

# Study Sheet -4 | Lower Secondary Stage (6-8)

1<sup>st</sup> Semester | 2023-2024

**Subject:** ICT

**Chapter:** 3  
(Programming Language) List in Python

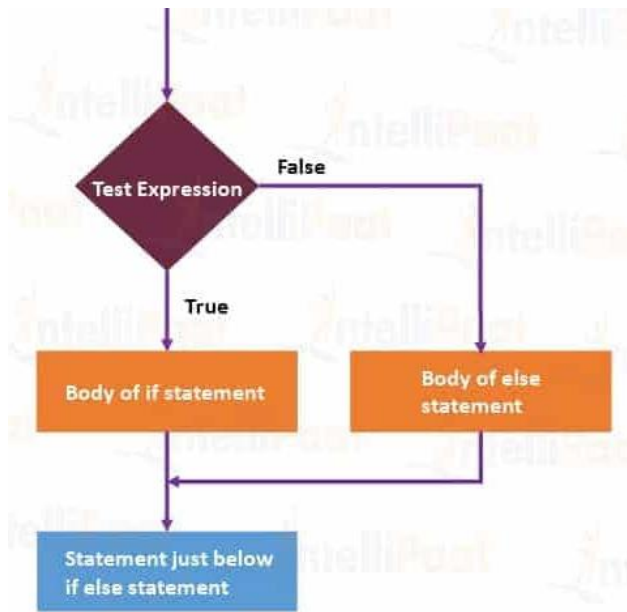
Grade: 7

Objectives:

- Use if statements to control whether or not a block of code is executed.
- Use else to execute a block of code when an if condition is not true.

## Syntax of if ... else

if test expression:  
Code to run when test expression is TRUE  
else:  
Code to run when test expression is FALSE



The if...else statement evaluates the test expression

and will execute the body of if only when the test condition is True.

If the condition is False, the body of the else is executed.

## What are Python Conditions?

Equals to:  $x == y$

Not Equals to:  $x != y$

Less than:  $x < y$

Less than or equal to:  $x <= y$

More than:  $x > y$

More than or equal to:  $x >= y$

### Examples:

- 1- Write a program that:
  - a- Input the weather temperature
  - b- If the weather temperature is greater than 22 print the weather temperature and the word "Hot"  
else print the weather temperature and the word "Cold"
  
- 2- Write a program that:
  - a- Calculate the area of a circle  
 $Area=3.14*r^2$
  - b- If the area of the circle is bigger than 100 print "large circle"  
else print "small circle"
  
- 3- Write a program that:
  - a. Input and print your name.
  - b. Input the 1<sup>st</sup> and the 2<sup>nd</sup> Mark then calculate and print the average.  
 $Average = (first + second) / 2$Then
  - c. If the Average is greater than or equal to 50 print the word("Pass")  
else print the word ("Fail")
  
- 4- Write a program to check if a number is positive or negative.  
(If a number is greater than zero, it is a positive number. If a number is less than zero, it is a negative number.)
  
- 5- Write a program that compares two numbers and prints the largest
  
- 6- Write a program that prints whether a number is odd or even You will need to find the remainder (Mod → % in Python)  
Mod finds the remainder of the division
  
- 7- Write a program that:
  - a. Input your name.
  - b. Print your name.
  - c. Input your Birth\_Year
  - d. Calculate your age.
  - e. If your age is greater than 18 print (I'm an Adult)  
else print (I'm a child)