Answer on Question #47759 - Programming, C++

Write a complete program that reads at most 30 positive integer values, or it will stops reading if the user enters -9999
If the user enters a negative number, the number should not be accepted and he should have the chance to re-enter the number again.

After you stop reading integers from keyboard, the program should be successfully calculate and print the following:

The number of integers between 0 & 200 is: …
The number of integers between 200 & 500 is:….
The number of integers above 500 is:…
The number of primes is:….
The maximum prime number entered is:
The maximum number among all integers is:….

Solution.

```
//Connecting library
#include <iostream>

using namespace std;

//Function computing the sum of prime numbers
bool isPrime(int a)
{
		for(int j = 2; j < a; j++)
		{
			if(a % j == 0)
			{
				return 0;
			}
		}
		if(a>1)
		{
			return 1;
		}
		else
		{
		    return 0;
		}
}

//The main function
int main()
{
	int N=30;
	int a[30];//array

	for(int i=0; i<N; i++)
	{
```

```
        cout<<endl<<"Please enter the number #"<<i+1<<": ";
        cin>>a[i];

        if(a[i]==-9999)
        {
                N=i;
                break;
        }

        while(a[i]<0)
        {
                cout<<endl<<"Please, re-enter: ";
                cin>>a[i];
        }
}

cout<<"========"<<endl<<endl<<"The number of integers between 0 & 200 is: "<<endl;
for(int i=0; i<N; i++)
{
  if(a[i]>=0 && a[i]<=200)
  {
    cout<<a[i]<<", ";
  }
}

cout<<endl<<endl<<"The number of integers between 200 & 500 is: "<<endl;
for(int i=0; i<N; i++)
{
  if(a[i]>=200 && a[i]<=500)
  {
    cout<<a[i]<<", ";
  }
}

cout<<endl<<endl<<"The number of integers above 500 is: "<<endl;
for(int i=0; i<N; i++)
{
  if(a[i]>500)
  {
    cout<<a[i]<<", ";
  }
}

cout<<endl<<endl<<"The number of primes is: "<<endl;
for(int i=0; i<N; i++)
{
  if(isPrime(a[i]))
  {
    cout<<a[i]<<", ";
  }
}

cout<<endl<<endl<<"The maximum prime number entered is: "<<endl;
int maxPrime=0;
for(int i=0; i<N; i++)
{
  if(isPrime(a[i]))
  {
        if(maxPrime<a[i])
        {
          maxPrime=a[i];
        }
  }
}
cout<<maxPrime;
```

```
        cout<<endl<<endl<<"The maximum number among all integers is: "<<endl;
        int max=0;
        for(int i=0; i<N; i++)
        {
                if(max<a[i])
                {
                  max=a[i];
                }
        }
        cout<<max<<endl<<endl;


        ///system("pause");
return 0;
}
```