

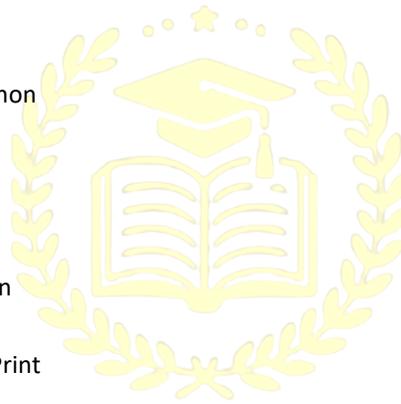
Combo Programming Languages

Python, C, C++

4-Months | Duration

PYTHON

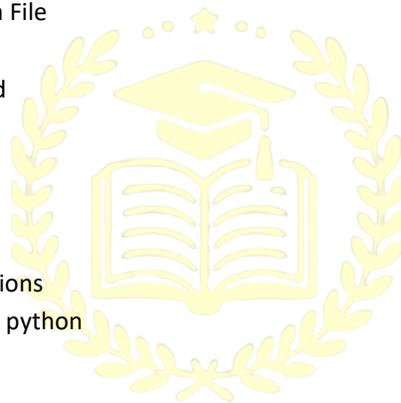
- Python Programme Outcome
- Python First Step
- Installing Python
- Working in Python
- Using Python as a Calculator
- Python First programe
- Variable in Python
- What is Variable
- Variable Assignment
- Naming Rules for Variables
- Datatypes in Python
- Numeric Data Type
- Boolean
- String
- Set Data Type
- Mapping Data Type
- Operators in Python
- Types of Operator In Python
- Reading Input
- keyboard input
- Input as an integer
- input as a float
- Print Statement in Python
- Print Example in Python
- Python end Keyword in Print
- Decision Making
- If Statements
- Indentation in Python
- Colon(:) in Python
- If - Else in Python
- Nested IF
- Use of 'AND' Operator with 'If'
- Loop In Python
- While Loop In Python
- Python While with Else Statement
- Use of If - Else Within While Block
- For Loop In Python
- For Loop With List
- The Range() Function
- Python For Loop with Range()
- Python- Break,Continue and Pass
- Python Break statement



- Python Continue statement
- Pass statement in Python()
- What is List
- How to Create a List
- Accessing List Element
- Slicing List In Python
- Modify List in Python
- Delete an Item from the List
- Python- Tuple
- What is Tuple
- How to Create a Tuple
- Create a Tuple with single Element
- Accessing Element of Tuple
- Slicing Tuple In Python
- Loop Through a Tuple
- Update Tuple in Python
- Delete a Tuple
- Useful functions in Tuple
- Python- Dictionary
- What is a Dictionary
- How to Create a Dictionary
- Create a Tuple with single Element
- Accessing Element of a Dictionary
- Loop Through a Dictionary
- Update Dictionary in Python
- Delete an item from the Dictionary
- Python- SET
- What is a Set
- How to Create a Set
- Access Item Of The Set
- Add Element to The Set
- Delete Element From The Set/li>
- Set Operations In Python
- Python- String
- What is a String
- How to Create a String in Python
- Access Character and Slicing in String
- Python String Operation
- String Format Method
- Important Method in String
- Functions
- What is Function
- Types of Function
- How to Create a Function



- Call a Function
- Function Argument And Return Keyword
- Different Type of argument
- Recursive Function
- Modules
- Defining Modules
- Types of Module
- Built in Module
- User Define Module
- Import Python Module
- Exception Handling
- Handling an Exception
- Python Finally block
- Raise an Exception
- else clause with try-except
- File Handling in Python
- What is a File?
- Create, Open and Close a File
- Python Read a File
- Using 'with' as a keyword
- Python File Write
- Append Data to a File
- Python File Modes
- Errors and Exceptions
- Syntax Errors and Exceptions
- Object? Orientation with python
- A First Look at Classes
- Class Definition Syntax
- Class Objects
- Inheritance in Python
- A Program with Multiple Classes
- Python Inheritance Syntax
- Simple Inheritance in Python
- Method Overriding in Python
- Using super() function
- Constructor in Inheritance
- Calling Parameterised Constructor
- Types of Inheritance
- What is Polymorphism
- polymorphism and Inheritance
- Python Database Connection
- Why Database Connection?
- Connecting **MYSQL**



C Programming Language

Module 1: Introduction to C

- What is Programming?
- What is C Language?
- Structure of C Program
- First C Program (Hello World)

Module 2: Basic Syntax & Data Types

- Keywords
- Variables
- Data Types
 - int, float, char, double
- Size of Data Types
- Type Casting
- Input / Output
 - printf(), scanf()

Module 3: Operators in C

- Arithmetic Operators
- Relational Operators
- Logical Operators
- Assignment Operators
- Increment / Decrement
- Bitwise Operators



Module 4: Control Statements

Conditional Statements

- if
- if-else
- else-if ladder
- nested if
- switch case
- Looping Statements
 - while loop
 - do-while loop
 - for loop
 - nested loops
- Jump Statements
 - break
 - continue
 - goto

- return

Module 5: Functions

- What is Function?
- Types of Functions
 - Library Functions
 - User Defined Functions
- Function Declaration, Definition & Call
- Function with Arguments & Return Value

Module 6: Arrays

- Introduction and all about to Array

Module 7: Strings

- Introduction to String
- String Declaration & Initialization

Module 8: File Handling

- Reading & Writing Files

C++ Programming Language



Module 1: Introduction to C++

- What is Programming?
- What is C++ Language?
- Structure of C++ Program
- First C++ Program (Hello World)

Module 2: Basic Syntax & Data Types

- Keywords & Identifiers
- Variables & Constants
- Data Types
- int, float, double, char, bool
- Type Casting
- Input / Output
- cin, cout

Module 3: Operators in C++

- Arithmetic Operators
- Relational Operators
- Logical Operators
- Assignment Operators

- Increment / Decrement Operators
- Bitwise Operators
- sizeof Operator

Module 4: Control Statements

Conditional Statements

- if
- if-else
- else-if ladder
- nested if
- switch case
- Looping Statements
- while loop
- do-while loop
- for loop
- nested loops
- Jump Statements
- break
- continue
- goto
- return



Module 5: Functions

- Introduction to Functions
- Function Declaration & Definition
- Function Calling
- Function with Arguments & Return Value
- Default Arguments

Module 6: Object Oriented Programming (OOPs)

- Introduction to OOP
- Class & Object
- Access Specifiers
- public, private, protected
- Constructors
- Default Constructor
- Parameterized Constructor
- Destructor
- Pointer

Module 7: Inheritance

Module 8: Polymorphism

Module 9: Encapsulation & Abstraction

Module 10: Arrays & Strings

Module 11: Exception Handling

Module 12: File Handling

