Faysal Aziz

Python for beginners:

FA-0470 · 5 days

Software Development

Introduction

(Comprehensive 5 days)

This is a comprehensive course designed for learners without any prior python or programming knowledge. This is also useful for those who are experienced with other programming languages but not python in particular. There are also those learners who know python but the skills are either rusty or not too familiar with the recent changes in python's syntax. This course is also very useful for them.

The course will give the learner a comprehensive knowledge of python and enable them to move to more advanced topics of any discipline or other intermediate courses as well as seek resources for self learning. The flexibility offered by this course covers a wide spectrum of the python domain.

Following this course, the learner can move to advanced python courses as well as targeted courses for Data Science, Reporting, Machine Learning etc. Although this course is not intended to make "experts" out of learners, it can help grasp more advanced topics for further learning and help the learner to know what to learn next in the field of python.

Learning Outcome:

1. Overview of python basics.
2. IDEs of python.
3. Understand the basic syntax structures
4. Comprehend real world problems into logical steps
5. Formulate Algorithms
6. Formulate Pseudo codes
7. Code in python
8. Develop standalone modules using python
9. Use python for I/O
10. Grasp OOP

11. Develop systems in both functional and OOP
12. Ability to learn added python modules and sub systems

Prerequisites

1. Ability to use a computer
2. Ability to use the internet
3. Manage files and understand basic file systems in the computer
4. Ability to communicate in the English language

Requirements:

1. Computer (PC / Laptop) with at least two screens (for remote learning only)
2. Browser
3. Fast internet connection and full access to google
4. Web camera (for remote learning only)
5. Microphone (for remote learning only)
6. Conferencing software (Zoom / Webex / MS Teams)

Training outline

1. AN INTRODUCTION TO PROGRAMMING

1. What Is Algorithm
2. What Is Programming
3. What Is Program
4. Machine Language
5. Programming Language
6. What Is Translator

2. AN INTRODUCTION TO PYTHON

1. Brief History of Python
2. Python Versions
3. Installing Python
4. IDEs
5. Environment Variables

6. Python Documentation
7. Hello world with python
8. Modes of Programming

3. COLAB NOTEBOOK

1. What Is Colab Notebook
2. Why Colab Notebook Is Important
3. Installing Colab Notebook
4. Main Components of Colab Notebook
5. Modes
6. Exporting Notebook Documents

4. BASIC PYTHON SYNTAX

1. Identifiers
2. Reserved Words
3. Lines and Indentation
4. Comments

5. VARIABLES AND COLLECTIONS IN PYTHON

1. Numbers
2. Python Lists
3. Python Tuples
4. Python Dictionaries
5. Python Sets
6. Copying
7. Python Strings
8. String formatting
9. Regular Expressions

6. PYTHON OPERATORS

1. Arithmetic Operators
2. Comparison (Relational) Operators
3. Assignment Operators

4. Logical Operators
5. Membership Operators
6. Operators Precedence

7. LANGUAGE COMPONENTS

1. Decision Making
2. The if Statement
3. The if else Statement
4. For Loop
5. While Loop
6. Break And Continue

8. FUNCTIONS IN PYTHON

1. Defining Your Own Functions
2. Parameters
3. Function Documentation
4. Passing Collections to a Function
5. Variable Number of Arguments
6. Scope
7. Map
8. Filter
9. Lambda

9. MODULES AND PACKAGES

1. What Are Modules
2. Importing Modules
3. Aliasing
4. Importing Set Of Element From A Module
5. Namespace
6. What Are Packages
7. dir function
8. help function

10. EXCEPTIONS

1. What Is Exception
2. Exception Types
3. Try Except Component
4. Handling General Exception
5. Handling Specific Exception
6. Raise

11. INPUT AND OUTPUT

1. Introduction
2. Access Modes
3. Writing Data to a File
4. Reading Data From a File
5. Read Functions
6. PDF reading
7. XML files

12. OBJECT ORIENTED PROGRAMMING (OOP)

1. What is OOP
2. Why OOP Is Important
3. Classes
4. Attributes
5. Methods
6. Constructor
7. Inheritance
8. Polymorphism
9. Static class

© 2026 Faysal Aziz · Kuala Lumpur