## Step by Step Approach Don't Miss any Step it will create a Hassle for you!

Note - Make Proper Notes of Each and Everything if you don't want to forget the Things.

## **Python Data- Variables & Data Types**

- https://drive.google.com/file/d/1V8EufmaYuzwVr5IBsWA3WRJJ10ivLKCd/view?usp=drivelink
- https://drive.google.com/file/d/1Sm3hyln7DRk2nLwuWS70OP\_qiZwPhclA/view?usp=drive\_link

## 1) Python Operators & Behaviour on Different Data-Types

- https://drive.google.com/file/d/1GGw9OI79wWMmipwBz-8Wgi5Babd5jfrT/view?usp=drivelink
- https://drive.google.com/file/d/1aOlBnWpglQTPL1l3UyoqDjNuwvAEsQUX/view?usp=drive\_link

<u>Time & Space Complexity in Python - https://www.youtube.com/watch?v=vqSKOMsjLbc</u>

Functions in Python - <a href="https://www.youtube.com/watch?v=BVfCWuca9nw">https://www.youtube.com/watch?v=BVfCWuca9nw</a> (Understand and Make Notes )

## 2) Python Strings -

- https://drive.google.com/file/d/1BCC18k0DiuB\_7F0SzXWCRnb2wcSXGCdW/ view?usp=drive\_link
- https://drive.google.com/file/d/1srWy-KMDMk5PR6OUxjUi3UhFpzGUsr1z/view?usp=drive link

Indexing in Python - <a href="https://www.youtube.com/watch?v=XwaEo4f17LU">https://www.youtube.com/watch?v=XwaEo4f17LU</a>

- 3) Lists -
  - https://drive.google.com/file/d/1hwXwVP6WfC5TJ5O4\_0qKNTpW69vP7DTC/ view?usp=drive\_link
  - <a href="https://drive.google.com/file/d/10cazbWtwj0cMVRfU1Ls1vtTe8tGA1wl9/view?">https://drive.google.com/file/d/10cazbWtwj0cMVRfU1Ls1vtTe8tGA1wl9/view?</a> usp=drive link
- 4) Coding Questions Based on Strings & Lists -
  - Before Solving Coding Questions watch the Below 4 Videos on Strings - https://www.youtube.com/watch?v=AaoqKIYCbSk&list=PLqM7alHXFySHLJW u Euw7pdl4ec1hHTLl&index=10
  - <a href="https://www.youtube.com/watch?v=flYVzKp0q5w">https://www.youtube.com/watch?v=flYVzKp0q5w</a>

# Mandatory Video -

- Python String Methods Part1
- Python String Methods Part2
- Python String Methods Part 3
- Logical Operations and Splitting in Strings
- Built in Functions Strings -

https://www.youtube.com/watch?v=9qqIn9OnPTq

— Google Colab – <a href="https://colab.research.google.com/">https://colab.research.google.com/</a>

Coding Questions on Strings(Solve all of them ) - If not able to Solve

See the Solution but Understand from the Solution -

- 1. Program to convert String to a List
- 2. Count and display vowels in a string
- 3. Python program to check the validity of a Password
- 4. Python program to count number of vowels using sets in given string
- 5. Print the initials of a name with last name in full
- 6. The k most frequent words from data set in Python
- 7. Find all close matches of input string from a list
- 8. Remove all duplicates words from a given sentence
- 9. Sort words of sentence in ascending order
- 10. Reverse each word in a sentence
- 11. Python code to print common characters of two Strings in alphabetical order
- 12. Python program to split and join a string
- 13. Python code to move spaces to front of string in single traversal
- 14. Run Length Encoding in Python
- 15. Remove all duplicates from a given string in Python

Above Questions are Based on Strings - Now you have see the Below Videos for List then you have to Solve the Questions -

- <a href="https://www.youtube.com/watch?v=DHyul4lgRdE&list=PLqM7alHXFySHLJWu\_Euw7pdI4ec1hHTLI">https://www.youtube.com/watch?v=DHyul4lgRdE&list=PLqM7alHXFySHLJWu\_Euw7pdI4ec1hHTLI</a> <a href="mailto:&index=8">&index=8</a>
- https://www.youtube.com/watch?v=1Ej7ry6jacg&list=PLqM7alHXFySHLJWu\_Euw7pdl4ec1hHTLl& index=9
- Built in Functions in List <a href="https://www.youtube.com/watch?v=cS\_4YJx5KvU">https://www.youtube.com/watch?v=cS\_4YJx5KvU</a>

### Coding Questions on Lists -

#### Python program to swap two elements in a list

- Python Swap elements in String list
- Python | Ways to find length of list
- Maximum of two numbers in Python
- Minimum of two numbers in Python
- Python | Ways to check if element exists in list
- <u>Different ways to clear a list in Python</u>
- Python | Reversing a List
- Python | Cloning or Copying a list
- Python | Count occurrences of an element in a list
- Python Program to find sum and average of List in Python
- Python | Sum of number digits in List
- Python | Multiply all numbers in the list
- Python program to find smallest number in a list
- Python program to find largest number in a list
- Python program to find second largest number in a list
- Python program to print even numbers in a list
- Python program to print odd numbers in a List
- Python program to print all even numbers in a range
- Python program to print all odd numbers in a range
- Python program to count Even and Odd numbers in a List
- Python program to print positive numbers in a list
- Python program to print negative numbers in a list
- Python program to print all positive numbers in a range
- Python program to print all negative numbers in a range
- Python program to count positive and negative numbers in a list
- Remove multiple elements from a list in Python
- Python | Remove empty tuples from a list
- Python | Program to print duplicates from a list of integers

### Time & Space Complexity in Python - Watch Again

https://www.youtube.com/watch?v=vqSKOMsjLbc

### — How to create Functions in Python to Solve Your Coding Problems

https://www.youtube.com/watch?v=-Bkupx9qX0o

Understand the Above Video you can solve each and every Python Question by Creating a User Defined Function .

- Q- Write a Function to Check the Prime Number in a Given Range?
- <a href="https://www.youtube.com/watch?v=yUaqdaZ\_QJk">https://www.youtube.com/watch?v=yUaqdaZ\_QJk</a>

https://www.w3schools.com/python/python\_dictionaries.asp

- https://www.youtube.com/watch?v=j2G68uQtOwM
- https://www.youtube.com/watch?v=auT2elx\_Fqc

### Coding Questions on Dictionary -

- Python | Sort Python Dictionaries by Key or Value
- Handling missing keys in Python dictionaries
- Python dictionary with keys having multiple inputs
- Python program to find the sum of all items in a dictionary
- Python program to find the size of a Dictionary
- Ways to sort list of dictionaries by values in Python Using itemgetter
- Ways to sort list of dictionaries by values in Python Using lambda function
- Python | Remove all duplicates words from a given sentence
- https://www.youtube.com/watch?v=-Z00dF3MOJ4

- <u>Last Videos https://www.youtube.com/watch?v=PipsOUDKrVk</u>
- https://www.youtube.com/watch?v=l3kCO8cVA6o

### Theory Questions For Interviews -

- 1. Differentiate between lists and tuples in Python.
- 2. What are positive and negative indices?
- 3. Define Pass statement in Python.
- 4. What are the limitations of Python?
- 5. Give an example of runtime errors in Python.
- 6. What is meant by compound data types and data structures?
- 7. Explain with an example what list and dictionary comprehension are.
- 8. Define tuple unpacking. Why is it important?
- 9. Differentiate between is and '=='
- 10. How do you differentiate between indexing and slicing?
- 11. Explain zip() and enumerate() function.
- 12. What is a default value?
- 13. What's the role of namespaces in Python?
- 14. What is Regex? List some of the important Regex functions in Python.
- 15. Differentiate between pass, continue and break.
- 16. What is the difference between range, xrange, and arange?
- 17. Explain the map, reduce and filter functions.
- 18.. Explain how Python data analysis libraries are used and list some common ones.
- 19. List the important features of Python.