Day-22 of 101 days of coding challenge

⇨ **Inclusion-Exclusion Concepts:**

➔ **Suppose we have a two subject one math and English**
➔ **N1 student chosen math, N2 English and N3 both Now need to find total number of students------**
➔ **Total students = N1+ N2-N3 (because N3 counts in English and math both need to subtract from the number so that duplicate students can be removed)**

Ques: how many numbers are divisible by 5 and 7 in between 1 to 100?

5 div = 5,10,15,20,25,30,35,40,45,50,55,60,65,70,75,80,85,90,95
7 div = 7,14,21,28,35,42,49,56,63,70,77,84,91,98

Code:-

```
// how many numbers are divisible by 5 and 7 in between 1 to 100

#include<iostream>

using namespace std;

int main()
{
    int c1 = 0, c2 = 0, c3 = 0;

    int totalNumber;
```

```cpp
    for(int i = 1; i<100; i++)

    {

        if(i%5 == 0)

            c1++;

        if(i%7 == 0)

            c2++;

        if(i%5 == 0 && i%7 == 0)

            c3++;


    }


    totalNumber = c1+c2-c3;

    cout<<"Total Number divided by 5 and 7 is:"<<totalNumber<<endl;

    return 0;

}
```

Output:-

```
Total Number divided by 5 and 7 is:31

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Process exited after 0.09796 seconds with return value 0
Press any key to continue . . .
```