***Test***

5.What is data type ? Types of Data Types and examples.

1. Primitive Data type

2.Non primitive type

* **1.Primitive data type :**

It can store single value

eg:int,float,string,boolen,none,complex

primitives are immutable

stored in the stack memory with their value

call /pass by value

* **2.Non primitive Data type :**

It can be store the multiple values at a time

eg: List,tuples,dictionaries ,sets,frozensets

these are mutable

uses both stack ,heap

call/pass reference

* **Operators in python :-**

Operators are used to perfoem a specific operation among the multiple operands

We have different operators classified in python :-

Arithemetic operator (+,-,/,//,\*\*)

Assignment operator (=,+=,-=,//=,\*\*=)

Logical operator ( And,or,not)

Bitwise operator ( <,> )

Identity operator ( is,isnot)

Comparision operator ( ==,!=,>=,<=<: >:)

Membership operators (in,not in)

Identity operators: in python, the identity operators is “is” and “is not “ . its used to compare if two variables refer to same object in memory

The identity operators compares memory locations, unlike the equality operators “==” and “!=” which compare values

Every object in python has an identity a type and a value o

value exists in a sequence

In : returns true if the specified value in present in the sequence

Not in : Returns true if the specified value is not present in the sequence

* **Functions in user defined :**

1.Regular /standard functions: These will have static behaviour

2.Parameterised function : These will expects one or more arguments to have dynamic behaviour

These are four types

Default parameters

Keyword arguments

positional arguments

arbitrary arguments

3.Void functions : Fuctions without returning anything

4.Return function : Fuctions with returning something

5.Recursive functions : Fuctions can call themselves for repetitive solvings

6.Higer order funtions : functions can be take another function as a argument or return a function then it can be called as higer order function

7.Generator functions : Generator function which can use yield

8.Lamda funtions/anonymous : Function without a name that can be used for one time operations