

Here are 100 basic Python programming questions to help you practice and solidify your understanding of Python fundamentals:

1-10: Basic Input/Output

1. Write a Python program to print "Hello, World!"
2. Write a Python program to take two integers as input and print their sum.
3. Write a program to calculate the area of a rectangle.
4. Write a Python program to check if a number is even or odd.
5. Write a Python program to take a string as input and print it in reverse order.
6. Write a Python program to convert temperature from Celsius to Fahrenheit.
7. Write a program to take a list of numbers and print their sum.
8. Write a Python program to swap two variables without using a temporary variable.
9. Write a Python program to find the length of a string.
10. Write a program that reads an integer and prints its multiplication table.

11-20: Control Structures (if-else, loops)

11. Write a Python program to check whether a number is positive, negative, or zero.
12. Write a program to find the largest among three numbers.
13. Write a Python program to print all prime numbers between 1 and 100.
14. Write a Python program to calculate the factorial of a number.
15. Write a Python program to print the Fibonacci sequence up to n terms.
16. Write a program to check if a year is a leap year.
17. Write a Python program to find the greatest common divisor (GCD) of two numbers.
18. Write a Python program to print the sum of all numbers in a given range.
19. Write a program to find whether a given number is Armstrong or not.
20. Write a Python program to print all even numbers between 1 and 50.

21-30: Lists and Tuples

21. Write a program to find the maximum and minimum numbers in a list.
22. Write a Python program to reverse a list.
23. Write a Python program to find the sum of all elements in a list.
24. Write a Python program to count the number of occurrences of an element in a list.
25. Write a program to merge two lists into a single list.
26. Write a Python program to remove duplicates from a list.
27. Write a Python program to find the second largest number in a list.
28. Write a Python program to check if an element exists in a list.
- ~~29.~~ Write a program to find the intersection of two lists.
30. Write a Python program to convert a list of tuples into a dictionary.

31-40: Strings

31. Write a Python program to count the number of vowels in a string.
32. Write a program to check if a string is a palindrome.
33. Write a Python program to find the frequency of characters in a string.
34. Write a Python program to remove all spaces from a string.
35. Write a Python program to check if two strings are anagrams.

36. Write a program to capitalize the first letter of each word in a string.
37. Write a Python program to reverse the words in a given sentence.
38. Write a program to find the longest word in a sentence.
39. Write a Python program to replace all occurrences of a substring in a string.
40. Write a Python program to count the number of words in a string.

41-50: Functions

41. Write a Python function to check if a number is prime.
42. Write a Python function to calculate the sum of all elements in a list.
43. Write a Python function that returns the factorial of a number.
44. Write a Python function to find the maximum of three numbers.
45. Write a Python function to reverse a string.
46. Write a function to check if a number is a perfect square.
47. Write a function that returns the greatest common divisor (GCD) of two numbers.
48. Write a function to check if a number is a palindrome.
49. Write a function to convert a decimal number to binary.
50. Write a Python function that accepts a list and returns a new list with unique elements.

51-60: File Handling

51. Write a Python program to open a file and read its contents.
52. Write a program to count the number of lines in a text file.
53. Write a Python program to append text to a file.
54. Write a Python program to read a file line by line.
55. Write a program to copy the contents of one file to another.
56. Write a Python program to check if a file exists.
57. Write a program to write a list of numbers to a text file.
58. Write a Python program to read a CSV file.
59. Write a Python program to count the occurrences of a word in a text file.
60. Write a program to merge two text files into one.

61-70: Dictionaries

61. Write a Python program to create a dictionary from two lists.
62. Write a program to merge two dictionaries.
63. Write a Python program to get the keys of a dictionary.
64. Write a Python program to get the values of a dictionary.
65. Write a program to check if a key exists in a dictionary.
66. Write a Python program to update the value of a key in a dictionary.
67. Write a Python program to remove a key from a dictionary.
68. Write a Python program to find the maximum value in a dictionary.
69. Write a Python program to sort a dictionary by its keys.
70. Write a program to count the occurrences of each element in a list using a dictionary.

71-80: Sets

71. Write a Python program to create a set and add elements to it.
72. Write a program to find the union of two sets.

73. Write a Python program to find the intersection of two sets.
74. Write a program to find the difference between two sets.
75. Write a Python program to check if a set is a subset of another set.
76. Write a Python program to remove an element from a set.
77. Write a Python program to check if an element exists in a set.
78. Write a program to convert a list into a set.
79. Write a Python program to clear all elements from a set.
80. Write a Python program to find the symmetric difference between two sets.

81-90: Error Handling

81. Write a Python program to handle division by zero.
82. Write a program that raises an exception if the input is not a number.
83. Write a Python program to catch multiple exceptions.
84. Write a program to raise a custom exception.
85. Write a Python program to handle file not found errors.
86. Write a program that handles a type error.
87. Write a Python program that uses a try-finally block.
88. Write a program to catch an index out of range exception.
89. Write a Python program to handle invalid dictionary keys.
90. Write a program to catch and handle a value error.

91-100: Miscellaneous

91. Write a Python program to find the sum of digits of a number.
92. Write a Python program to generate a random number.
93. Write a Python program to count the number of digits in a number.
94. Write a program to find the square root of a number without using built-in functions.
95. Write a Python program to check if a string contains only numbers.
96. Write a program to find the sum of even and odd numbers in a list separately.
97. Write a Python program to convert a decimal number to hexadecimal.
98. Write a Python program to generate the first n prime numbers.
99. Write a Python program to check if a string contains any special characters.
100. Write a Python program to sort a list of tuples based on the second element.