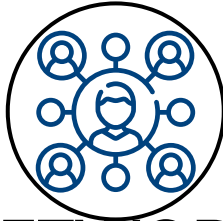




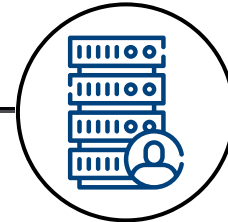
- 1** LEARN
- 2** CERTIFY
- 3** ENGAGE
- 4** COMPETE

PYTHON PROGRAMMING

PYTHON LANGUAGE PROFESSIONALS



NETWORK ADMINISTRATOR



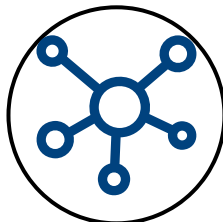
DATABASE ADMINISTRATOR



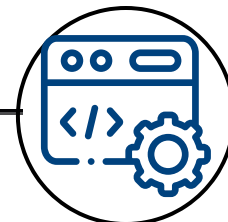
DATA ANALYST



CYBER SECURITY EXPERT



MACHINE LEARNING ENGINEER



TELECOM ENGINEER

COURSE OUTLINE

Module 01 | Introduction to Python

Module 02 | Variable and Data Types

Module 03 | Control Flow

Module 04 | Data Structures

Module 05 | Functions

Module 06 | File Handling

Module 07 | Error Handling and Exceptions

Module 08 | Modules and Libraries

COURSE OUTLINE

Module 09 | Object-Oriented Programming (OOP) Basics

Module 10 | Advanced OOP Concepts

Module 11 | Functional Programming

Module 12 | Regular Expressions

Module 13 | Working with Data

Module 14 | Web Scraping

Module 15 | GUI in Python

Module 16 | Final Project

Introduction Python

- Overview of Python
- Installation and Setup
- Basic Syntax and Hello World

Variable and Data Types

- Variables and Naming Rules
- Numeric Data Types
- String Data Type
- Input and Output

Control Flow

- Conditional Statements (if, elif, else)
- Logical Operators
- Loops (for and while)
- Loop Control Statements (break, continue)

Module **04**

Data Structures

- Lists
- Tuples
- Sets
- Dictionaries

Functions

- Function Definition and Syntax
- Parameters and Arguments
- Scope and Lifetime of Variables
- Return Statements

File Handling

- Reading and Writing Text Files
- Working with CSV and JSON Files

Error Handling and Exceptions

- Exception Handling (try, except, finally)
- Custom Exception Classes

Modules and Libraries

- Using Built-in Modules
- Creating and Importing Custom Modules
- Introduction to Python Standard Library

Object-Oriented Programming (OOP) Basics

- Classes and Objects
- Constructors and Destructors
- Inheritance and Polymorphism

Advanced OOP Concepts

- Encapsulation
- Abstraction
- Method Overriding
- Class and Instance Variables

Module

11

Functional Programming

- Lambda Functions
- Map, Filter, and Reduce
- Closures

Module 12

Regular Expressions

- Pattern Matching with Regular Expressions
- Re Module Functions

Module 13

Working with Data

- Introduction to NumPy and Pandas
- Data Manipulation and Analysis

Module 14

Web Scraping

- Requests Library
- BeautifulSoup for HTML Parsing

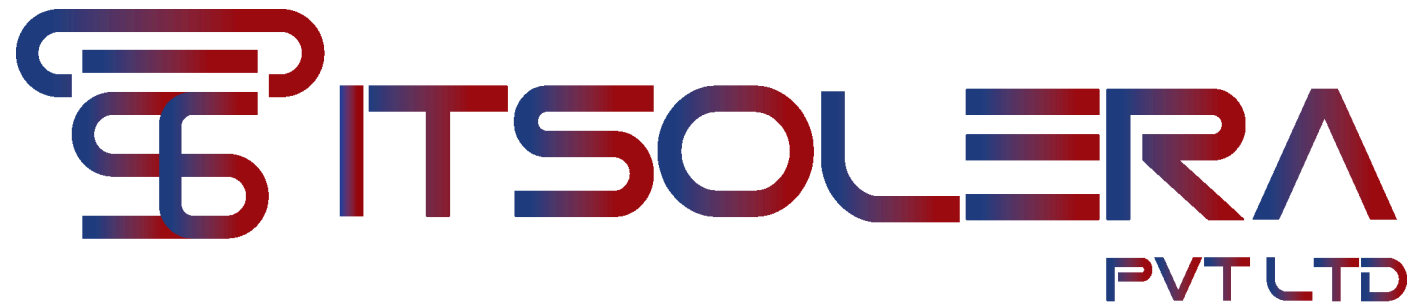
GUI in Python

- Introduction to GUI
- GUI libraries in python
- Basic GUI components
- Event Handling
- Data Input Validation

Module 16

Final Project

- Applying Python skills to develop a real-world project



while (! (succeed = try()));