

1. Sorting techniques without using any built-in functions (2 algos)
2. lambda functions
3. list comprehensions
4. dictionary comprehension
5. list and dictionary- manipulations and operations
6. map, zip, filter, enumerate
7. decorators – write the logic to know the execution time of each function in the program
8. write a decorator to identify the parameters of a function and what it returns
9. what is package and module
10. Composition in OOPS, give me an example
11. Take a list of words and find the Anagrams
12. Take a list of numbers and find the top 3 repetitive numbers
13. Two Sum Problem (Given an array of integers, return the indices of the two numbers that add up to a given target.)

l1 = [10,5,20,30]

Target: 35

14. Given a dictionary find the keys for which the values will add up to give the desired output.

d1 = {'a':10,'b':30,'c':40}

Output 1: 50

Output 2: 80

15. try/except/else/Finally construct in Python?
16. Given a string, put the lower case and upper-case letters together
s1 = "AIConnectConsulting"

Output: "AICConnectonsulting"

17. Closures

18. compositions

19. Recursion in Python and give me an example

20. When do you use List, tuple, dictionary and set. What is the difference between them? Write me a sample list, tuple, dictionary, and set.

21. what happens when we try to add new element to tuple? If we get error then do we get it at the time of execution?

22. can you print the current date time?

Can you print the date from 3 days 30 minutes from now?

Can you print the date for 2 years and 4 months from now?

23. can you please explain me the decorator and write me a sample code.

24. write a code for an infinite series and print the first 10 numbers

25. If the key is not present in a dictionary then it will give an error. How to get default value.

26. how to get key from value in a dictionary

27. Write code to read from CSV and write to CSV

28. Difference between linear search and binary search. Which is more efficient.

Write the code for each algorithm by taking an list as input.

29. Write the logic for Infinite Fibonacci series and Print the first 15 numbers in the series.

30. Write a function to capitalize the words.

Case 1: ai connect consulting

o/p : Ai Connect Consulting

Case 2: message

o/p : Message

Case 3: 1234alpahanumeric

o/p : 123Alpahanumeric

The function should cater to all the cases above.

31. Write a function to find the longest common prefix string amongst an array of strings.

If there is no common prefix, return an empty string "".

Example 1:

Input: `strs = ["flower", "flow", "flight"]`

Output: "fl"

32. pass by value and pass by reference in python. What works in Python Give me an example.