



ONE-STOP
SOLUTION

FOR ALL NEWBIES

BEGINNERS

Coding sheet

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Basic

1) Write a Program to print "Hello, World!"

2) Write a Program to Print Integer Number Entered by User

3) Write a Program to Add Two Integer Numbers Entered by User

4) Write a program where the user is asked to enter two integers (divisor and dividend) and the quotient and the remainder of their division is computed.(Both divisor and dividend should be integers.)

5) Write a Program to Find Size of int, float, double and char in your computer

6) Write a Program to Swap Two Numbers

7) Write a Program to Find ASCII Value of a Character

8) Write a Program to Multiply two decimal Numbers entered by User

If-else

1) Write a Program to Check Whether Number is Even or Odd **IF THIS HELPING YOU THEN ALSO SHARE WITH OTHER.**

2) Write a Program to Check Whether a Character is Vowel or Consonant.

3) Write a Program to Find Largest Number Among Three Numbers entered by users

4) Write a Program which accepts coefficients of a quadratic equation from the user and displays the roots (both real and complex roots depending upon the discriminant).

5) Write a Program to Check whether a year entered by user is Leap Year or not



Loops

1) Write a Program to Calculate Sum of first N Natural Numbers (here value of N is Entered by user)

2) Write a Program to Find Factorial of a given number N (N is entered by user)

3) Write a Program to Generate Multiplication Table of a number (entered by the user) using a for loop.

4) Write a Program to Display Fibonacci Series upto nth term (n is entered by user)

5) Write a Program to Display Fibonacci Series upto certain number n (n is entered by user)

Example: n=100

Output:

Fibonacci Series: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89,

6) Write a Program to Find GCD or HCF of two numbers entered by user

7) Write a Program to Find LCM of two numbers entered by user

8) Write a Program to Reverse a given Number N by user

9) Write a Program to display sum of all digits of a given Number N by user

10) Write a Program to Calculate Power of a Number using inbuilt pow() function by taking two inputs from users as Base and exponent respectively

11) Write a Program to Calculate Power of a Number without using inbuilt pow() function by taking two inputs from users as Base and exponent respectively

12) Write a Program to Check Whether a Number N entered by user is Palindrome or Not

13) Write a Program to Check Whether a Number is Prime or Not

14) Write a Program to Display Prime Numbers Between Two Intervals (entered by user)

Example:

Enter two numbers: 0 20

Prime numbers between 0 and 20 are:

2 3 5 7 11 13 17 19

15) Write a Program to check whether a number entered by the user is an Armstrong number or not.

16) Write a Program to Display all Factors of a Number entered by User

Switch

1) Write a Program to Make a Simple Calculator to Add, Subtract, Multiply or Divide Using Switch case

The program should takes an arithmetic operator (+, -, *, /) and two operands from a user and performs the operation on those two operands depending upon the operator entered by the user.

Pattern

Print the below Pattern using loops

1) Solid Rectangular star

```
* * * * *  
* * * * *  
* * * * *
```

2) Hollow Rectangular star

```
* * * * *  
*       *  
* * * * *
```

3) Half Pyramid Star Pattern

```
*  
* *  
* * *  
* * * *  
* * * * *
```

4) Inverted Half pyramid

```
* * * * *  
* * * *  
* * *  
* * *  
* *  
*  
*
```

5) Full Pyramid Star Pattern

```
  *  
 * *  
* * *  
* * * *  
* * * * *  
* * * * *  
* * * * *
```

6) Inverted Full pyramid

```
* * * * *  
* * * * *  
* * * *  
* * * *  
* * *  
* *  
*  
*
```

7)Hollow Full Pyramid Star

```
  *  
 * *  
*  *  
*   *  
*****
```

8) Half pyramid using numbers

```
1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5
```

9) Pascal Triangle

```
1  
1 1  
1 2 1  
1 3 3 1  
1 4 6 4 1
```

Function

1) Write a Program to Display Prime Numbers Between Two Intervals (entered by the user) Using Functions

2) Write a Program to check if an integer (entered by the user) can be expressed as the sum of two prime numbers, if yes then print all possible combinations with the use of functions.

Example.

Enter a positive integer: 34 f

OUTPUT:

34 = 3 + 31

34 = 5 + 29

34 = 11 + 23

34 = 17 + 17

3) Write a Program to Convert Binary Number to Decimal manually by creating user-defined functions.

4) Write a Program to Convert Decimal to Binary number manually by creating user-defined functions.

Recursion

1) Write a Program to Find Sum of N Natural Numbers (entered by users) using Recursion

2) Write a Program to Calculate Factorial of a Number Using Recursion

3) Write a Program to Find G.C.D of two numbers entered by user Using Recursion

4) Write a Program that calculates the power of a number using recursion where base and exponent is entered by the user.

Recursion

Array

1) Write a Program that takes N elements (max. value of N is 100 and N is the float number specified by user) from user, stores data in an array and Calculates the average of those numbers.

2) Write a Program that takes n element from user and displays the largest element of an array

3) Write a Program that calculates the standard deviation of 10 data using arrays

4) Write a Program that takes the array of five element and the elements of that array are accessed using pointer.

Multi Dimensional Array

5) Write a Program that adds two matrices using Multi-dimensional Arrays where the number of rows r and columns c is entered by user (Value of r and c < 100)

6) Write a Program takes two matrices of order $r_1 \times c_1$ and $r_2 \times c_2$ respectively. Then, the program multiplies these two matrices (if possible) and displays it on the screen.

7) Write a Program that takes a matrix of order $r \times c$ from the user and computes the transpose of the matrix.

8) Write a Program that takes three integers from the user and swaps them in cyclic order using pointers.

Example:

Enter value of a, b and c respectively: 1 2 3

Value after swapping numbers in cycle:

a=3

b=1

c=2

String

1) Write a Program to Find the Frequency of given Character by user in a String

2) Write a Program to Find the Number of Vowels, Consonants, Digits and White Spaces in a String

3) Write a Program to Remove all Characters in a String Except Alphabets.

Example:

Enter a string: p2'r"o@gram84iz./

Output String: programiz

4) Write a Program to Find the Length of a String entered by user

5) Write a Program to Concatenate (join) Two Strings entered by user

7) Write a C++ program to check if a given string is a Palindrome or not.

8) Write a C++ program to count all the words in a given string. Words must be separated by only one space

Example:

Sample Input: Siddharth Singh

Sample Output: number of words -> 2

9) Write a C++ program to capitalize the first letter of each word of a given string. Words must be separated by only one space

Example:

Sample Input: cpp string exercises

Sample Output: Cpp String Exercises

10) Write a C++ program to find the largest word in a given String.

Example:

Sample Input: C++ is a general-purpose programming language.

Sample Output: programming