Python Learning Hierarchy

Part 1

Python Basics

- ☐ Introduction to Python
- ☐ Understanding How Python works and the Python compiling procedure
- ☐ Features and Application Of Python
- ☐ Understanding Syntax of Python
- ☐ Understanding Syntax of Python
- ☐ Understanding datatypes in Python
  - ☐ Types of datatypes
- ☐ Understanding keywords in Python
- ☐ Understanding Variables
  - ☐ Types of Variables
  - ☐ Rules of Variables
- ☐ **Important More Hands-On Examples needed**
  1. **Conditional statements**
     - ☐ Understanding Types of Conditional statements
     - ☐ Examples on each conditional statements to understand better
  2. **Looping statements**
     - ☐ Understanding Types of Looping statements
     - ☐ Examples on each Looping statements to understand better
     - ☐ Understanding how loops works in basic data structures like lists, tuples, dictionary, sets
  3. **Mode hands on(Practice) by using Conditional & Looping**
- ☐ Basics Data structures with inbuilt methods and Examples of it
  - ☐ List & Its built in methods

```
myList = ["Apple", "Mango","Orange","Banana","Grapes"]
#Do Like below you will get builtin method
myList.<Here you will get built-in methods>
```

  - ☐ Tuples & Its built in methods

```
myTuple = (1,2,3,4,"aaa","bbb","ccc")
#Do Like below you will get builtin method
myTuple.<Here you will get built-in methods>
```

  - ☐ Dictionary & Its built in methods

Part 2

Python Intermediate

- ☐ Functions/methods
  - ☐ Types of Functions
  - ☐ Practice types of examples to understand better
  - ☐ Examples
- ☐ Python Scopes
- ☐ Class and Objects
  - ☐ Understanding what is class?
  - ☐ Understanding what is Objects?
  - ☐ Examples
- ☐ OOPS Concepts
  - ☐ Constructors
    - ☐ Types of Constructors
  - ☐ Inheritance
    - ☐ Types Of Inheritance
    - ☐ Examples on each one to understand the usage
  - ☐ Polymorphism
    - ☐ Method Overloading and Method Overriding
    - ☐ Examples on polymorphism to understand the usage
  - ☐ Encapsulation
    - ☐ Examples on it to understand the usage
  - ☐ Abstraction
    - ☐ Examples on it to understand the usage
  - ☐ Interface
    - ☐ Examples on it to understand the usage
- ☐ Understanding assert statement
- ☐ Exception Handling
  - ☐ Understanding **try**
  - ☐ Understanding **Except**
  - ☐ Understanding **Else**
  - ☐ Understanding **Finally**
- ☐ Python Database CRUD Operations (https://www.tutorialsteacher.com/python/database-crud-operation-in-python)
- ☐ Python Lambda Expression

```
myDict = {1:"One",2:"Two",3:"Three",4:"Four",5:"Five"}
#Do Like below you will get builtin method
myDict.<Here you will get built-in methods>
```

☐ Set & Its built in methods

```
mySet = {1,2,2,3,4,5,6,7}
#Do Like below you will get builtin method
mySet.<Here you will get built-in methods>
```

☐ Understanding Python - Error Types

☐ Understanding Python Magic or Dunder Methods
(https://www.tutorialsteacher.com/python/magic-methods-in-python)

☐ Python Recursion

☐ Python Iterators

☐ Python Generators

☐ Python Decorators

☐ Python Property

☐ Python RegEx

☐ Python Modules

☐ Python Date & Type

☐ Python JSON Operations

☐ Python Pip Usage

☐ File Operations in python

☐ Advanced Python

   ☐ Numpy

   ☐ Pandas

   ☐ Matplotlib

   ☐ Seaborn

   ☐ SciPy

☐ Get Started To Artificial Intelligence

Insights

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Open Source Developers Community

- The **Curious developers Community** - curiousdevelopers.in
- **Telegram Link -** https://t.me/+7iA1gNQwgStlZDJl

Resources Link

- **Learning Materials (Java)**

  - https://drive.google.com/drive/folders/11uXn5N5WU41kCe3U5be5v7zRmYTGMNKo?usp=drive_link

  - https://drive.google.com/file/d/1gOYrlkT8zaXbLov5hk1FG62PaFA8sc_o/view?usp=drive_link

- Selective Websites

  - https://www.tutorialsteacher.com/python

  - https://www.w3schools.com/python/

  - https://www.programiz.com/python-programming

- **Learning Materials (Java and DSA)**

  - https://drive.google.com/drive/folders/1NcQw1qvB1P8F_Xib3MApASQuXGc0s29m?usp=drive_link

  - https://drive.google.com/drive/folders/1Da_v5uHIvBscWcRRgMsYGq-hJ00dQL9Y?usp=drive_link

- **Informative Documents**

  - **Archives** - https://curiousdevelopers.in/community-archives/

- **Roadmaps** - https://curiousdevelopers.in/roadmap-to-becoming-a-full-stack-developer-tips-tricks-and-essential-skills/

- **Important Examples** - https://curiousdevelopers.in/important-interview-preparation-checklist/

- **ATS Resume Building Guide -** https://curiousdevelopers.in/how-to-create-ats-resume/

- **How To Be A Good Programmer -** https://curiousdevelopers.in/how-to-be-a-good-programmer/

Tips & Usage

> 💡 **EVERYONE IMPORANT: Steps to become a good developers**

1️⃣ ▶️ Always learn in one resources which is attached below or which we share further and compare or get clear your doubt on other resources

2️⃣ ▶️ A good programmer makes a document (Digitally) on each concepts that he learns it contains theory in simple understandable words along with respective pitcher of code/code for each concepts

- **Notes that i made:** platform **(Notion)**https://codershandbook.notion.site/Java-Notes-90f8ccf0c23242c0bd407291535fae40

- you can also use *****Notion***** digital documentation

3️⃣ ▶️ *For example* I'm reading some concepts in some website/resources, in that website/resource the concepts are little tough or not able to understand or the information is less. So what you can do at that time. Use other resources which is provided or watch any YouTube videos/other video oriented things to understand those concepts

4️⃣ ▶️If possible please don't waste your precious time by watching lengthy videos of some simple concept

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