

IIDT-Blackbucks short term internship FSD session 08-APSHE

The eighth session is about functions in python Lambda functions, map functions, filter functions, reduce functions, and basics of OOPS concept.

Topics covered:

- 1.Functions
- 2.Lambda functions
- 3.Map functions
- 4.Filter functions
- 5.Reduce functions
- 6.OOPS

Key points:

- Functions are the independent block of instructions which are used for performing some task.
- Functions are classified into two types one is Built-in functions and user defined functions.
- Built-in functions which are created by the developers of python examples of built-in functions are len(), print(), input(),....
- User defined functions which are developed or defined by the user based on his requirements.
- Def keyword is used for defining user defined functions.
- Arguments are the values that are provided to the function. which are used for the execution of function.
- Return statement is used for returning some values of output from the function space to function call.
- Return is a final statement of the block, By using return we can return any type of data, By using return we can return any number of data, If we return multiple data then output format is a tuple.
- Variables are used for defining the scope of accessibility of variables in case of functions.
- In functions we have three types of variables. Local variables, global variables, non-local variables.
- Lambda functions are the anonymous functions, these functions are the single line functions.

- Lambda functions will take multiple arguments, these functions will take only one expression it is evaluated or returned.
- The map functions in python takes in a function and a iterable. Map function returns a map object which is an iterator .
- The function that works as an iterator to return a result after applying a function to every item of an iterable. It is used when you want to apply a single transformation function to all the iterable.
- The filter functions filters the given sequence with the help of a function that tests each element in the sequence to be true or not.
- The filter in python is used for selecting particular data from a large set of data.
- Importing is the process of accessing the properties of one module in to another module. Import keyword is used for performing importing.
- Aliasing it is the process of renaming the imported module or functions or classes. We can perform aliasing by using AS keyword.
- The reduce function is a part of python functions. It is used to apply a function to all elements of a list , effectively reducing the list to a single output.
- OOPS means Object-Oriented programming structure it is an best approach for solving programming problems by creating projects. Objects are nothing but real world entity means living or non-living organisms which has states and behaviours states means properties and behaviours means functionalities.
- Python is a multi-paradigm programming language it supports different programming approaches.
- Paradigm standards perspective or set of ideas it supports both functional and oops.
- Important concepts of the oops are Encapsulation, Aggregation, Inheritance, Polymorphism, Abstraction .