



## Description

Python, a user-friendly language widely employed for tool creation in various domains including cybersecurity, is the focus of this program. It offers learners a foundational grasp of programming logic and equips them with the skills to write basic scripts, thereby elevating their programming proficiency to a higher level.

# PYTHON FUNDAMENTALS

## Module 1: Introduction to Python

This module presents an introduction to Python programming, starting from its installation, understanding variables and Booleans, to exploring more complex data types like dictionaries and tuples. It further delves into the concept of loops, essential for creating repetitive tasks and workflows in Python.

### Introduction

- Installing of Python
- Variables and Booleans
- Dictionaries and Tuples
- Loops

## Module 2: Conditions and Functions

This module delves deeper into Python programming with a focus on conditionals and loop constructs, including 'while' and 'for' loops. It then expands on scoping, subroutines, various aspects of function usage, including handling external functions and exceptions, important for robust and efficient programming.

### Conditions

- Conditional Statements
- While and For Loops
- Scoping and Subroutines

### Functions

- Working with Functions
- External Functions
- Exceptions

## Module 3: Files I/O

This module guides learners through the utilization of Python modules with a focus on file handling—reading and extracting data from files and writing into them. It additionally delves into the usage of the OS module, which allows Python scripts to interact with the operating system.

### Python Modules

- Reading Files
- Extracting Data
- Writing into Files
- The OS Module