

9/9/2025 (Day - 5)

write a program to print eligibility for voting in india

→ age = int(input("enter a value:"))
country = input("enter a country:")

region = country.lower()

print(region)

if (age == 18 and country == "india"):
 print("eligible for voting")

else:

print("not eligible for voting")

write a program to check the given num is +ve, -ve, zero

→ num = float(input("enter a number:"))

if (num > 0):

print("+ve")

else:

if (num < 0):

print("-ve")

else:

print("zero")

take input percentage value from user and print their result
85-100 ==> distinction
60-84 ==> first class
50-60 ==> second class
35-49 ==> pass
0-30 ==> fail

→ per = float(input("enter a percentage:"))

if (per >= 85 and per <= 100):

print("distinction")


```
elif (per >= 60 and per <= 84):
```

```
    print("first class")
```

```
elif (per >= 50 and per <= 60):
```

```
    print("second class")
```

```
elif (per >= 35 and per <= 49):
```

```
    print("Pass")
```

```
elif (per >= 0 and per <= 34):
```

```
    print("fail")
```

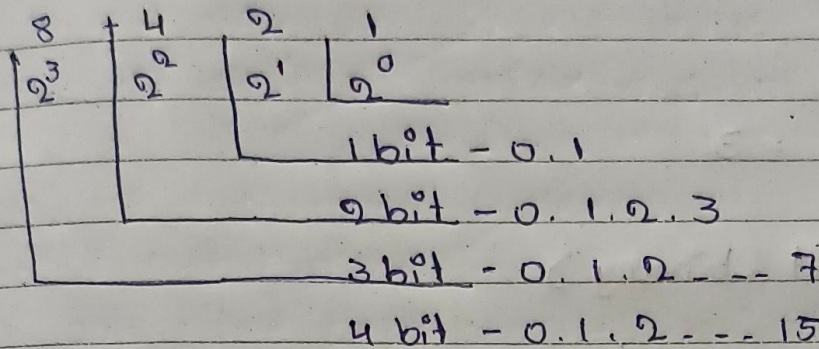
```
else:
```

```
    print("Invalid input")
```


10/9/2025 (day-6)

* Bitwise operators [formal 2^n ($2^{\text{Power } n}$)]

$\& \mid \sim \gg \ll$



2^0	2^1	2^0	2^2	2^1	2^0
0	0	0	0	0	0
1	0	0	0	0	0
0	1	0	0	1	0
1	0	1	0	0	1
0	1	1	0	1	0
1	0	1	1	0	1
0	1	1	1	1	0
1	0	1	1	1	1

* Right shift \gg

TTU	TH	H	T	U
1	2	4	5	
1	2	4		

5 ignore

* Left shift \ll

TTU	TH	H	T	U
1	2	4	5	
1	2	4	5	0
1	2	4	5	0

* Right shift $13 \gg 2$ (binary)

$$\begin{array}{cccc}
 2^3 & 2^2 & 2^1 & 2^0 \\
 8 & 4 & 2 & 1 \\
 1 & 1 & 0 & 1 \\
 & 1 & 1 & 0 \\
 & & 1 & 1 = 3
 \end{array}$$

* $13 \ll 2$ left shift (binary)

$$\begin{array}{cccccc}
 2^5 & 2^4 & 2^3 & 2^2 & 2^1 & 2^0 \\
 32 & 16 & 8 & 4 & 2 & 1 \\
 & 1 & 1 & 0 & 1 & 0 \\
 1 & 1 & 0 & 1 & 0 & 0 \\
 32 & 16 & & 4 & & \\
 & & & & & = 52
 \end{array}$$

$$12 \Rightarrow 1100$$

$$5 \Rightarrow 0101$$

$$1 \Rightarrow 1101 = 13$$

$$12 \Rightarrow 1100$$

$$5 \Rightarrow 0101$$

$$4 \Rightarrow 0101 = 4$$

* nested if else:

syntax:

if (cond1): #outer if

 if (cond2): #inner if

 statements of inner if

 else:

else:

 statements of outer else


```
ex: n = int(input())
```

```
if (n >= 0)
```

```
    if (n > 0)
```

```
        print("+ve")
```

```
    else:
```

```
        print("zero")
```

```
else:
```

```
    print("-ve")
```