





Day 1

Introduction To Python



Pantech?

Educational Equipment Manufacturer

- a IoT
- AI/Robotics/Autonomous Robot,
- Microprocessor/Microcontroller
- DSP, VLSI, Embedded System/
- Power Electronics & Drives, Fuel Cell Trainer Kit
- Renewable Energy Lab, Electric Vehicle Lab

Technical Training DIY Project



Our Vision

To Help 10Million People to Learn the Technology in Easy way



Associate Partner





Advanced Python Learning Plan

01

02

03

04

05



def __init__(self):

self.number = defaultdict(int)

def __out__(self, host_instance, host_class):
 return hox(self.number[not._instance)):
 if sinstance(nex_ualue, int):
 self.number[hoxt_instance] = nex_ualue
 elf! isinstance(nex_ualue, int):
 self.number[hoxt_instance] = nex_ualue
 elf! isinstance(nex_ualue, int):
 self.number[hoxt_instance] = nex_ualue
 elf! isinstance(nex_ualue, int):
 self.number[hoxt_instance] = int(nex_ualue, if)
 else:
 self.number[hoxt_instance] = int(nex_ualue, if)





Automation in

Python



Python

Iterators , Modules, Decorators, List Comprehension

Advanced PythonPython Libraries

Pandas,Numpy,Matpl Weight Converter GUI Otlib Using Python, Card Game Using Python

Python Projects

Project Building,

Introduction To Python and Python Data Structures

Day wise Learning Plan



Day 1- Introduction to Python

Day 2- Python – Tools | Syntaxes and Data Structures

Day 3- Python – Dictionaries, Lists, Tuples, Functions

Day 4- Python – Classes and Objects , Reg Expressions

Day 5-Python – Iterators, Modules

Day 6- Python – Packages, Generators

Day 7-Python – List Comprehensions, Serialization

Day 8- Python – Partial Functions, Closures

Day 9- Python – Decorators, Python - Examples

Day 10- Python – Networking, Multithreading

Day 11- Pandas library – Introduction

Day 12- Pandas library – Data Structures

Day 13- Numpy library – Introduction

Day 14- Numpy library – Array Manipulations,

Mathematical Functions

Day 15-Matplotlib , Histogram using Matplotlib | I/O with

Numpy

Day 16-Matplotlib library – Pyplot API, Types of plots

Day 17- Seaborn library

Day 18- SKLearn library

Day 19- Keras Library

Day 20- Automation In Python

Day 21-Weight Converter GUI with Python , Create a ChessBoard Using Python

Day 22-Card Game Using Python , Python Clock App With Kiwi

Day 23- Turtle Graphics With Python, Monty Hall Simulator Using Python,

Fidget Spinner Game Using Python

Day 24- Chatbot creation in Python - NLP

Day 25- Electricity Price Prediction Using ML – Random Forest Regressor

Day 26- Customer Segmentation Using ML – K-Means Clustering

Day 27 – House Price Prediction – Random Forest Regression

Day 28- Intrusion Detection Using ML

Day 29- Android Malware – SVM Algorithm

Day 30 – Churn Prediction – Deep Learning



Objective of this 30 Days Master Class

Pantech will make you to create 10 Projects in advanced python in 30 Days



Types of Programming languages

High-level language

- Python
- C
- C++
- Perl
- Java

Low-level language

- Machine languages
- Assembly languages



Two kind of program processes:

- Interpreters
- Compilers

INTERPRETER



Input	It takes a single line of code or instruction at a time.
Output	It does not produce any intermediate object code.
Working mechanism	Compilation and execution take place simultaneously.
Speed	Slower
Memory	It requires less memory as it does not create intermediate object code.
Errors	Displays error of each line one by one.
Error detection	Easier comparatively

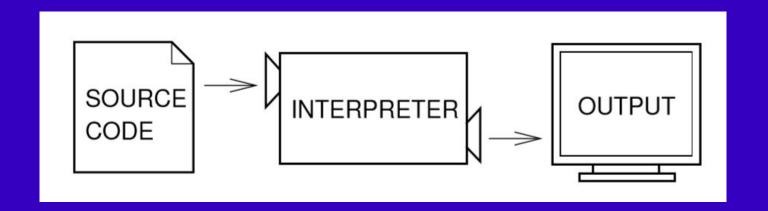
COMPILERS



Input	It takes an entire program at a time.
Output	It generates intermediate object code.
Working mechanism	The compilation is done before execution.
Speed	Comparatively faster
Memory	Memory requirement is more due to the creation of object code.
Errors	Display all errors after compilation, all at the same time.
Error detection	Difficult

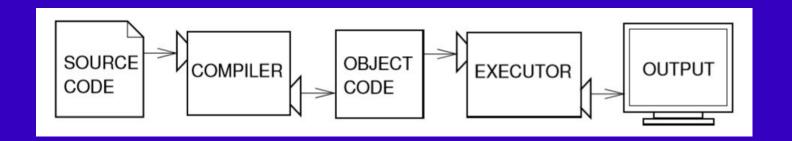


Interpreters





Compilers



Introduction



Python is:

- 1. High-level programming language.
- 2. Fast to learn and fast to develop application.
- 3. Available for many platforms.
- 4. Implement complex logic with very few lines of code.

History









Guido van Rossum

 At National Research Institute for Mathematics and Computer Science in Netherland.



Why One Should use PYTHON?

What can I do in PYTHON



WHY?

Data Processing



Powerful language for complex data processing.

The Modular toolkit for Data Processing (MDP) library developed in python is widely used for complex data processing algorithm



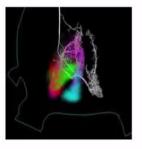


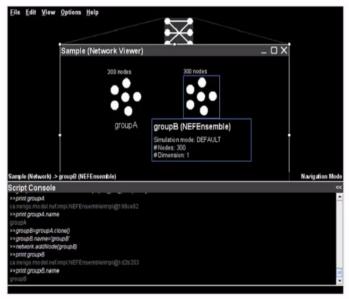
Pantech e Learning

We can use python for signal processing and advance visualization technique.

Python contribution in Neuroscience data analysis is a great example of this.











We can use python for Game making

Pygame is one of the powerful python modules designed for writing games.



```
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risw (vec[1] = (dx = 0) | 1 do x = 0) etest, on of 1.0.1
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risk (vec[1] = (dx = 0) | 1 do x = 0)
risk (vec[1] = (dx = 0)
risk (vec[1] =
```





Maya Python

We Can use PYTHON for Movie Creation

Maya python is a great tool for movie creation







Music Software

Python has great contribution in writing music software

- Audio Players
- Audio Convertors
- Music Notation
- Musical Analysis
- Audio Analysis
- laying & creating sound
- MP3 stuff and Metadata editors







Web site development frame work

Django is a very Powerful web site development framework for rapid development, written in python







PYTHON 2 VS. PYTHON 3

- 1. Python 2 is legacy, Python 3 is the present and future.
- 2. Python 3 was released in 2008.
- 3. Python 3 don't have enough libraries.
- 4. That's why python 2 is present and still ON.

Installation



sudo apt-get install idle

```
File Edit Tabs Help
pi@raspberrypi:~ $ sudo apt-get install idle
Reading package lists... Done
Building dependency tree
Reading state information... Done
idle is already the newest version.
O upgraded, O newly installed, O to remove and 1 not
upgraded.
pi@raspberrypi:~ $
```



Two ways to use interpreter

1. Interactive Mode:

```
Command Prompt-python — — X

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C:\Users\coolb_000>python

Python 2.7.11 (v2.7.11:6d1b6a68f775, Dec 5 2015, 20:32:19) [MSC v.1500 32 bit (Intel)] on win32

Type "help", "copyright", "credits" or "license" for more information.

>>> 1 + 1

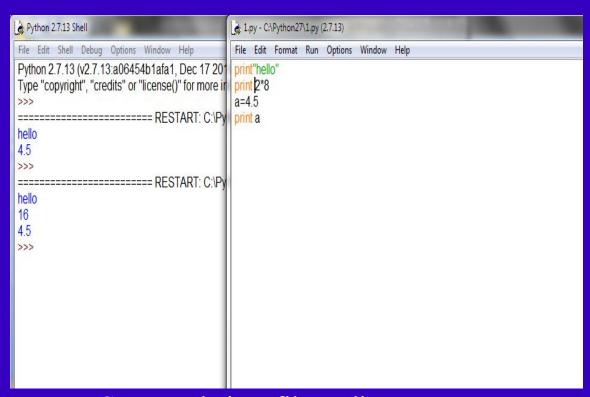
2

>>> print "Welcome to Python!!"

Welcome to Python!!"
```



2. Script Mode (IDLE):



Store code in a file ending .py



1 Month Internship in ADVANCED PYTHON

INTERNSHIP E-Certificate(30Days Internship on Advanced Python)

Highly organized Video content

Download ipynb Files

Download PPTs

Assignments

Flexible Time.

Access Period: 90Days from the date of payment

What You Will Get???



30 Days Learning Practice
Advanced Python concepts
10 + Projects
Zoom Class - Hackathon

Project Files of Jupyter Notebook

Project PPT

Video Class Access for 2 Months

- Weight Converter GUI with Python , Create a ChessBoard Using Python
- Card Game Using Python , Python Clock App With Kiwi
- Turtle Graphics With Python, Monty Hall Simulator Using Python, Fidget Spinner Game Using Python
- Chatbot creation in Python
- Electricity Price Prediction Using ML
- Customer Segmentation Using ML
- House Price Prediction
- Intrusion Detection using ML
- Android Malware
- Churn Prediction

NLP

Random Forest Regressor K-Means Clustering Random Forest Regression

SVM Algorithm

Deep learning

Get chance to Enroll 1-Month Internship on demand



How to Enroll into 1 month Internship

'https://imjo.in/hrVWja

Internship Cost: Rs. 999

COUPON CODE (ADVPYTHON): Rs.403 Off -

Internship Charges: Rs. 596





30 DAYS MASTER CLASS

ADVANCED PYTHON PROGRAMMING

27-10-2022 TO 26 -11-2022

6.00 pm - 6.45 pm IST

INTERNSHIP PROGRAM



How to Enroll into 2 month Internship 'https://imjo.in/rmwMGC

Internship Charges: Rs. 999





Interpreter

execution = interpreter (bytecode)

or

give life to your code







A Layer software logic.

CODE

Interpreter

Computer Hardware.



For example..

```
File Edit Format Run Options Window Help

print "Welcome to Python!"

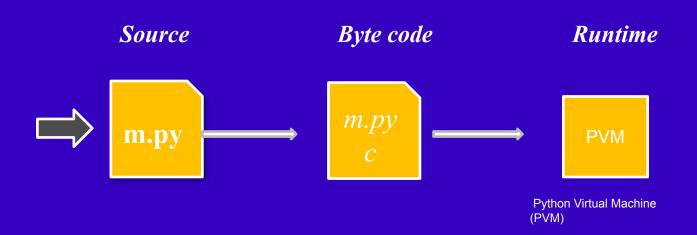
print 2**100
```



The Programmer's View



Python' View



Runtime execution model



What is debugging?

Types of errors occur while programming:

- Syntax Error
- Runtime Error
- Semantic Error



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Internship Certificate (Sample)

