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## CTR-503 Python Basics

### Overview

#### *About This Course*

No previous knowledge.

#### *Audience Profile*

For people that want an introduction to the software programming industry.

#### *At Course Completion*

At the end of the course the participants will know all Python basics.

#### *Course outline*

##### **Module 1: An Introduction to Python**

- What can Python do?
- Why Python?
- Good to know
- Python Syntax compared to other programming languages
- Python Install

##### **Module 2: Beginning Python Basics**

- The print statement
- Comments
- Python Data Structures & Data Types
- String Operations in Python
- Simple Input & Output
- Simple Output Formatting
- Operators in python

##### **Module 3: Python Program Flow**

- Indentation
- The If statement and its' related statement
- An example with if and it's related statement
- The while loop
- The for loop
- The range statement
- Break &Continue
- Assert
- Examples for looping

##### **Module 4: Functions& Modules**

- Create your own functions
- Functions Parameters
- Variable Arguments
- Scope of a Function
- Function Documentations
- Lambda Functions& map
- n Exercise with functions
- Create a Module

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- Standard Modules

#### **Module 5: Exceptions Handling**

- Errors
- Exception handling with try
- handling Multiple Exceptions
- Writing your own Exception

#### **Module 6: File Handling**

- File handling Modes
- Reading Files
- Writing & Appending to Files
- Handling File Exceptions
- The with statement