Definition in Python:

In Python, a definition is the process of creating a function so that it can be reused multiple times in a program.
A function is defined using the keyword `def`, followed by the function name and parentheses `()`.

Once defined, the function can be called anywhere in the program.

Syntax of Function Definition:

```
def function_name(parameters):

    """docstring (optional)"""

    # function body

    return value
```

Parts of a Function Definition

1. def keyword
   Tells Python that a function is being created

2. Function name
   Used to call the function later

3. Parameters (optional)
   Values passed to the function

4. Function body
   Code that runs when function is called

5. Return statement (optional)
   Sends result back to the caller

Python Data Types

What is a Data Type?

A data type defines the **type of value a variable can store** in Python.

In Python, **data types define the kind of value a variable can store**. Python automatically assigns a data type when a value is given to a variable, so it is called a **dynamically typed language**.

Data types help Python understand **how data should be stored, processed, and used**.

Python Data Types

Category	Data Type	Description	Example
Numeric	int	Stores whole numbers	x = 10
Text	float	Stores decimal numbers	price = 99.5
	complex	Stores complex numbers	z = 2 + 3j
Text	str	Stores text/characters	name = 'Python'
Sequence	list	Ordered, mutable collection	nums = [1, 2, 3]
Set	tuple	Ordered, immutable collection	colors = ('red', 'blue")
	range	Sequence of numbers	r = range(5)
Set	set	Unordered, no duplicates	s = {1, 2, 3}
frozenset	frozenset	Immutable set	fs = frozenset([1,2,3])
Mapping	dict	Key-value pairs	student = {'name': Ram', 'age': 20}
Boolean	bool	True or False values	is_valid = True
Binary	bytes	Immutable binary data	b = b'abc'
None	bytearray	Mutable binary data	ba = bytearray(3)
NoneType	NoneType	Represents no value	result = None