



# Python Programming

(Training – Certification – Internship)

(From the Scratch with 4 projects and an

## **Live Classroom Lectures**

## Course Curriculum

#### Part 1: Getting Started with Python

- History of Python.
- Installing Python.
- Introduction to IDE's like Jupyter Notebook, Spyder, Anaconda.
- Architecture and Library Collection in Anaconda.

#### **Part 2: Python Programming Basics**

- Introduction to various Datatypes in Python.
- The Idea Of indentation.
- Understanding Python Interpreter.
- Typecasting in Python.

#### Part 3: Lists, Tuples & Dictionary

- How to Create a List, Tuple and Dicctionary.
- Operations on List, Tuples & Dictionary.
- Compare and Contrast List ,Tuple & Dictionary.

#### Part 4: Control Structures in Python

- If Statement.
- For Statement.
- While Statement.
- Elif Statement.
- Break, Continue and Pass Statement.

#### **Part 5: Functions in Python**

- What are Functions.
- How to define functions in Python.
- Concept of Function Overloading.
- Defining \_\_init\_\_ functions.

#### Part 6: Decorators in Python

- Role of Decorators in Python.
- Using Functions as objects.
- Defining a function inside a function.

#### **Part 7: Strings in Python**

- Creating Strings in Python.
- Various string operations including striping and striding.

#### Part 8: Object Oriented Programming in Python

- Creating Classes and Objects.
- Data abstraction in Python.
- Inheritance in Python Classes.
- Concept of Method Overriding.

#### Part 9: Exception Handling in Python

- What are Exception.
- Exceptions Vs Errors.
- Catching Exceptions.
- Reporting exceptions.
- User Defined Exceptions.

#### Part 10: GUI (Graphical User Interface) design in Python

- Introduction to Tkinter Programming.
- Creating Forms.
- Adding Components like Labels, Command Buttons, Option Buttons, Dropdown Boxes etc.
- Adding Canvas to Tkinter Frame.

#### Part 11: Working with NumPy & Pandas

- Introduction to Numerical Python and Pandas Library.
- Importing Data from Excel sheets.
- Performing operations on Dataframes and sequences.

#### Part 12: Database Programming using Python

- Creating a database.
- Creating Dumps for a Database.
- Connecting to a Database in the backend.
- Adding, Retrieving and modifying the data in the database using Python Front End.

#### **Part 13: Introduction Webscraping**

- Understanding Scraping
- **♣** Implementing ebscraping on Instagram

#### Part 14: Data visualization in Python

- Introduction to MATPLOTLIB
- Creating all Different Kinds of Graphs including, Bar graphs, Scatter plots, line graphs, worm graphs etc.

#### Part 15: Regular Expression and lambda Functions in Python

- Defining and Using Regular Expressions.
- Understanding Lambda Funtions.
- Implementing Lambda Functions in Projects.

## **Project Based Approach**

After every set of Concepts ,we implement a project using all those concepts. The Course Includes the following projects.

- 1) A Game Design Based on Course curriculum Part 1 to Part 8.
- 2) Election Data analysis Using Pandas and Matplotlib.
- 3) Designing a complete Project validation form using Regular Expressions and Lambda Functions (GUI & Database based)
- 4) A Project on How to design an Audio Player
- 5) A Project on Web scraping on Instagram.

#### Salient Features Of the Course

- 1) Completely Hand on Course.
- 2) Online Support from our App and Website.
- 3) Theoretical concepts covered too, as they are important for certification and Interviews.
- 4) Certification to be provided at the end of the course.

### **About Junaid Khateeb**

**Qualification:** M.E. Computer Engineering

**Teaching Experience : 17 Years** 

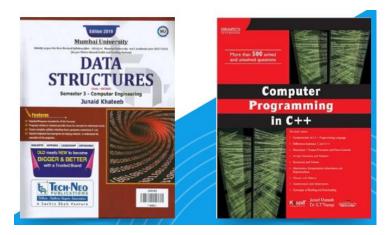
**Profile:** Founder of Khateeb Group of Insitutes & Junkminds.com

**Technologies Taught:** C, C++, JAVA, Python, Machine Learning, Artificial Intelligence, R-Programming

**Concepts Taught**: Object Oriented Programming, Database Management System, Operating System, Data Structures, Software Engineering, Discrete Mathematics, Analysis of Algorithms, Distributed Processing.

Number Of students trained : over 10,000 and counting.

#### **Author of the Following books:**





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