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DATE:29/03/22

C programming lab

Assignment_Four_(1)

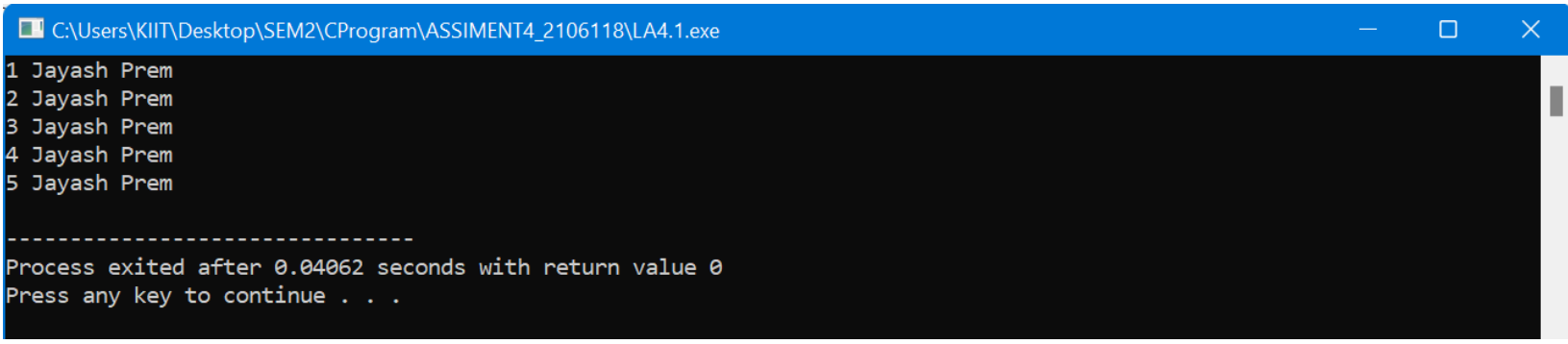
LA4.1 WAP to print your name 5 times using a while loop.
LA4.2 WAP to input any integer and print your name that many times.
LA4.3 WAP to print the series as 1 2 3 4 5 6 7 .....100.
LA4.4 WAP to print the series as 1 3 7 15 31 .....n, where n is given by user.
LA4.5 WAP to print the series as 1 1 2 3 5 8 13 .....n, where n is given user.
LA4.6 WAP to print the series as 3 5 7 11 13 17.....n, where n is given by user.
LA4.7 WAP to print all odd and even numbers separately within a given range.The range is input through the user.

HA4.1 WAP to check whether an input integer is a strong number or not. (Hint: If the sum of factorials of all digits of a number are equal to the number are equal to the number, it is called a strong number)
HA4.2 WAP to find out the prime factors of a number entered through keyboard (distinct).
*/*Hints: A prime number is any number with no divisors other than itself and 1, such as 2 and 5. Any number can be written as a product of prime numbers in a unique way (except for the order). These are called prime factors of a number. In other words, In number theory, the prime factors of a positive integer are the prime numbers that divide that integer exactly, without*

leaving a remainder. The process of finding these numbers is called integer
factorization, or prime factorization.
• Enter a number : 100
• The prime factors of 100 are 2(2) and 5(2)
*• That is, 100 = 2 x 2 x 5 x 5, and those numbers are primes. */*

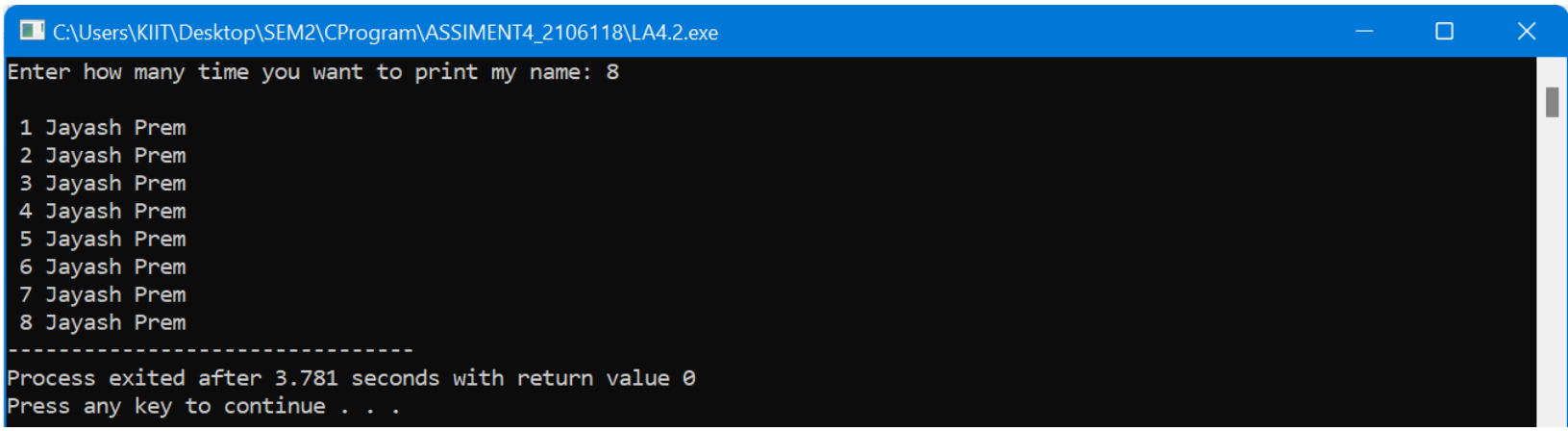
LA4.1 WAP to print your name 5 times using a while loop.

```
/*
Jayash prem 2106118
program:LA4.1 WAP to print your name 5 times using a
while loop.
Date:23/03/22
 */
#include<stdio.h>
int main()
    {

    int i=1;
    while(i<=5)
    {
        printf("%d Jayash Prem\n",i);
        i=i+1;
    }
    return 0;
    }
```



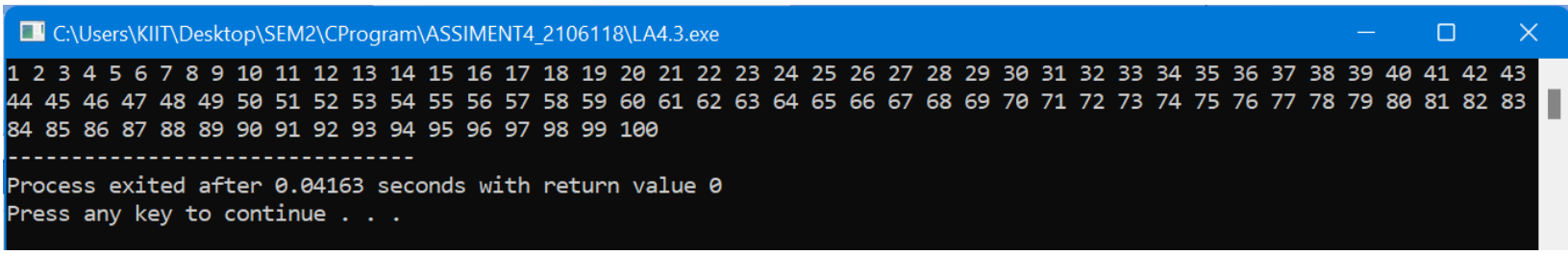
LA4.2 WAP to input any integer and print your name that many times.

```
/*
Jayash prem 2106118
program:LA4.2 WAP to input any integer and print your name
that many times.
Date:23/03/22
*/
#include<stdio.h>
int main()
    {

    int i,c;
    printf("Enter how many time you want to print my name: ");
    scanf("%d",&c);
    for(i=1;i<=c;i++)
        printf("\n %d Jayash Prem",i);
    return 0;
    }
```



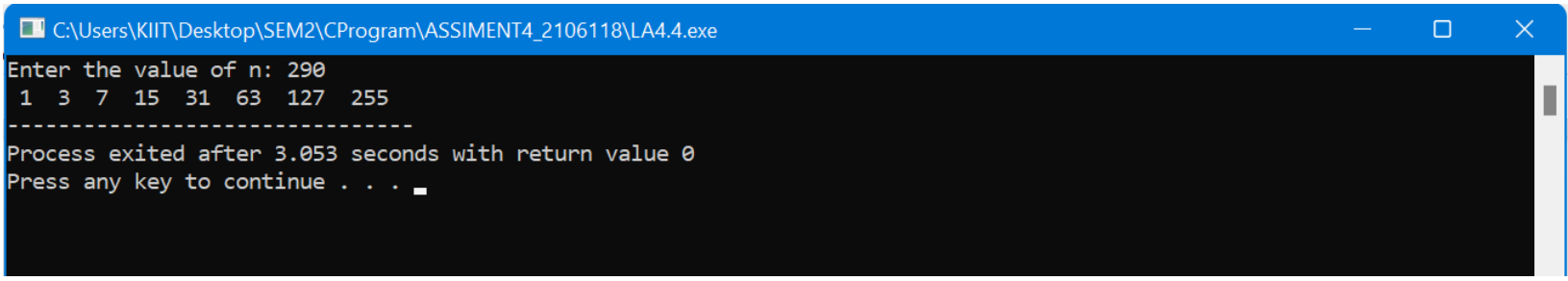
LA4.3 WAP to print the series as 1 2 3 4 5 6 7.....100

```
/*
Jayash prem 2106118
program:LA4.3 WAP to print the series as 1 2 3 4 5 6 7
..........100.
Date:23/03/22
 */
#include<stdio.h>
int main()
 {
 int i;
 for(i=1;i<=100;i++)
    printf("%d ",i);
 return 0;
 }
```



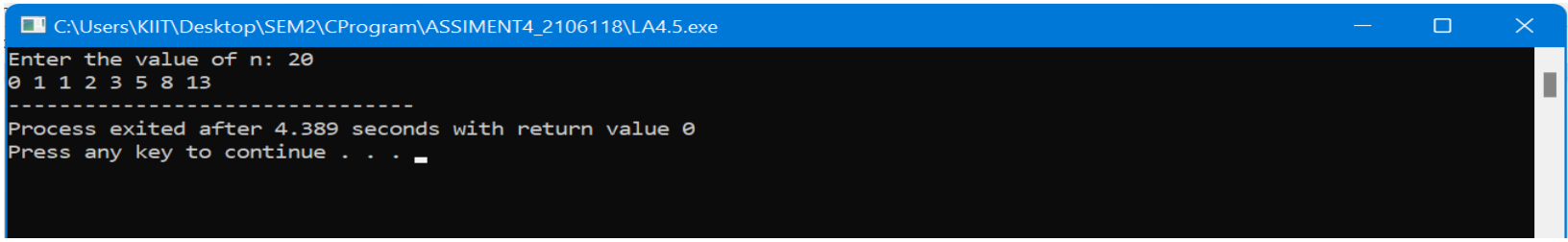
LA4.4 WAP to print the series as 1 3 7 15 31 .....n, where n is given by the user.

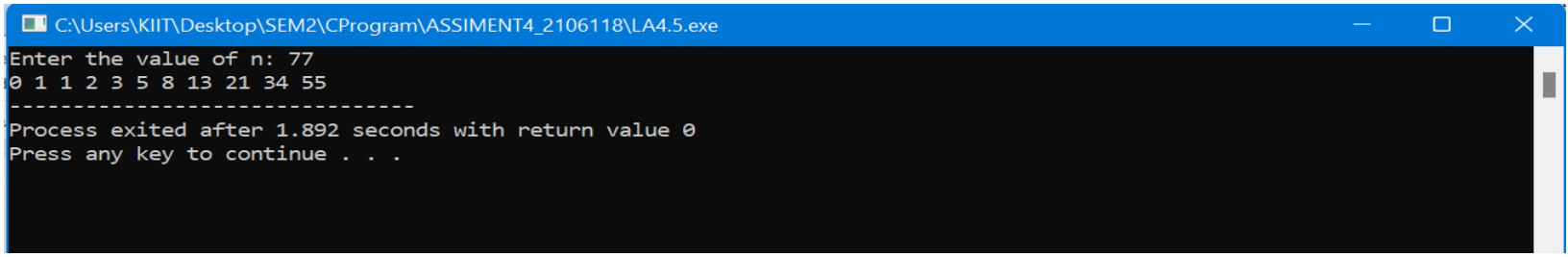
```
/*
Jayash prem 2106118
program:LA4.4 WAP to print the series as 1 3 7 15 31
.....n, where n is given by the user.
Date:23/03/22
 */
#include<stdio.h>
int main()
    {
    int i,n;
    printf("Enter the value of n: ");
    scanf(" %d",&n);
    for(i=2;i<=n;i=i*2)
        printf(" %d ",i-1);
    return 0;
    }
```



LA4.5 WAP to print the series as 1 1 2 3 5 8 13 .....n, where n is given to the user.

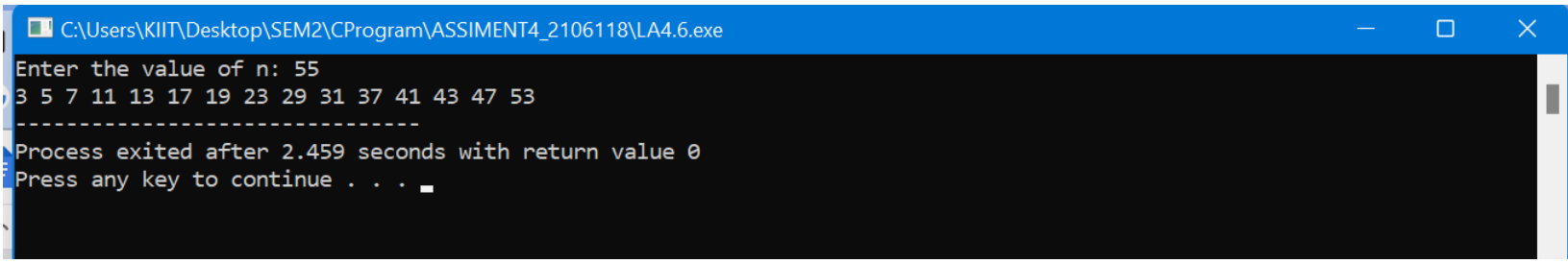
```
/*
Jayash prem 2106118
program:LA4.5 WAP to print the series as 1 1 2 3 5 8
13 .....n, where n is given to the user.
Date:23/03/22
 */
#include<stdio.h>
int main()
    {
    int i,n,a,b,c;
    printf("Enter the value of n: ");
    scanf(" %d",&n);
    a=-1;b=1;c=a+b;
    while(c<=n)
    {
        printf("%d ",c);
        a=b;b=c;c=a+b;
    }
    return 0;
    }
```





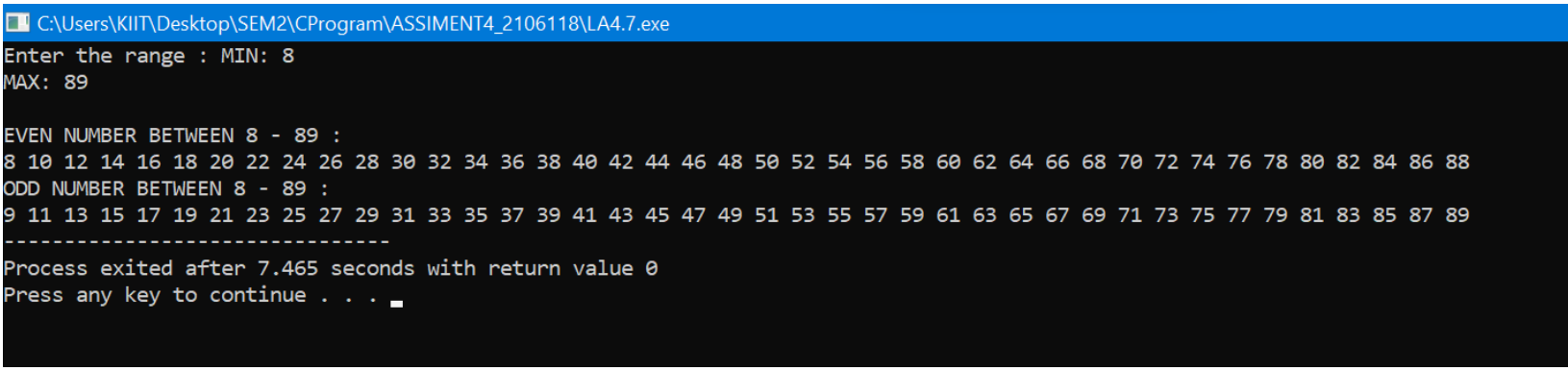
program:LA4.6 WAP to print the series as 3 5 7 11 13 17.....n, where n is given by the user.

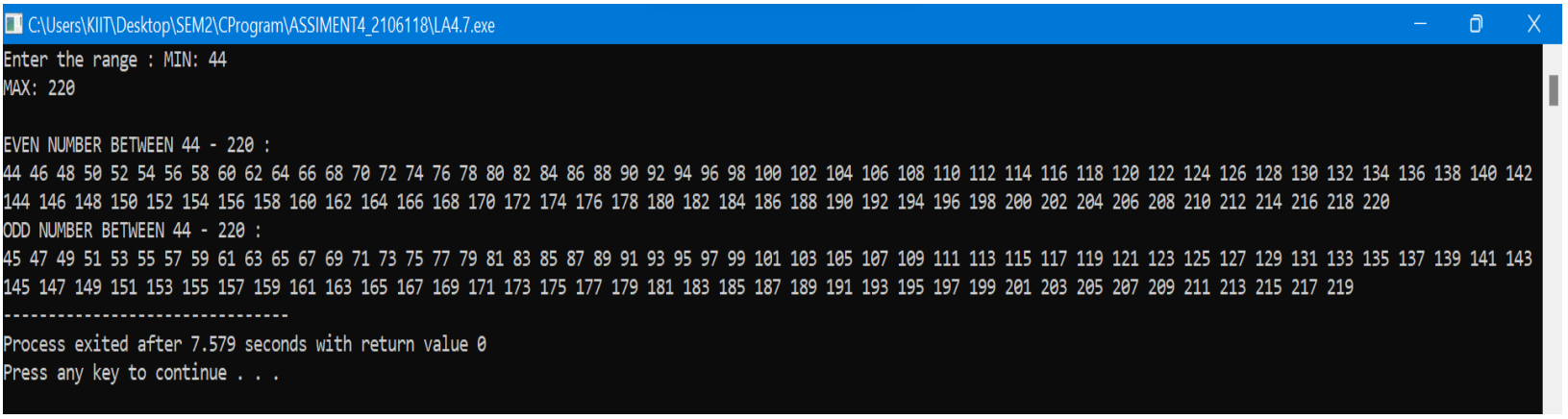
```
/*
Jayash prem 2106118
program:LA4.6 WAP to print the series as 3 5 7 11 13 17.....n,
where n is given by the user.
Date:23/03/22
 */
#include<stdio.h>
int main()
 {
 int i,n,a,c,j;
 printf("Enter the value of n: ");
 scanf(" %d",&n);
 for(i=3;i<=n;i++)
      {
           c=0;
           for(j=1;j<=i;j++)
           {
           if(i%j==0)
                c=c+1;
           }
           if(c==2)
                printf("%d ",i);
      }
 return 0;
 }
```



program:LA4.7 WAP to print all odd and even numbers separately within a given range.The range is input through the user.

```
/*
Jayash prem 2106118
program:LA4.7 WAP to print all odd and even numbers separately within a
given range.The range is input through the user.
Date:23/03/22
 */
#include<stdio.h>
int main()
    {
    int i,a,b;
    printf("Enter the range : ");
    printf("MIN: ");
    scanf(" %d",&a);
    printf("MAX: ");
    scanf(" %d",&b);
    printf("\nEVEN NUMBER BETWEEN %d - %d :\n",a,b);
    for(i=a;i<=b;i+=1)
        if(i%2==0)
        printf("%d ",i);
    printf("\nODD NUMBER BETWEEN %d - %d :\n",a,b);
    for(i=a;i<=b;i+=1)
        if(i%2!=0)
        printf("%d ",i);
    return 0;
    }
```

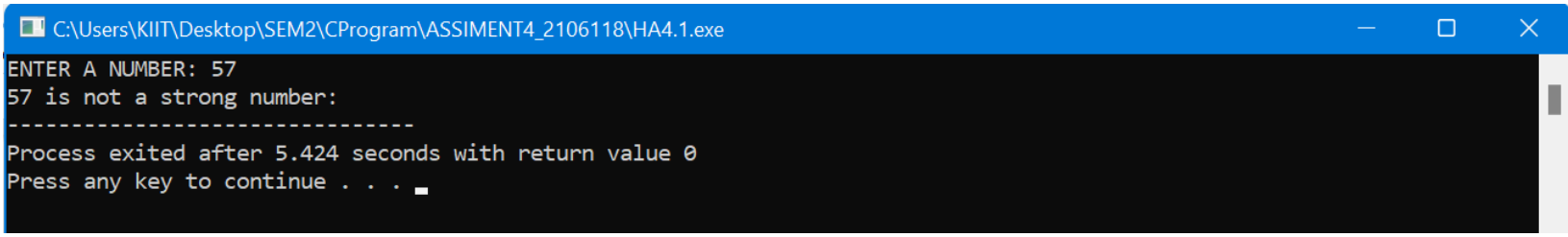


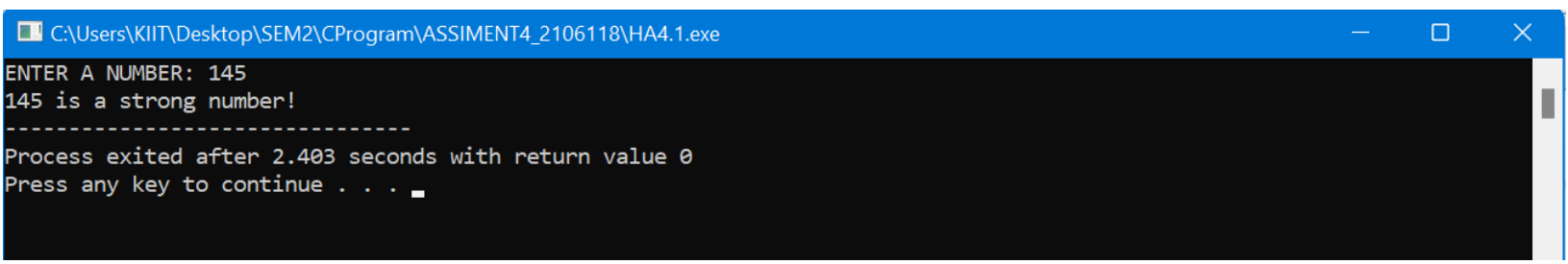


HA4.1 WAP to check whether an input integer is a strong number or not.
(Hint: If the sum of factorials of all digits of a number are equal to the
number are equal to the number, it is called a strong number)

```
/*
Jayash prem 2106118
program:HA4.1 WAP to check whether an input integer is a strong number or not.
(Hint: If the sum of factorials of all digits of a number are equal to the
number are equal to the number, it is called a strong number )
Date:23/03/22
 */
```

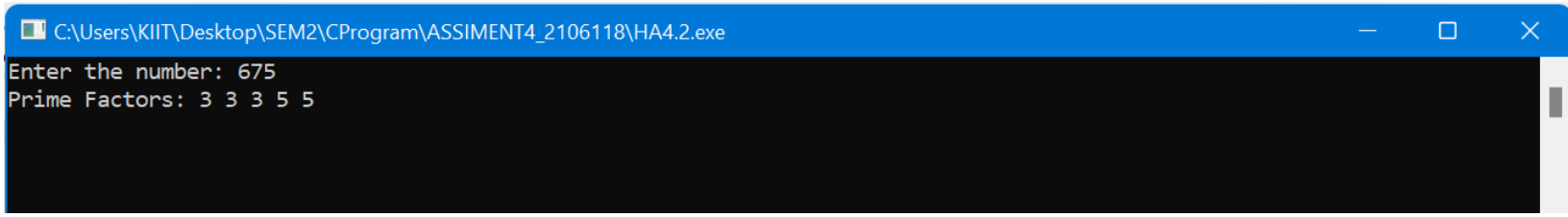
```c
#include<stdio.h>
int main()
    {
    int n,i,fact,digit,sum,temp;
    printf("ENTER A NUMBER: ");
    scanf("%d",&n);
    temp=n;
    while(n>0)
    {
        digit=n%10;
        fact=1;
        for(i=1;i<=digit;i=i+1)
            fact=fact*i;
        sum=sum+fact;
        n=n/10;
    }
    if(sum==temp)
    printf("%d is a strong number:",temp);
    else
    printf("%d is not a strong number:",temp);
    return 0;
    }
```

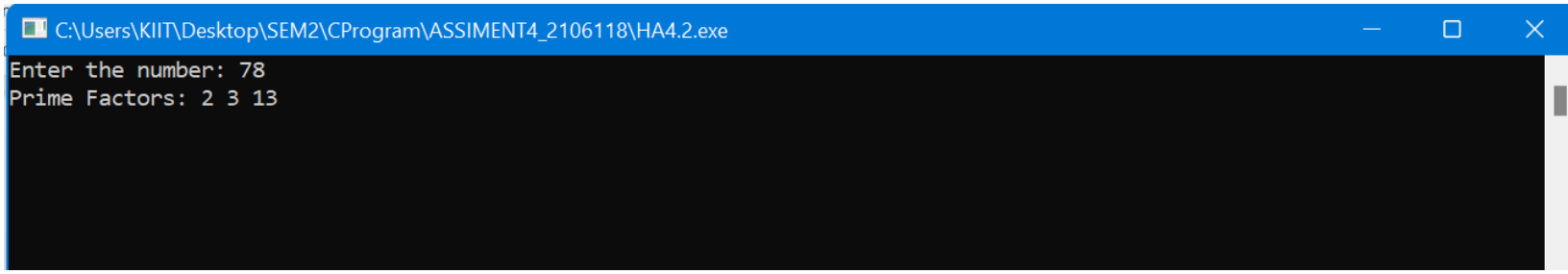




WAP to find out the prime factors of a number entered through keyboard (distinct).

```
/*
JAYASH PREM
2106118
PROGRAM:prime factors of a number entered through keyboard
*/
#include<stdio.h>
int main()
{
        int n,i,j,c;
        printf("Enter the number: ");
        scanf("%d",&n);
        printf("Prime Factors: ");
        while(n>0)
        {
         for(i=1;i<=n;i++)
         {
              if(n%i==0)
              {
                   c=0;
                   for(j=1;j<=i;j++)
                   if(i%j==0)
                   c+=1;
                   if(c==2)
                   {
                   printf("%d ",i);
                   n=n/i;
                   }
              i=1;
              }
         }
        }
 return 0;
}
```


C:\Users\KIIT\Desktop\SEM2\CProgram\ASSIMENT4_2106118\HA4.2.exe
Enter the number: 675
Prime Factors: 3 3 3 5 5


C:\Users\KIIT\Desktop\SEM2\CProgram\ASSIMENT4_2106118\HA4.2.exe
Enter the number: 78
Prime Factors: 2 3 13

**********END**********