



Regd. Off. Plot A-40, Unit No. 207-301, 2nd & 3rd Floor, I-Thum Tower A, Sector-62, Noida 201309 Nearest Metro Station Noida Electronic City

Website: www.trainingbasket.in E-mail: support@trainingbasket.in Helpline: +91-9015887887





GETTING STARTED

- History & need of Python
- Application of Python
- Advantages of Python
- Disadvantages of Python
- Installing Python

PYTHON FUNDAMENTALS

- Working With Interactive Mode
- Working With Script Mode
- Python Character Set
- Python Tokens- Keywords, Identifires, Literals, Operators
- Variables and Assignments
- Input and Output Functions in Python

DATA HANDLING

- Data Types
 - Numbers
 - Strings
 - Lists
 - Tuples
 - Dictionary
 - Mutable and Immutable Data Types
- Operators
 - Arithmetic Operators
 - Relational Operators
 - Logical Operators
 - Operators Precedence
 - Evaluating Expression
 - Type Casting

CONDITIONAL AND LOOPING CONSTRUCTS

- If Statements of Python
 - The if Statement
 - The if-else Statement
 - The if-elif Statement
 - Nested if Statements
- Looping and Iteration
 - The For Loop
 - The While Loop
 - Loop Else Statement
 - Nested Loops
 - Break and Continue
- The Range Function





- Using a Functions
- Python Function Types
- Structure of Python Modules
- Importing Modules in Python Programs
- Invoking Python's Built In Functions
- Working With Random Modules
- User Defined Functions
 - Structure of a Python Program w.r.t. UDF
 - Invoking UDF
 - Flow of Execution
 - Arguments and Parameters
 - Default Arguments, Named Arguments
 - Scope of Variables

RASPBERRY PI BASICS

- What is Raspberry PI
- Hardware
- Ingredients
- Preparing & Installing Raspberry PI
- Connecting The Raspberry PI
- Basic Networking
- Shutting Down

RASPBERRY PI PROCESSOR ARCHITECTURE

- SoC
- BCM2835 Multimedia Processor
- SoC in Raspberry PI
- Connecting Peripherals to PI Board

GETTING STARTED WITH LINUX ENVIRONMENT

- Understanding Linux File System
- Basic Linux Commands
 - LS,CD,PWD,MKDIR,RMDIR,RM,CP, MV,TOUCH,CAT,
 - HEAD, TAIL, CHMOD, SUDO, DF, UNZI P, TAR, PIPE, MAN
 - GREP,HOSTNAME,IFCONFIG
 - Text Editors
 - LEAFPAD
 - IDLE
 - VI
 - GVIM
 - NANO
 - VIM
 - EMACS





GETTING READY FOR SOFTWARE

- Introduction to NOOBS and SD Cards
- NOOBS for Raspbian
- SD Card Formatter
- Downloading & Installing NOOBS

GETTING STARTED WITH GPIO PROGRAMMING

- Led Programming
- Switch and Led Programming
- Interfacing Relay
- Motor Interfacing
- Motor Driver Ics
- Relay Drivers Ics
- Other Peripheral Interfacing
- 2+ Projects