Day 6

If Else Conditional Statements in Python:

What is a Conditional Statement?

A conditional statement is used to make decisions in a program.

Python checks a condition:

- If it is True, some code runs
- If it is False, some other code runs

if Statement

Syntax

> *if condition:*
> *# code runs if condition is True*

if–else Statement

Syntax

> *if condition:*
> *# runs if True*
> *else:*
> *# runs if False*

if–elif–else Statement: Used for multiple conditions

Syntax

> *if condition1:*
> *# code*
> *elif condition2:*
> *# code*
> *else:*
> *# code*

Example: taking user age as the input and printing on the screen.


```
1  a = int(input("Enter your age: "))
2  print("You entered: ", a)
```

```
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● PS E:\Python\Day1-10\Day6> python main.py
Enter your age: 5
You entered:  5
```

Example: using the "if"

```
1    a = int(input("Enter your age: "))
2    print("You entered: ", a)
3    if(a>=18):
4        print("You are eligible to vote.")
```

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```
PS E:\Python\Day1-10\Day6> python main.py
Enter your age: 19
You entered:  19
You are eligible to vote.
```

Example: using the "if-else"

```
1    a = int(input("Enter your age: "))
2    print("You entered: ", a)
3    if(a>=18):
4        print("You are eligible to vote.")
5    else:
6        print("You are not eligible to vote.")
```

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```
PS E:\Python\Day1-10\Day6> python main.py
Enter your age: 3
You entered:  3
You are not eligible to vote.
```

Example: using "if-elif-else"

```
1    a = int(input("Enter your age: "))
2    print("You entered: ", a)
3    if(a>=18):
4        print("You are eligible to vote.")
5    elif(a==0):
6        print("Age cannot be zero.")
7    else:
8        print("You are not eligible to vote.")
```

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```
PS E:\Python\Day1-10\Day6> python main.py
Enter your age: 0
You entered:  0
Age cannot be zero.
```

Example: nested if-else

```
10    age = 20
11    citizen = True
12
13    if age >= 18:
14        if citizen:
15            print("Eligible to vote")
```

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```
PS E:\Python\Day1-10\Day6> python main.py
Eligible to vote
```

Example: Short-Hand if–else (Ternary Operator)

```
17    age = 17
18    result = "Adult" if age >= 18 else "Minor"
19    print(result)
```

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```
PS E:\Python\Day1-10\Day6> python main.py
Minor
```

Conditions & Comparison Operators:

Operator	Meaning
==	equal
!=	not equal
>	greater than
<	less than
>=	greater or equal
<=	less or equal

Summary:

- if–else is used for decision making
- if runs when condition is True

- else runs when condition is False
- elif is used for multiple conditions
- Use comparison and logical operators
- Indentation is very important
- Ternary operator is short form of if–else

--The End--