**Lab Report 02**

**Experiment Name**: Extract all the primes found in task 1 into another array called only\_primes[N].

**Code:**

#include <bits/stdc++.h>

using namespace std;

int main(){

    int prime[1000]= {0};

    int only\_primes[1000] = {0};

    int N;

    cout<<"Enter a length: ";

    cin>>N;

    cout<<endl;

    for(int i=2;i<=N;i++){

        prime[i]=i;

    }

    for(int i=2;i<=N;i+=2){

        if(prime[i] % 2 ==0)

            prime[i]=0;

    }

    prime[2]=2;

    for(int i=3;i<=N;i+=3){

        if(prime[i] % 3==0)

            prime[i]=0;

    }

    prime[3]=3;

    for(int i=5;i<=N;i+=5){

        if(prime[i] % 5 ==0)

            prime[i]=0;

    }

    prime[5]=5;

    for(int i=7;i<=N;i+=7){

        if(prime[i] % 7 ==0)

            prime[i]=0;

    }

    prime[7]=7;

    for(int i=0;i<=N;i++){

            if(prime[i] != 0 )

               only\_primes[i]  = prime[i];

    }

    for(int i=0;i<=N;i++){

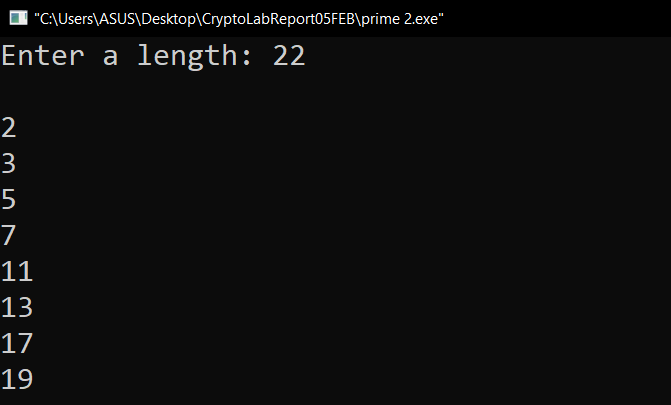
            if(only\_primes[i] != 0 )

               cout<<only\_primes[i] <<endl;

    }

}

**Output:**

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