ASSIGNMENT 1

1. Write a C program to calculate the sum of all natural numbers from 1 to n using a loop.
2. Create a function to find the factorial of a number without using recursion.
3. Implement a program to find the largest element in an integer array.
4. Write a C program to check if a given string is a palindrome or not.
5. Develop a program to reverse a string without using any library functions.
6. Create a function to check if a number is prime and use it to print all prime numbers in a given range.
7. Write a program to count the number of vowels and consonants in a string.
8. Implement a C program to find the second smallest element in an array of integers.
9. Create a menu-driven calculator program that can perform basic operations (addition, subtraction, multiplication, division).
10. Write a program to find the GCD (Greatest Common Divisor) of two numbers using the Euclidean algorithm.
11. Develop a C program to count the occurrences of a specific character in a string.
12. Create a program that converts a given string to uppercase.
13. Implement a function to calculate the power of a number using a loop.
14. Write a C program to check if a number is a perfect number or not.
15. Develop a program to print a pattern of a right-angled triangle using nested loops.
16. Create a function that removes all spaces from a given string and returns the modified string.
17. Write a program to find the intersection of two arrays.
18. Implement a C program to count the number of words in a sentence (words are separated by spaces).
19. Develop a program to reverse the elements of an array in place.
20. Create a C program to concatenate two strings without using any library functions.