



## Python for Beginners - 40 Hours

### Overview:

Python is good for a very wide range of uses. It is completely object-oriented, so large and complex applications can also be written in it.

The Python language is easy to learn, has an elegant and clear syntax, and yet contains many efficient mechanisms for quickly writing code.

Python interfaces with diverse graphical interfaces, and contains many modules for every use.

This course will give you the all the knowledge to program in Python.

### Outline

#### Introduction and basic data types

- The uses of Python
- Static vs. Managed Vs. Dynamic Languages
- Development Tools
- python data: everything is an object
- Numbers: int, float
- Strings: the str type
- Boolean: the bool type
- Basics of lists
- Input & Output

## Control Flow structures

- if statement
- for loops
- range type and the range() function
- break and continue
- pass keyword
- while loops

## Functions

- defining functions with the def keyword
- default values for parameters
- keyword arguments
- arbitrary argument lists
- unpacking argument lists
- lambda expressions
- nested functions and closures
- Scopes: using the global keyword

## Data Structures

- Python lists (The del statement)
- Looping with in
- Python dictionaries
- Python tuples
- Python sets

## Modules & Packages

- Creating modules in a separate file
- Importing complete modules
- Importing from modules
- Module search path
- “compiling” modules
- The standard library
- dir() function
- Packages

## Input/Output

- Using formatted printing
- opening files
- reading and writing text
- Reading and Writing JSON

## Errors and Exceptions

- Errors & Exceptions
- Handling Exceptions
- Raising Exceptions
- User defined Exceptions
- Cleanup actions with finally

## Classes

- Python namespaces
- Class definition, class object
- Instance Objects
- Method Objects
- Class variables and instance variables
- Inheritance
- Iterators
- Generators

## Python Project

## מבין לקוחותינו:



**לפרטים נוספים נשמח לעמוד לשירותכם,  
צוות מכללת SQLabs מקבוצת SQLink:**

**sqlabsrg@sqlink.com | 03-5416033 / 03-5424691**