Algorithm in Programming

In programming, algorithm are the set of well defined instruction in sequence to solve a program. An algorithm should always have a clear stopping point.

**Qualities of a good algorithm**

1. Inputs and outputs should be defined precisely.
2. Each steps in algorithm should be clear and unambiguous.
3. Algorithm should be most effective among many different ways to solve a problem.
4. An algorithm shouldn't have computer code. Instead, the algorithm should be written in such a way that, it can be used in similar programming languages.

**Examples Of Algorithms In Programming**

**Write an algorithm to add two numbers entered by user.**

Step 1: Start

Step 2: Declare variables num1, num2 and sum.

Step 3: Read values num1 and num2.

Step 4: Add num1 and num2 and assign the result to sum.

sum←num1+num2

Step 5: Display sum

Step 6: Stop

**Write an algorithm to find the largest among three different numbers entered by user.**

Step 1: Start

Step 2: Declare variables a,b and c.

Step 3: Read variables a,b and c.

Step 4: If a>b

If a>c

Display a is the largest number.

Else

Display c is the largest number.

Else

If b>c

Display b is the largest number.

Else

Display c is the greatest number.

Step 5: Stop

**Write an algorithm to find the factorial of a number entered by user.**

Step 1: Start

Step 2: Declare variables n,factorial and i.

Step 3: Initialize variables

factorial←1

i←1

Step 4: Read value of n

Step 5: Repeat the steps until i=n

5.1: factorial←factorial\*i

5.2: i←i+1

Step 6: Display factorial

Step 7: Stop

**Write an algorithm to check whether a number entered by user is prime or not.**

Step 1: Start

Step 2: Declare variables n,i,flag.

Step 3: Initialize variables

flag←1

i←2

Step 4: Read n from user.

Step 5: Repeat the steps until i<(n/2)

5.1 If remainder of n÷i equals 0

flag←0

Go to step 6

5.2 i←i+1

Step 6: If flag=0

Display n is not prime

else

Display n is prime

Step 7: Stop

**Write an algorithm to find the Fibonacci series till term≤1000.**

Step 1: Start

Step 2: Declare variables first\_term,second\_term and temp.

Step 3: Initialize variables first\_term←0 second\_term←1

Step 4: Display first\_term and second\_term

Step 5: Repeat the steps until second\_term≤1000

5.1: temp←second\_term

5.2: second\_term←second\_term+first term

5.3: first\_term←temp

5.4: Display second\_term

Step 6: Stop

Algorithm is not the computer code. Algorithm are just the instructions which gives clear idea to you idea to write the computer code