



Hewlett Packard Enterprise

Course Datasheet

Python

Python is a general-purpose programming language which can be used for a wide variety of applications. Python can be easy to pick up whether you're a first time programmer or you're experienced with other languages. A great language for beginners because of its readability and other structural elements are designed to make it easy to understand. Python is an interpreted language, which means that programs written in Python don't need to be compiled in order to run. It powers some of the world's most complex applications, websites, and found in a variety of different applications.

Course Objective

The 60 hours comprehensive training program will help a learner to understand the programming concepts using Python language.

On completion of the training, a learner will have good understanding on concepts like Python Scripts, File Operations in Python, Modules & Packages, and Classes & Objects etc.

Prerequisite

There are no prerequisite for this training, however familiarity with basics of programming language and HTML will be beneficial.

Course Modules

Chapter 01 – Getting Started

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Introduction

Brief History and Release Versions

Installation of Python – Windows, Linux and Mac

Python Console

Environment Variables

IDLE

- Understanding Python Blocks
- Hello World Example
- Keywords and Identifier

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- Statement and Comments

Chapter 02 – Variables, Data Types and Operators

- Variables
- Data Types
 - Numbers
 - List
 - Tuple
 - Strings
 - Set
 - Dictionary
 - Arrays
- Operators
 - Arithmetic Operators
 - Relational Operators
 - Logical Operators
 - Bitwise Operators
 - Assignment Operators
 - Special Operators

Chapter 03 – Conditionals and Loops

- if, if-else, elif, and nested conditionals
- Type of Loops
 - for loop
 - while loop
 - nested loops
- Loop Control Statements
 - break statement
 - continue statement
 - pass statement

Chapter 04 – Function

- Defining and Function
- Calling a Function
- Function Arguments
- Global vs Local Variables
- Anonymous Functions
- The return statement
- Recursion

Chapter 05 – Modules & Package

- About Modules in Python
- Code Reusability
- Import statements
- About Packages
- Import Module from a Package

Chapter 06 – Python Files I/O

- Opening and Closing Files
- Python File Modes
- Reading and Writing Files

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- Python File Methods
- Directories in Python

Chapter 07 – Python Errors and Built-in Exceptions

- Python Built-in Exceptions
- Exception Handling

Chapter 08 – Classes & Objects

- Overview of OOP Terminologies
- Creating a Class
- Variables of Class
- Creating an Object
- Accessing Attributes
- Built-In Class Attributes
- Constructors
- Deleting Attributes and Objects
- Method Overriding
- Operator Overloading
- Inheritance
- Polymorphism