

-Assignment 1

Instructions

- Write code for each question from tasks given.
- Write clean code with proper comments.
- Assignment will be submitted on google form.
- Each of the tasks carries 1 point.
- Total sum of points will be shown after evaluating assignments.
- After each evaluation the leader board will be updated.
- Do copy paste answers from online.

“An incomplete assignment is better than a copied assignment”

Tasks:

1. Declare a variable name and assign it the value "John".
2. Create a variable age and set it to 25.
3. Convert the string "15" to an integer.
4. Convert the integer 42 to a string.
5. Write a condition to check if x is greater than 10.
6. Write a condition to check if y is equal to 5.
7. Write a condition to check if z is not equal to 7.
8. Write an if-else statement to print "Even" if num is divisible by 2, otherwise print "Odd".
9. Print all even numbers from 1 to 10 using a loop.
10. Calculate the sum of all numbers from 1 to 10 using a loop.
11. Print the numbers from 10 to 1 in descending order using a loop.
12. Write a loop to calculate the factorial of a number n.
13. Print the first 10 elements of the Fibonacci sequence using a loop.
14. Create a list of numbers with the elements [1, 2, 3, 4, 5].
15. Access and print the third element of the list numbers.
16. Append the number 6 to the list numbers.
17. Remove the number 3 from the list numbers.
18. Check if the number 4 is present in the list numbers.
19. Create a tuple of colors with the elements "red", "green", "blue".
20. Access and print the second element of the tuple colors.
21. Concatenate the tuples (1, 2, 3) and (4, 5, 6).
22. Create a dictionary person with keys "name" and "age" and values "John" and 25.
23. Access and print the value associated with the key "name" in the dictionary person.
24. Change the value associated with the key "age" in the dictionary person to 30.
25. Check if the key "gender" exists in the dictionary person.

26. Write a function to calculate the area of a rectangle given its length and width.
27. Write a function to check if a number is prime.
28. Write a function that takes a list as input and returns the sum of all its elements.
29. Write a function to reverse a string.
30. Write a function to count the number of occurrences of a character in a string.
31. Write a function to calculate the average of a list of numbers.
32. Write a function that prints all the keys of a dictionary.
33. Write a function to check if a given string is a palindrome.
34. Write a program to find the largest number in a list.
35. Write a program to sort a list in ascending order.
36. Write a program to remove all duplicates from a list.
37. Write a program to find the common elements between two lists.
38. Write a program to find the factorial of a number using recursion.
39. Write a program to print the multiplication table of a number.
40. Write a program to calculate the sum of digits in a number.