Python Foundations Course

Introduction

This course introduces you to a new, fast-growing and flexible language – Python. Learn how to create Python applications that run on the command line as well as via a GUI using PyQt or via a web application using HTML5.

Early in the course, a project-based learning approach is followed with 10 projects planned to be created in-class. Whilst creating these projects, new concepts will be introduced, ensuring that concepts are delivered in the context of where they can be used in real-world programming.

The course also focuses on Python specifics and strengths, such as lists, function generators and string manipulation. Furthermore, you will learn all the fundamentals of object-oriented programming including classes, objects, interfaces, inheritance, polymorphism, encapsulation and statics.

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Course Content

Introduction to Programming
Programming – Absolute Basics.
Python – A Tool, Not a Reptile.
There is More Than One Python.
Begin Your Python Journey.

Python Syntax Basics
Variables.
Sequence.
Selection.
Iteration.

Using and Creating
Project #1: News break.
Opening a Browser.
Using Functions.
Improving the Program.
Project #2: Secret Message.
Creating Functions.

Using Classes
Object-Oriented Programming.
Project #3: Turtle.
A Simple OOP Example.
Project #4: Send Text Messages.
Project #5: Profanity Editor.

Creating Classes
Project #6: The Movie Website.
Create the Movie Class.
Create the Website.
Class Variables.
Inheritance.
Method Overriding.

User Input and Program Output
Project #7: Student Manager.
Accepting User Input.
Formatting Output.
Improving the Program.

More Object-Oriented Programming
Abstract Classes.
Generic Methods.
Exception Handling.
Packaging Your Code.
PyDoc.

Build a GUI
Project #8: Tkinter Calculator.
Using Tkinter.
Project #9: Temperature.
Converter.
Introduction to PyQt.
Project #10: QStudentManager.
Complete Example with PyQt.

Course Details

Study Mode
PART*TIME*
Frequency: Once Weekly

Duration
24 Hours (12 Lessons of 2 Hours)

Delivery Method
Lectures & Hands-on Practice

Entry Requirements
Good knowledge of English
Basic Computer Skills

€ 395

Study Experience Includes:
Training by a Fully Qualified Developer,
Detailed Courseware.

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