

IF, elif & else Statements

① If, elif, and else ?

"powerful tools for controlling the flow of your program based on different conditions."

decision making, determines which block of code gets executed.

Syntax

```
if condition:
```

```
    # code to execute if condition = True
```

```
elif condition2:
```

```
    # code to execute if condition 2 = False
```

```
    # if condition 2 is True.
```

```
else:
```

```
    # code to execute if neither cond1 nor  
    # cond2 is True.
```

Problem Statement - I

- ① → Write a Python program that shows battery level with messages like "Full!", "charging", or "Low, charge now!".
- Use if-elif-else to handle full, charging, & low (<20%) battery states.

code

```
battery_level = int(input("Enter battery level (0-100)"))

if battery_level >= 80:
    print("Battery is Fully charged!")

elif battery_level >= 50:
    print("Battery is partially charged!")

elif battery_level >= 20:
    print("Battery is low!")

else:
    print("Battery is low, please charge!")
```

Problem Statement - 2

Q

→ Build a Python calculator using
if - elif - else to handle ~~addition~~

- 1) addition.
- 4) remainder
- 2) Subtraction.
- 5) Square
- 3) multiplication
- 6) cube

operations.

→ Use clear logic to choose the right
operation based on user i/p.

code

```
print("### Select your choice! ###")
print("1. addition")
print("2. Subtraction")
print("3. multiplication")
print("4. remainder")
print("5. Square")
print("6. cube")
```

```
choice = int(input("Select your choice(1-6): "))
```

```
a = int(input("Enter 1st no: "))
```

```
b = int(input("Enter 2nd no: "))
```

```
if choice == 1:  
    print("Addition is: ", a+b)  
  
elif choice == 2:  
    print("Subtraction is: ", a-b)  
  
elif choice == 3:  
    print("multiplication is: ", a*b)  
  
elif choice == 4:  
    print("remainder is: ", a%b)  
  
elif choice == 5:  
    print("Square of 1st no: ", a**2)  
    print("Square of 2nd no: ", b**2)  
  
elif choice == 6:  
    print("cube of 1st no: ", a**3)  
    print("cube of 2nd no: ", b**3)  
  
else:  
    print("choice is invalid, enter b/w (1-6)")
```