is positive
```

02) WAP to check whether the given number is odd or even.

```
n = int(input("Enter number:"))

if(n%2==0):
    print("Number is Even")
else:
    print("Number is Odd")
```

```
Enter number: 5

Number is Odd
```

03) WAP to find out largest number from given two numbers using simple if and ternary operator.

```
# using simple if

n1 = int(input("Enter 1st Number:"))
n2 = int(input("Enter 2nd Number:"))

if(n1>n2):
    print(f"{n1} is Largest Number")
else:
    print(f"{n2} is Largest Number")
```

```
Enter 1st Number: 20
Enter 2nd Number: 15

20 is Largest Number
```

```
#using ternary operator

n1 = int(input("Enter 1st Number:"))
n2 = int(input("Enter 2nd Number:"))

large = f"{n1} is Largest Number" if(n1>n2) else f"{n2} is Largest
Number"
print(large)
```

```
Enter 1st Number: 27
Enter 2nd Number: 15

27 is Largest Number
```

04) WAP to find out largest number from given three numbers.

```
n1 = int(input("Enter 1st Number:"))
n2 = int(input("Enter 2nd Number:"))
n3 = int(input("Enter 3rd Number:"))

largest = n1 if (n1 > n2 and n1 > n3) else (n2 if n2 > n3 else n3)

print(f"The largest number is: {largest}")
```

```
Enter 1st Number: 12
Enter 2nd Number: 45
Enter 3rd Number: 32

The largest number is: 45
```

05) WAP to check whether the given year is leap year or not.

[If a year can be divisible by 4 but not divisible by 100 then it is leap year but if it is divisible by 400 then it is leap year]

```
year = int(input("Enter Year:"))

if((year%4==0 and year%100!=0) or (year%400==0)):
    print(f"{year} is Leap")
else:
    print(f"{year} is Not Leap")
```

```
Enter Year: 2024

2024 is Leap
```

06) WAP in python to display the name of the day according to the number given by the user.

```
day = int(input("Enter Number between 1-7:"))

match day:
    case 1:
        print("Sunday")
    case 2:
        print("Monday")
    case 3:
        print("Tuesday")
    case 4:
        print("Wednesday")
    case 5:
        print("Thrusday")
    case 6:
        print("Friday")
    case 7:
        print("Saturday")
    case _:
        print("Invalid Input")
```

```
Enter Number between 1-7: 8

Invalid Input
```

07) WAP to implement simple calculator which performs (add,sub,mul,div) of two no. based on user input.

```
n1 = int(input("Enter 1st Number: "))
n2 = int(input("Enter 2nd Number:"))

cal = input("Enter +,-,* or /:")

match cal:
    case '+':
        print(f"{n1}+{n2} = {n1+n2}")
    case '-':
        print(f"{n1}-{n2} = {n1-n2}")
    case '*':
        print(f"{n1}*{n2} = {n1*n2}")
    case '/':
        print(f"{n1}/{n2} = {n1/n2}")
    case _:
        print("Invalid Choice")
```

```
Enter 1st Number:  12
Enter 2nd Number: 12
Enter +,-,* or /: +
```

```
12+12 = 24
```

08) WAP to read marks of five subjects. Calculate percentage and print class accordingly.

Fail below 35 Pass Class between 35 to 45 Second Class between 45 to 60 First Class between 60 to 70 Distinction if more than 70

```
s1 = int(input("Enter 1st Subject Marks:"))
s2 = int(input("Enter 2nd Subject Marks:"))
s3 = int(input("Enter 3rd Subject Marks:"))
s4 = int(input("Enter 4th Subject Marks:"))
s5 = int(input("Enter 5th Subject Marks:"))
total = s1+s2+s3+s4+s5
print("Total Marks:",total)
percentage = float(total)*(100/500)
print("Percentage is:",percentage)
if(percentage<35):
    print("Fail")
elif(percentage>=35 and percentage<45):
    print("Pass Class")
elif(percentage>=45 and percentage<60):
    print("Second Class")
elif(percentage>=60 and percentage<70):
    print("First Class")
else:
    print("Distinction")
```

```
Enter 1st Subject Marks: 45
Enter 2nd Subject Marks: 89
Enter 3rd Subject Marks: 65
Enter 4th Subject Marks: 98
Enter 5th Subject Marks: 56

Total Marks: 353
Percentage is: 70.60000000000001
Distinction
```

09) Three sides of a triangle are entered through the keyboard, WAP to check whether the triangle is isosceles, equilateral, scalene or right-angled triangle.

```
side1 = float(input("Enter 1st Side:"))
side2 = float(input("Enter 2nd Side:"))
side3 = float(input("Enter 3rd Side:"))

if (side1==side2==side3):
    print("Euilateral Triangle")
```

```
elif(side1==side2 or side1==side3 or side2==side3):
    print("Isosceles Triangle")
else:
    print("Scaler Triangle")
```

10) WAP to find the second largest number among three user input numbers.

```
num1 = int(input("Enter 1st Number:"))
num2 = int(input("Enter 2nd Number:"))
num3 = int(input("Enter 3rd Number:"))

if (num1 > num2 and num1 < num3) or (num1 > num3 and num1 < num2):
    second_largest = num1
elif (num2 > num1 and num2 < num3) or (num2 > num3 and num2 < num1):
    second_largest = num2
else:
    second_largest = num3

print("The second largest number is:", second_largest)
```

```
Enter 1st Number: 12
Enter 2nd Number: 7
Enter 3rd Number: 9

The second largest number is: 9
```

11) WAP to calculate electricity bill based on following criteria. Which takes the unit from the user.

a. First 1 to 50 units – Rs. 2.60/unit

b. Next 50 to 100 units – Rs. 3.25/unit

c. Next 100 to 200 units – Rs. 5.26/unit

d. above 200 units – Rs. 8.45/unit

```
unit=int(input("Enter unit:"))
if unit>=1 and unit<=50:
     print(unit*2.60)
elif unit>50 and unit<=100:
     a=50*2.60
     b=unit-50
     c=b*3.25
     print(a+c)
elif unit>100 and unit<=200:
     a=50*2.60
     b=50*3.25
```

```
      c=unit-100
      d=c*5.26
      print(a+b+d)
elif unit>200:
      a=50*2.60
      b=50*3.25
      c=100*5.26
      d=unit-200
      e=d*8.45
      print(a+b+c+e)

Enter unit: 250

1241.0
```