8. Functions

Theory:

• Defining functions in Python.

• Different types of functions: with/without parameters, with/without return values.

• Anonymous functions (lambda functions).

 **Defining Functions in Python**  
Functions are blocks of reusable code that perform specific tasks. To define a function, you use the def keyword followed by the function name and optional parameters.

 **Different Types of Functions**

* **Without Parameters and Without Return Values**:  
  Functions that do not accept any inputs and do not return a value. These are typically used for performing tasks or printing outputs.
* **With Parameters and Without Return Values**:  
  Functions that accept inputs (parameters) but do not return any values. They often perform actions based on the input provided.
* **With Parameters and With Return Values**:

Functions that accept inputs (parameters) and return a value based on those inputs. These functions are used when the result of an operation needs to be used elsewhere.

 **Anonymous Functions (Lambda Functions)**

Lambda functions are small, unnamed functions defined using the lambda keyword.

* Syntax: lambda arguments: expression