

MORE ON PYTHON

CLASS VII

CH-6 PERIOD -4

CHANGING YOUR TOMORROW

OUTCOME OF THE CLASS

- *Precedence of operator*
- *Conditional statements in python*
- *Algorithims*

Precedence of Operator

- When more than one operator is to be evaluated in an expression, the Python interpreter decides at run time which operator should be evaluated first.
- This decision is based on the precedence and associativity of the operators

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Precedence is the priority order of an operator according to which it is evaluated. Each operator has precedence associated with it. This precedence is used to determine the order of evaluation of an expression.

- **Associativity** if two operators have the same precedence (priority), then they are either evaluated from "Left to Right" or from "Right to Left" based on their level. It is termed as associativity, which tells the direction of execution of operators ("Left to Right" or "Right to Left")

Precedence hierarchy

Operator	Description
()	Parenthesis
**	Exponentiation
+ a, -a	+ Unary , - Unary
*, /, //, %	Multiplication, Division, Floor Division, Modulus (Remainder)
+, -	Binary addition and subtraction
< , <=, >, >=, = , !=	Relational operators
not and or	Boolean / Logical operators

Examples

$$12 + 3 * 4 - 6 / 2$$

Solution

$$= 12 + 12 - 6 / 2$$

$$= 12 + 12 - 3.0$$

$$= 24 - 3.0$$

$$= 21.0$$

$$(12 + 3) * 4 - 6 / 2$$

Solution

$$= 15 * 4 - 6 / 2$$

$$= 60 - 6 / 2$$

$$= 60 - 3.0$$

$$= 57.0$$

$$12 + 3 * (4 - 6) / 2$$

Solution

$$= 12 + 3 * (-2) / 2$$

$$= 12 + (-6) / 2$$

$$= 12 - 3.0$$

$$= 9.0$$

CONDITIONAL STATEMENTS IN PYTHON

Let us take a simple real-life example. It is rainy season and you want to go out and play with your friends. Before you move out to play, you want to be sure that the weather will remain clear throughout the day or not.

In this case, first you will check:

CONDITION	PLAN OF ACTION
If the weather is clear	Then you will go out and call your friends to play.
If it is raining	You will sit at home and enjoy watching television or probably read a story book.



Let us take another example. You need to have a valid driving license for driving any vehicle. To apply for a driving license, your age should be greater than or equal to 18.

CONDITION	PLAN OF ACTION
If your age is greater than or equal to 18	Then you are eligible to apply for a driving license.
If your age is less than 18	Then you are not eligible to apply for a driving license.



➤ ALGORITHM

An **Algorithm** is a well-defined step-by-step procedure to solve a problem. It helps us to understand the problem and its solution in a better way.

Algorithm to apply for a driving license:

1. Input your age.
2. Check your age. If your age is greater than 18, then you can apply for the license.
3. If it is less than 18, then you are not eligible to apply for a driving license.

➤ FLOWCHART

It is a pictorial representation of the flow of steps to solve a problem.

Flowchart to check whether you can apply for a driving license or not.

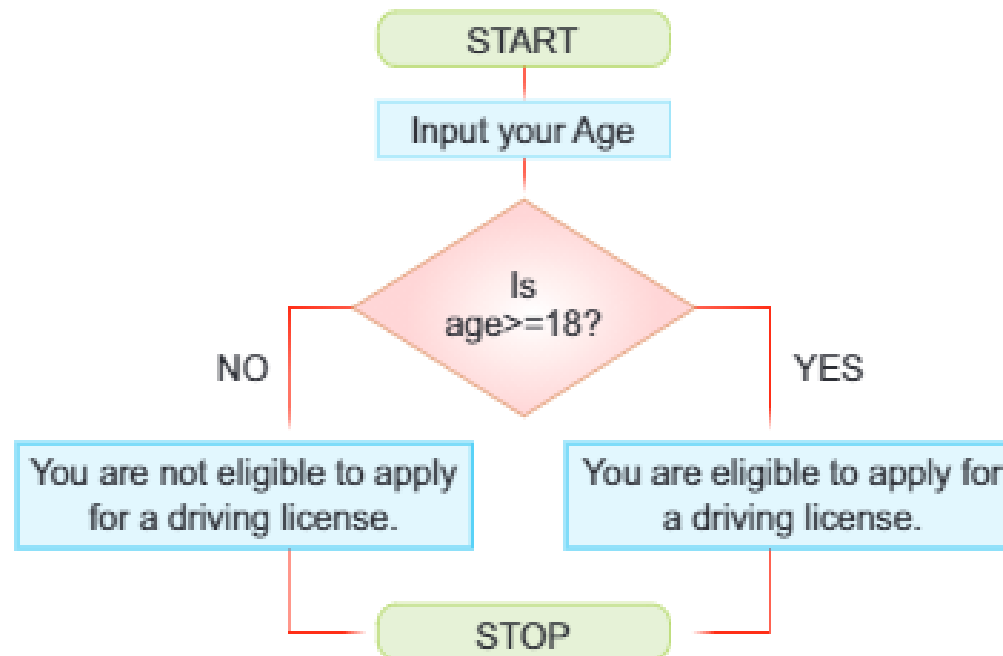


Figure 6.9: Flowchart

HOME ASSIGNMENT

- What do you mean by conditional statement?
- What is algorithm?
- What is Flow chart ?
- Write a algorithm to prepare a tea?
- Draw a flow chart to input a number display the no is even or odd?

THANKING YOU
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