

1. What is python ?
2. Data Types in python?
3. How to comment single line ?
4. Difference between list and tuple ?
5. What is function in python ?
6. Data types in python ?
7. What is local variable and global variables in python ?
8. Write a Python program to:

Prompt the user to enter an integer.

Prompt the user to enter a floating-point number.

Prompt the user to enter a string.

Display the type of each input.

9. Write a Python program to print all the even numbers from 1 to 20 using a for loop. If a number is divisible by 4, print "Divisible by 4" instead of the number.
10. Write a Python program to find the sum of all numbers between 1 and 100 that are divisible by 3. Use a while loop.
11. Write a function in Python that takes two parameters, 'a' and 'b', and returns their sum and product.
12. Write a Python program that initializes a list of numbers and then:

Prints the sum of all the numbers in the list.

Prints the largest and smallest numbers in the list.

Prints the list in reverse order.

13. Create a dictionary in Python that represents a student's grades in different subjects. The keys should be subject names, and the values should be the corresponding grades. Write a function that calculates and returns the average grade.
14. Write a Python program that takes two sets and prints the union, intersection, and difference of these sets.
15. Create of Generator function of Generating Cubes.
16. Int object is iterable?
17. String object is Iterator?
18. From the above names you have to Separate Letters and you have to append that letters in one empty list. `Name_list = ["Sachin","Rohit","Dhoni",]`
19. You have to replace/Change value 10.5 with 1000. `b = [1,2,['Name',10.5,True],12,3,5]`
20. You have to take input for course names from PYTHON and JAVA.  
You have to take one more input for Discount, in which if coupon code is NEW2024 then you have to give discount of 1000, and if coupon code is FEB2024 you have to give discount of 500r.  
Write code for it.