Python Training

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Table of **Contents:**

Program **Overview:**

This course covers the fundamentals of Python and how to apply it to real-world applications. The modules, lesson-end projects, and assignments comprising the curriculum cover data operations in Python, strings, conditional statements, error handling, shell scripting, web scraping and the commonly used Python web framework: Django.

Program **Features:**

> 36 hours of blended learning

> 6 hours of Online self-paced learning

> 30 hours of instructor-led training

> Five lesson-end knowledge checks and 1 real-life course-end project

> 20+ assisted practices on all modules

> Industry-recognized course completion certificate

Delivery **Mode:**

Blended - Online self-paced learning and live virtual classroom

Prerequisites:

No prior programming knowledge or experience is necessary to take this online Python training course

Target **Audience:**

> Software developers

> Programming enthusiasts

> Technical leads

> Architects

Key Learning **Outcomes:**

By the end of this Python online training course, you will be able to:

> Understand basic Python concepts

> Implement file handling and exception handling techniques

> Understand operators, sets, methods, and dictionaries in-depth

> Run commands by implementing conditional statements, loops, and functions

> Perform shell scripting with Python

> Master Python Django and advanced web development in Python

Certification Details and **Criteria:**

> Complete 80% of at least one Live Virtual Class and complete 85% of Online Self-Paced Learning classes.

> No project criteria but pass the Assessment Test with 70 or marks.

Course **Curriculum:**

Self Paced **Curriculum:**

Lesson 01 - Python Basics

> Course Introduction

> Learning Objectives

> Introduction to Python and It s Features

> Python Introduction - Uses and Flavours

> Python Introduction - Why Python

> Software Installation and Environment Setup

> Demo: Software Installation and Environment setup

> Data Types

> Input Output Functions

> Demo: Data Types and Input Output Functions

> Key Takeaways

Lesson 02 - Data Operations

> Learning Objectives
> Data Type Conversion
> Arithematic Operators
> Comparision Operators
> Assignment Operators
> Bitwise Operators
> Demo: Data Operations
> String Methods
> Demo: String Operations
> List Methods
> Demo: List Operations
> Tuple Methods
> Demo: Tuple Operations
> Sets Methods
> Dictionary Methods
> Demo: Dictionary Operations
> Key Takeaway

Lesson 03 - Conditional Statements and Functions

> Learning Objective
> Expressions
> Conditional Statement
> Demo - Conditional Statement
> Loops - for loop
> Loops - while loop
> Demo - Loops
> Functions
> Demo - Functions
> Key Takeaway

Lesson 04 - Error Handling and File Operations

- Learning Objective
- File Handling
- Demo - File Handling
- Errors
- Exceptions
- Demo - Errors and Exceptions
- Logging
- Demo - Logging
- Python Debugger(Pdb Module)
- Demo - Python Debugger
- Objects and Classes
- Objects and functions
- Demo - Object Oriented Programming
- Key Takeaway

Lesson 05 - Shell Scripting and Django

- Learning Objective
- Shell Scripting
- Sys, OS and Sub-Process module
- Reading Writing Files and Working with Date-time Module
- Demo - Shell Scripting in Python
- Web Scrapping
- Demo - Web Scrapping using Beautiful Soup
- Django - Intro and Architecture
- Demo - Django Installation
- Key Takeaway

Live Virtual Class **Curriculum:**

Lesson 01 - Python Basics

> Introduction
> Software Installations and Setup
> Assisted Practice: Install Python IDLE
> First Python Script
> Data Types
> Input /Output Functions
> Assisted Practice: Basics of Python

Lesson 02 - Data Operations

> Data Type Conversion
> Data Operations
> Assisted Practice: Data Operations
> String Methods
> Assisted Practice: String Operations
> List Methods
> Assisted Practice: List Operations
> Tuple Methods
> Assisted Practice: Tuple Operations
> Sets
> Dictionaries
> Assisted Practice: Dictionary Operations

Lesson 03 - Conditional Statements and Functions

> Expressions
> Conditional Statements
> Assisted Practice: If else
> Loops
> Assisted Practice: For Loop Iterations
> Assisted Practice: while Loop Iterations
> Functions
> Assisted Practice: Functions

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Lesson 04 - Error Handling and File Operations

> File Handling
> Assisted Practice: File Handling
> Errors and Exceptions
> Assisted Practice: Errors and exceptions
> Debugging in Python
> Assisted Practice: Logging
> pdb Module
> Assisted Practice: pdb Print Command
> Assisted Practice: next and step Commands
> Assisted Practice: Breakpoints
> Assisted Practice: unt Command
> Assisted Practice: display Command
> Assisted Practice: w Command
> Object-Oriented Programming
> Assisted Practice: Classes and Objects

Lesson 05 - Shell Scripting and Django

> Shell Scripting
> Shell Scripting with Python
> Assisted Practice: Shell Scripting in Python
> Web Scraping
> Django
> Assisted Practice: Web scraping

Course End **Project:**

Employee Salary Appraisal

As the head of a company's human resources department, you have to design a set of rules or parameters you consider to be important for employee appraisal. To do this you will have to create a username and password for the interface you are creating, then create a class that has the parameters needed for the appraisal, such as rating, discipline, and contribution. You then must design an equation for appraisal calculation based on class attributes.

About **Us:**

Simplilearn is the world's #1 online bootcamp provider that enables learners through rigorous and highly specialized training. We focus on emerging technologies and processes that are transforming the digital world, at a fraction of the cost and time as traditional approaches. Over one million professionals and 2000 corporate training organizations have harnessed our award-winning programs to achieve their career and business goals.

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