Python Assignment

🐍 Python Assignment Questions

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1. Write a Python program to find the second largest number in a list without using the `sort()` method.

2. Remove duplicates from a list without using `set()` and return it in sorted order.

3. Find the sum and average of a list of numbers.

4. Create a program to check if a number is prime.

5. Count the number of vowels, consonants, digits, and special characters in a given string.

6. Print all even numbers between 1 and 100 using a `for` loop.

7. Write a program to print the multiplication table of a number entered by the user.

8. Create a list of numbers from 1 to 100 that are divisible by both 3 and 5.

9. Take a number input and print its reverse.

10. Count the frequency of each character in a string and store it in a dictionary.

11. Write a Python program to generate the first n prime numbers.

12. Check whether a number is a palindrome or not.

13. Count how many times a specific element appears in a list.

14. Create a list of squares of even numbers between 1 and 50.

15. Accept a list and return a new list with only unique elements (preserve order).

🧠 Section B: Functions (Q16–Q30)

16. Write a function to check if a number is even or odd.

17. Create a function that takes a list of numbers and returns their cumulative sum.

18. Write a recursive function to find the factorial of a number.

19. Write a function to print the Fibonacci series up to n terms.

20. Define a function that checks if a given string is a palindrome.

21. Create a function that returns the maximum and minimum elements from a list.

22. Write a function to check whether a string is a pangram.

23. Create a function that finds and returns all prime numbers in a given range.

24. Write a function to return the number of uppercase and lowercase letters in a string.

25. Write a function to compute the sum of digits of a number.

26. Write a function to count words in a sentence.

27. Create a function to remove all punctuation from a string.

28. Create a function that finds the GCD (greatest common divisor) of two numbers.

29. Write a function that takes a list and returns only those elements that appear more than once.

30. Create a function to return the largest of three numbers.

📄 Section C: String, List, Dictionary & Tuple Operations (Q31–Q40)

31. Write a program to sort words in a sentence alphabetically.

32. Concatenate two dictionaries and print the result.

33. Count how many vowels are present in each word of a sentence.

34. Accept a tuple and convert it into a list.

35. Remove all whitespace from a given string using a function.

36. Merge two lists into a dictionary using one as keys and the other as values.

37. Write a program to get the key with the maximum value in a dictionary.

38. Accept a string and print a dictionary with word frequencies.

39. Write a program to check if a key exists in a dictionary.

40. Write a program to replace all the vowels in a string with '*'.

📂 Section D: File Handling (Q41–Q45)

41. Write a Python program to read the contents of a file and display it.

42. Count the number of words in a file.

43. Copy contents of one file to another.

44. Print only the lines that have more than 50 characters from a text file.

45. Write a program to write a list of strings into a text file (one string per line).

⚠️ Section E: Exception Handling (Q46–Q50)

46. Write a program to take two numbers as input and handle division by zero.

47. Handle invalid user input (e.g., entering a string when a number is expected).

48. Try to open a file that doesn't exist and handle the `FileNotFoundError`.

49. Create a list of numbers and try accessing an invalid index. Handle the exception gracefully.

50. Use a `try-except-finally` block to demonstrate the execution of the `finally` clause.