

Basics

1. Prints numbers from 0 to 4 (up to 5 but not including 5)
2. Prints numbers from 0 to 4 (number starts from zero if start index is omitted)
3. Prints every alternate numbers starting zero
4. Prints number from 10 to 1
5. Prints number from 10 to 0
6. Prints alternate numbers from 10 to 0.
7. Prints Python is awesome!! 5 times
8. Print numbers from -10 to -1
9. Print numbers from 10 to -1
10. Print even numbers up to 50
11. Print odd numbers up to 50
12. Find the sum of first 10 even numbers

Strings

13. Iterating over string using range function.
`s = "hello world"`
14. iterating over a string in reversed direction
15. Printing Index and Character using range function
16. Iterating over multiple string objects using zip function
17. Printing alternate characters of the string
18. Program to count the number of digits and alphabets in the string "hai 1234 python23"
19. Program to count the number of capital and small letters in the string "HeLo WORLD"

Lists

20. Prints the item and its corresponding index in the list
21. Printing alternate items of the list
22. Iterating over multiple lists simultaneously
23. Iterating through multiple list with un-equal lengths using zip function
24. Program to print filenames ending with pdf.
`files = ['youtube.txt', 'amazon.pdf', 'facebook.pdf', 'google.pdf', 'apple.doc']`
25. Print the extension of each file name in the list

```
files = ['youtube.txt', 'yahoo.pdf', 'microsoft.doc', 'apple.xls', 'amazon.xml']
```

26. Program to print the length of each word in the list

27. Program to print the length of each word in the list in the form of tuples

Dictionary

28. Print only key's of the dictionary
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29. Print Values of the dictionary

30. Print index and item of the dictionary

31. Count number of words in a sentence using get method

```
sentence = 'hello world hello world welcome to python'
```

32. Counting number of characters in a string

```
s = 'abracadabraca'
```

33. Counting number of vowels in a string

34. Counting occurrences of word in the string

```
sentence = "hello world welcome to python hello hi hello hello"
```

35. Counting occurrences of each character in the string

```
s = 'abracadabraca'
```

36. Create a dictionary for the below list

```
cities = [('India', 'Bangalore'),  
( 'India', 'Chennai'),  
( 'India', 'Delhi'),  
( 'India', 'Kolkata'),  
( 'USA', 'Dallas'),  
( 'USA', 'New York'),  
( 'USA', 'Chicago'),  
( 'China', 'Beijing'),  
( 'China', 'Shainghai')  
]
```

Additional questions

37. Adding items of two lists corresponding to their indices

```
a = [1, 2, 3, 4]
```

```
b = [5, 6, 7, 8]
```

38. flattening the list using Multiple for loops in comprehension

```
items = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
```

39. Python Program for n-th Fibonacci number

40. Python Program for Sum of squares of first n natural numbers

41. Python Program for cube sum of first n natural numbers