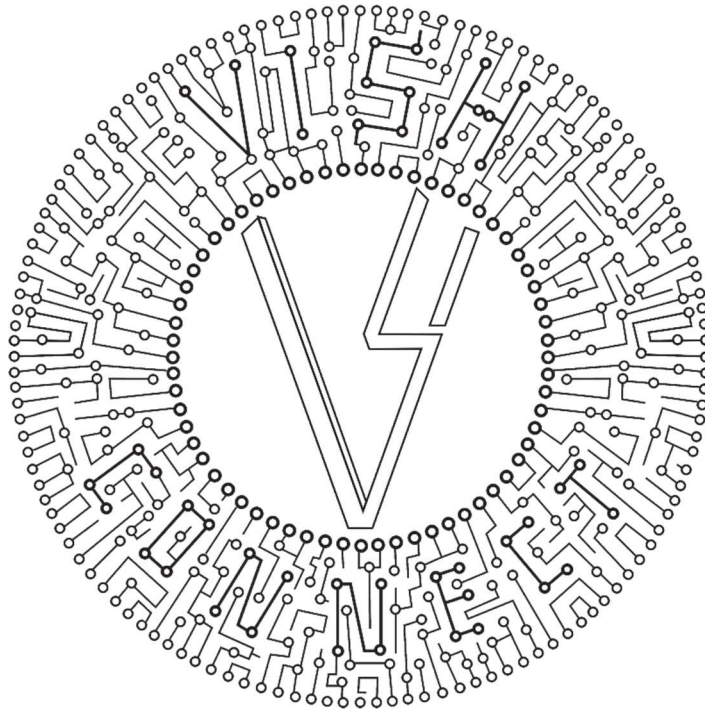




VISHCONNECT SOLUTIONS

Simplify Work Through Automation

Standard Python Workshop



Session 1: Python Basics Refresher

- **Duration: 1.5–2 Hours**
 - **Topics:**
 - **Recap of Python environment setup**
 - **Python syntax, variables, and data types**
 - **Input/output functions**
 - **Arithmetic and comparison operators**
 - **Practical Activities:**
 - **Write basic programs using variables and operators**
 - **Practice user input/output tasks**
 - **Solve simple arithmetic problems in Python**
-

Session 2: Control Structures and Functions

- **Duration: 2 Hours**
 - **Topics:**
 - **Conditional statements (if-elif-else)**
 - **Loops (for, while, nested loops)**
 - **Functions: definition, parameters, return values**
 - **Lambda functions (anonymous functions)**
 - **Practical Activities:**
 - **Write programs using loops and conditions**
 - **Create reusable functions for basic operations**
 - **Use lambda functions for simple calculations**
-

Session 3: Data Structures

- **Duration: 2 Hours**
- **Topics:**
 - **Lists: creation, slicing, and methods**
 - **Tuples and their immutability**
 - **Dictionaries: key-value pairs and methods**

- **Sets: unique elements and operations**
 - **Practical Activities:**
 - **Manipulate lists, tuples, and dictionaries**
 - **Write programs using dictionaries for storing data**
 - **Perform set operations (union, intersection)**
-

Session 4: String Manipulation and File Handling

- **Duration: 2 Hours**
 - **Topics:**
 - **String methods and slicing**
 - **Regular expressions (introductory level)**
 - **File handling: reading, writing, and appending**
 - **Context managers for file operations (with open)**
 - **Practical Activities:**
 - **Perform string operations like searching and replacing**
 - **Create programs to read and write text files**
 - **Solve small tasks using regular expressions**
-

Session 5: Exception Handling and Debugging

- **Duration: 1.5–2 Hours**
 - **Topics:**
 - **Error types in Python**
 - **Using try, except, finally blocks**
 - **Raising exceptions manually**
 - **Debugging techniques**
 - **Practical Activities:**
 - **Write programs with error-handling mechanisms**
 - **Debug code with deliberate errors**
 - **Practice raising and handling exceptions**
-

Session 6: Working with Libraries and Modules

- **Duration: 2 Hours**
 - **Topics:**
 - **Understanding Python libraries and modules**
 - **Built-in libraries: math, datetime, os**
 - **Installing and using third-party libraries (pip)**
 - **Introduction to numpy and matplotlib**
 - **Practical Activities:**
 - **Perform operations using math and datetime**
 - **Install a third-party library and use it**
 - **Create simple plots using matplotlib**
-

Session 7: Introduction to Object-Oriented Programming (OOP)

- **Duration: 2 Hours**
- **Topics:**
 - **Classes and objects**
 - **Defining methods and constructors**
 - **Attributes and access modifiers**
 - **Inheritance and polymorphism**
- **Practical Activities:**
 - **Create classes and objects for a real-world scenario**
 - **Use constructors to initialize attributes**
 - **Implement inheritance in a small project**

Standard Python Workshop

Contact Information:

For any questions or further information, please contact us at:

Email: info@vishconnect.com

Phone: +1 437 452 9029