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Conditional Expression

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- Sometime we want to display PUBG on our phone if the day is Sunday.
- Sometime we ordered Tiramisu online if the day is sunny.
- Sometime we go hiking if our parents allow.

All these decision which depends on a Condition being met.

In a python programming too, we must be able to execute instruction on a condition(s) being met. This is what condition are for.

If, else & elif in python:

If else & elif statement are the multiway decision taken by our program due to certain condition in our code.

Syntax:

```
if (condition1):  
    print("yes")
```

→ If Condition 1 is true.

```
elif (condition2):  
    print("NO")
```

→ If Condition 2 is true.

```
else:  
    print("Maybe")
```

→ otherwise.

Code Example :

```
a = 22
if (a > 9)
    print("Greater")
else:
    print("Lesser")
```

Quick Quiz:-

Write a program to print yes when the age entered by the user is greater than equal to 18.

Relational Operators

Relational operators are used to evaluate conditions inside the if statements. Some examples of relational operators are:

$== \rightarrow$ Equal^s

$>= \rightarrow$ Greater than / Equal to

$<=$, etc.

Logical Operators : Example

In python logical operators operate on conditional statement. Example.

1] And && \rightarrow

True if both operands are true else false.

2] Or || \rightarrow True if at least one operand is true else false.

3] Not ! \rightarrow Inverts true to false & false to true.

Elif Clause :-

Elif in python means [else if]. An if statement can be chained together with a lot of these elif statement followed by an else statement.


```
if (condition1):  
    # code  
elif (condition2):  
    # code  
elif (condition3):  
    # code  
:  
else:  
    # code
```

→ This ladder will stop once a condition in an if or elif is met.

Important Note's

1] There can be any number of elif statement.

2] Last else is executed only if all the condition inside elif fails.

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Practice Set

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- 1] Write a program to find greatest of 3 numbers entered by the user.
- 2] Write a program to find out whether a student is pass or failed, if it require total 40% & at least 33% in each subject to pass. Assume 3 subject & take marks as an input from the user.
- 3] A spam Comment is defined as a text containing following keywords.
"make a lot of money", "buy now",
"subjective this", "click this", write a program to detect these spam.
- 4] Write a program to find whether a given username contains less than 10 characters or not.
- 5] Write a program which finds out whether a given name is present in a list or not.
- 6] Write a program to calculate the grade of a student from his marks from the following scheme:

90 - 100 \rightarrow Ex

80 - 90 \rightarrow A

70 - 80 \rightarrow B

60 - 70 \rightarrow C

50 - 60 \rightarrow D

< 50 \rightarrow F

7] Write a program to find out whether a given post is talking about "Tejas" or not.