

# BANGLADESH UNIVERSITY OF BUSINESS & TECHNOLOGY

ASSIGNMENT	: 01
COURSE CODE	: CSE102
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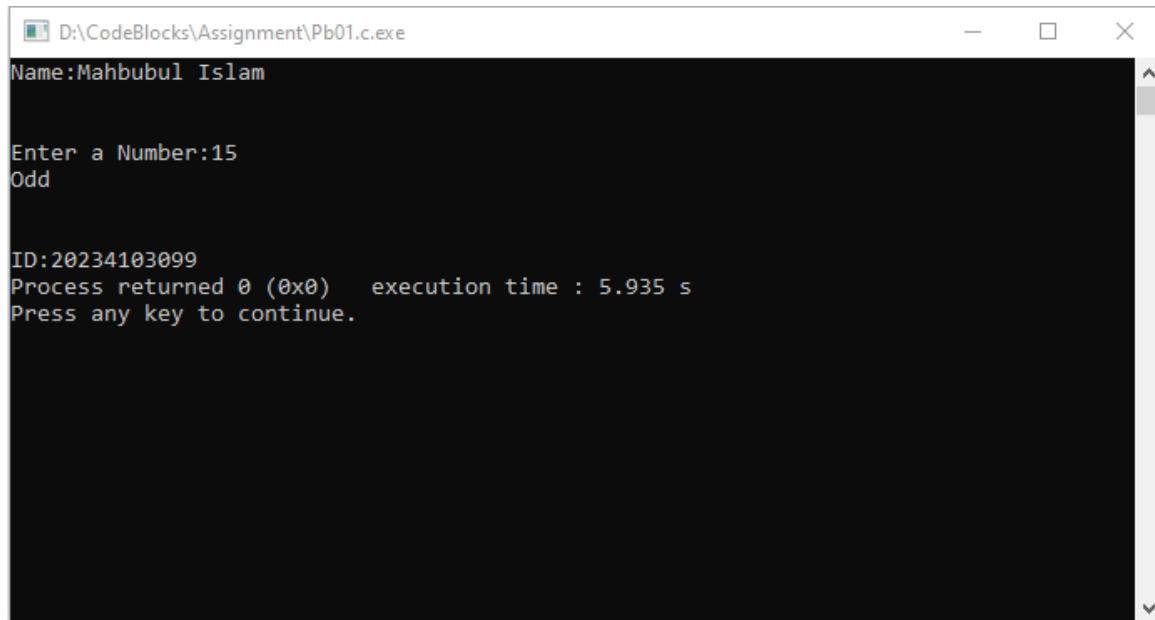
## 1.Problem: Check if a number is even or odd.

### Source Code:

```
#include<stdio.h>

int main()
{
printf("Name:Mahbubul Islam\n\n");
int num;
printf("Enter a Number:");
scanf("%d",&num);
if(num%2==0)
{
printf("Even");
}
else
{
printf("Odd");
}
printf("\n\n");
printf("ID:20234103099");
return 0;
}
```

## Output:



```
D:\CodeBlocks\Assignment\Pb01.c.exe
Name:Mahbubul Islam

Enter a Number:15
Odd

ID:20234103099
Process returned 0 (0x0)   execution time : 5.935 s
Press any key to continue.
```

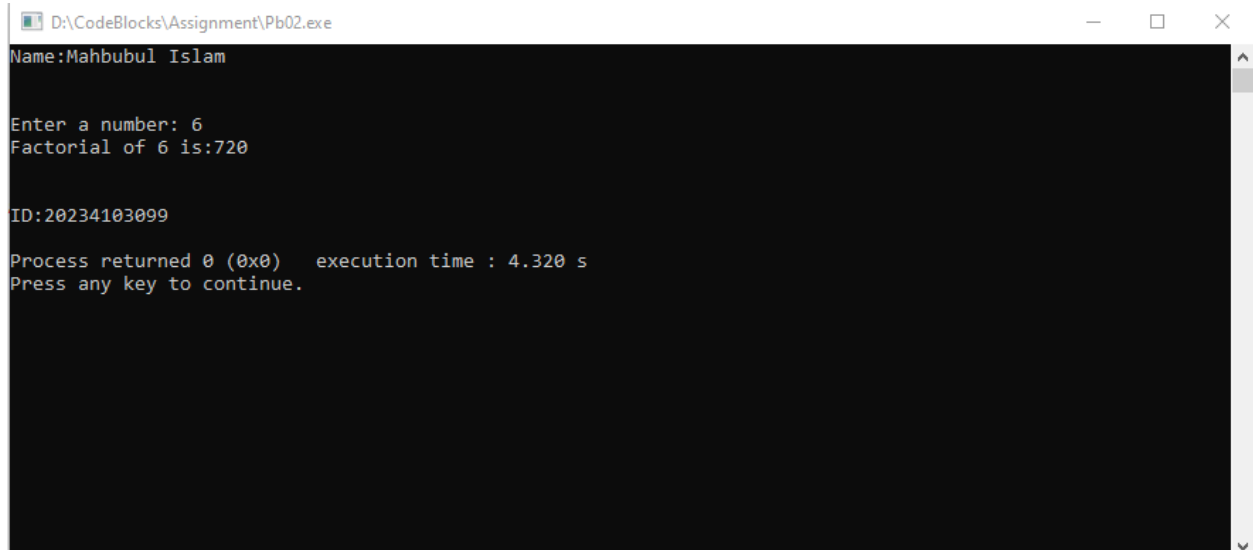
## 2. Problem: Calculate the factorial of a number.

### Source Code:

```
#include<stdio.h>

int main()
{
printf("Name:Mahbubul Islam\n\n");
int a,fa=1,num;
printf("Enter a number: ");
scanf("%d",&num);
for(a=1;a<=num;a++){
    fa=fa*a;
}
printf("Factorial of %d is:%d\n\n",num,fa);
{
    printf("ID:20234103099\n");
}
return 0;
}
```

### Output:



```
D:\CodeBlocks\Assignment\Pb02.exe
Name:Mahbubul Islam

Enter a number: 6
Factorial of 6 is:720

ID:20234103099

Process returned 0 (0x0)   execution time : 4.320 s
Press any key to continue.
```

### 3. Problem: Find the largest among three numbers.

#### Source Code:

```
#include<stdio.h>

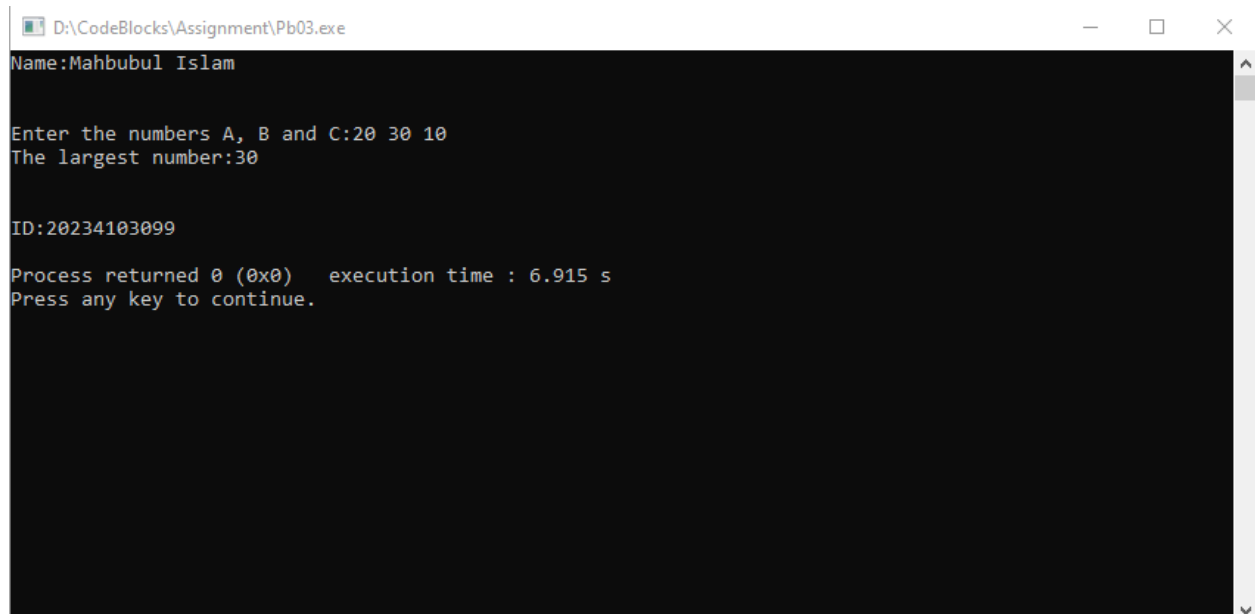
int main()
{
    int a,b,c;
    printf("Name:Mahbubul Islam\n\n");

    printf("Enter the numbers A, B and C:");
    scanf("%d %d %d", &a,&b,&c);

    if (a >= b && a >= c)
        printf("The largest number:%d\n\n", a);
    else if (b >= a && b >= c)
        printf("The largest number:%d\n\n", b);
    else
        printf("The largest number:%d\n\n", c);

    {
        printf("ID:20234103099\n");
    }
    return 0;
}
```

## Output:



```
D:\CodeBlocks\Assignment\Pb03.exe
Name:Mahbubul Islam

Enter the numbers A, B and C:20 30 10
The largest number:30

ID:20234103099

Process returned 0 (0x0)   execution time : 6.915 s
Press any key to continue.
```

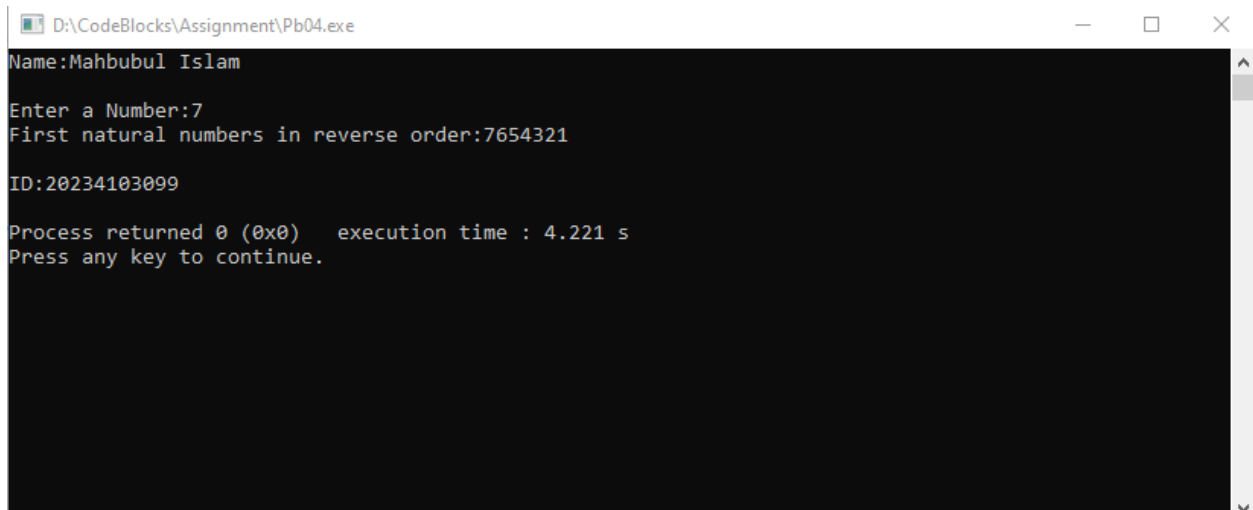
#### 4. Problem: Print the first N natural numbers in reverse order.

##### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int l,m;
    printf("Enter a Number:");
    scanf("%d", &m);
    printf("First natural numbers in reverse order:", m);
    for(l = m; l > 0; l--) {
        printf("%d", l);
    }
    printf("\n\n");
    printf("ID:20234103099\n");
    return 0;
}
```

##### Output:



```
D:\CodeBlocks\Assignment\Pb04.exe
Name:Mahbubul Islam

Enter a Number:7
First natural numbers in reverse order:7654321

ID:20234103099

Process returned 0 (0x0)   execution time : 4.221 s
Press any key to continue.
```

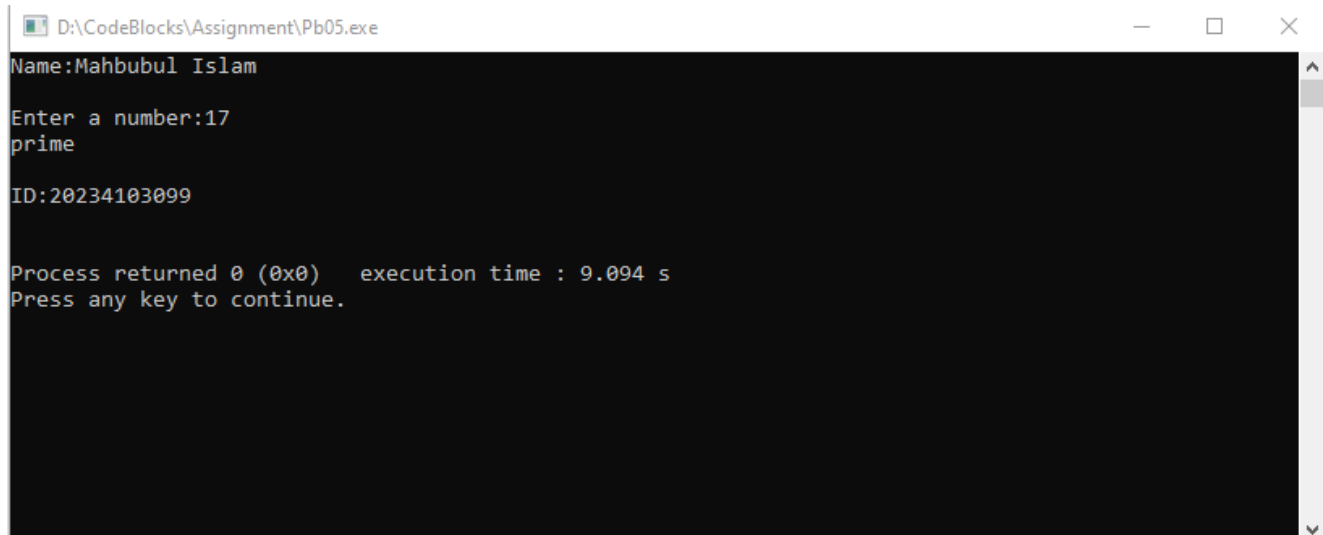
## 5. Problem: Check if a number is prime or not.

### Source Code:

```
#include<stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int n, i, count = 0;
    printf("Enter a number:");
    scanf("%d",&n);
    i=2;
    while( i<=n/2)
    {
        if(n%i==0)
        {
            count=1;
            break;
        }
        i++;
    }
    if (count==0)
        printf("prime",n);
    else
        printf("Non",n);
    printf("\n\n");
    printf("ID:20234103099\n\n");
    return 0;
}
```

## Output:



```
D:\CodeBlocks\Assignment\Pb05.exe
Name:Mahbubul Islam
Enter a number:17
prime
ID:20234103099
Process returned 0 (0x0)   execution time : 9.094 s
Press any key to continue.
```



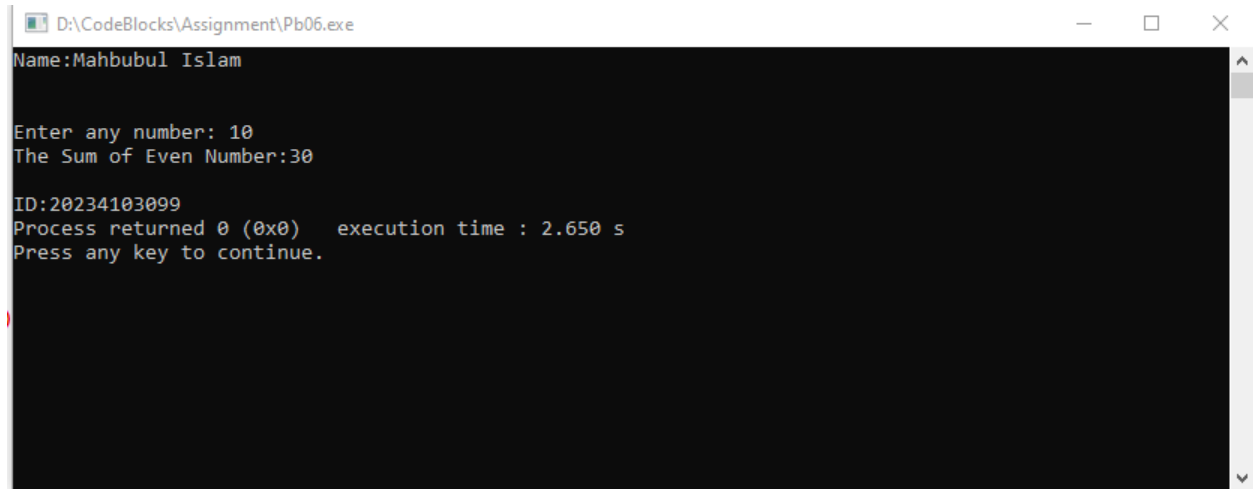
## 6. Problem: Calculate the sum of all even numbers between 1 and N

### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n\n");
    int i, n, sum=0;
    printf("Enter any number: ");
    scanf("%d", &n);
    for(i=2; i<=n; i+=2)
    {
        sum += i;
    }
    printf("The Sum of Even Number:%d\n\n", sum);
    printf("ID:20234103099");
    return 0;
}
```

## Output:



A screenshot of a Windows command prompt window. The title bar at the top shows the file path "D:\CodeBlocks\Assignment\Pb06.exe" and standard window controls (minimize, maximize, close). The command prompt has a black background with white text. The output displayed is as follows:

```
Name:Mahbubul Islam

Enter any number: 10
The Sum of Even Number:30

ID:20234103099
Process returned 0 (0x0)   execution time : 2.650 s
Press any key to continue.
```

The text is left-aligned. There is a small red cursor visible on the line "Press any key to continue.".

## 7. Problem: Print a right-angled triangle of asterisks.

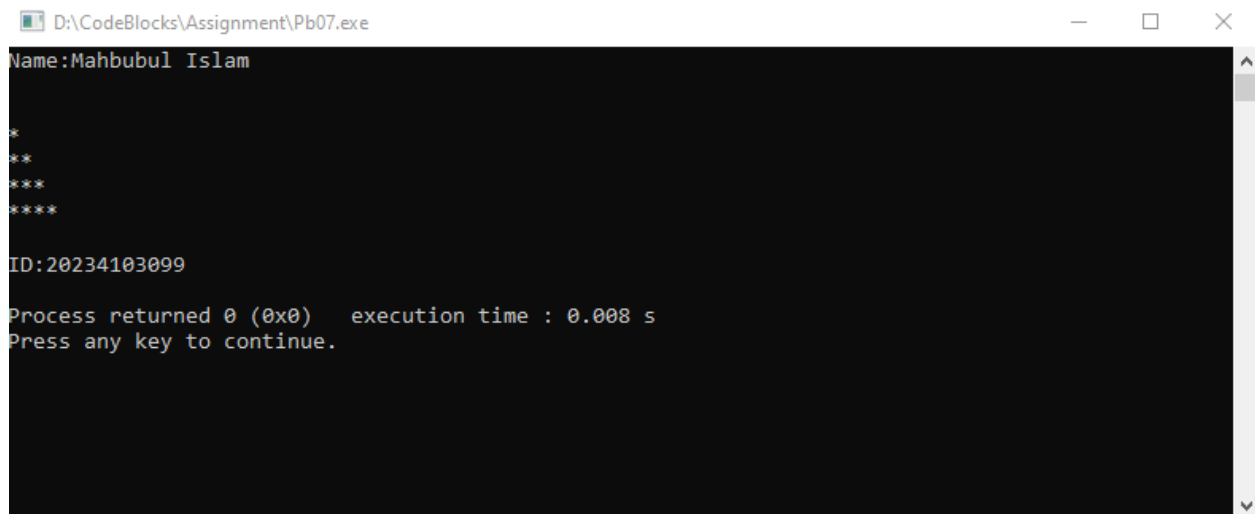
### Source Code:

```
#include<stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");

    int mahbub,islam;
    for(mahbub=1;mahbub<=4;mahbub++)
    {
        for(islam=1;islam<=mahbub;islam++)
        {
            printf("*");
        }
        printf("\n");
    }
    printf("\nID:20234103099 \n");
    return 0;
}
```

## Output:



A screenshot of a Windows command prompt window. The title bar at the top shows the file path "D:\CodeBlocks\Assignment\Pb07.exe" and standard window controls (minimize, maximize, close). The command prompt displays the following text:

```
Name:Mahbubul Islam  
  
*  
**  
***  
****  
  
ID:20234103099  
  
Process returned 0 (0x0)   execution time : 0.008 s  
Press any key to continue.
```

The output consists of a name, a series of asterisks, an ID number, and a status message indicating successful execution and a prompt to press any key to continue.

## 8. Problem: Check if a character is a vowel or consonant.

### Source Code:

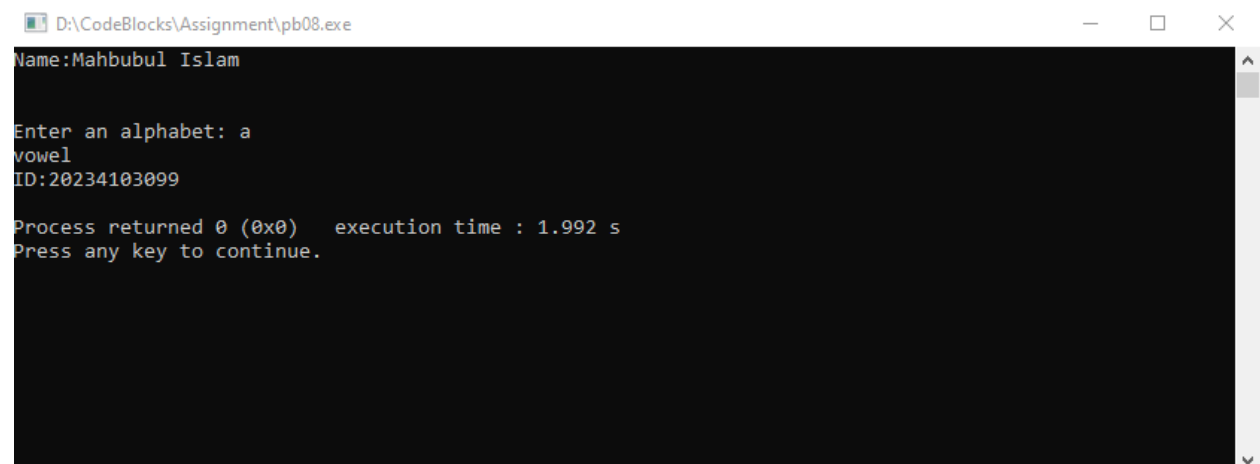
```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    char c;
    int vowel;
    printf("Enter an alphabet: ");
    scanf("%ch",&c);

    vowel = (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u');

    if (vowel)
        printf("vowel",c);
    else
        printf("consonant",c);
    printf("\nID:20234103099 \n");
    return 0;
}
```

## Output:



A screenshot of a Windows command prompt window. The title bar at the top shows the file path "D:\CodeBlocks\Assignment\pb08.exe" and standard window controls (minimize, maximize, close). The command prompt has a black background with white text. The output of the program is as follows:

```
Name:Mahbubul Islam  
  
Enter an alphabet: a  
vowel  
ID:20234103099  
  
Process returned 0 (0x0)   execution time : 1.992 s  
Press any key to continue.
```

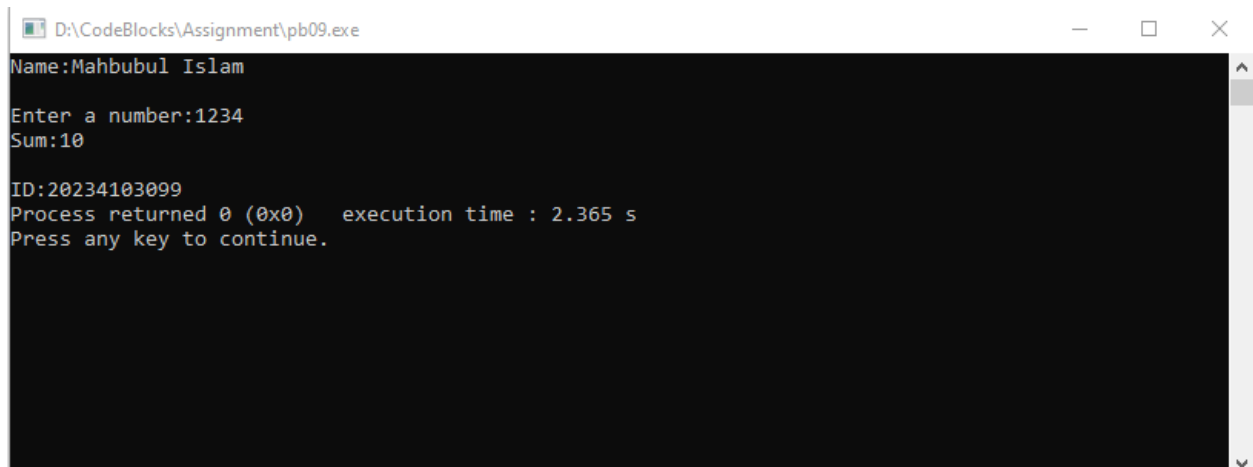
## 9. Problem: Calculate the sum of digits of a number.

### Source Code:

```
#include<stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int m,n,sum=0;
    printf("Enter a number:");
    scanf("%d",&n);
    while(n>0)
    {
        m=n%10;
        sum=sum+m;
        n=n/10;
    }
    printf("Sum:%d\n",sum);
    printf("\nID:20234103099");
    return 0;
}
```

### Output:



```
D:\CodeBlocks\Assignment\pb09.exe
Name:Mahbubul Islam

Enter a number:1234
Sum:10

ID:20234103099
Process returned 0 (0x0)   execution time : 2.365 s
Press any key to continue.
```

## 10. Problem: Print the Fibonacci series up to N terms.

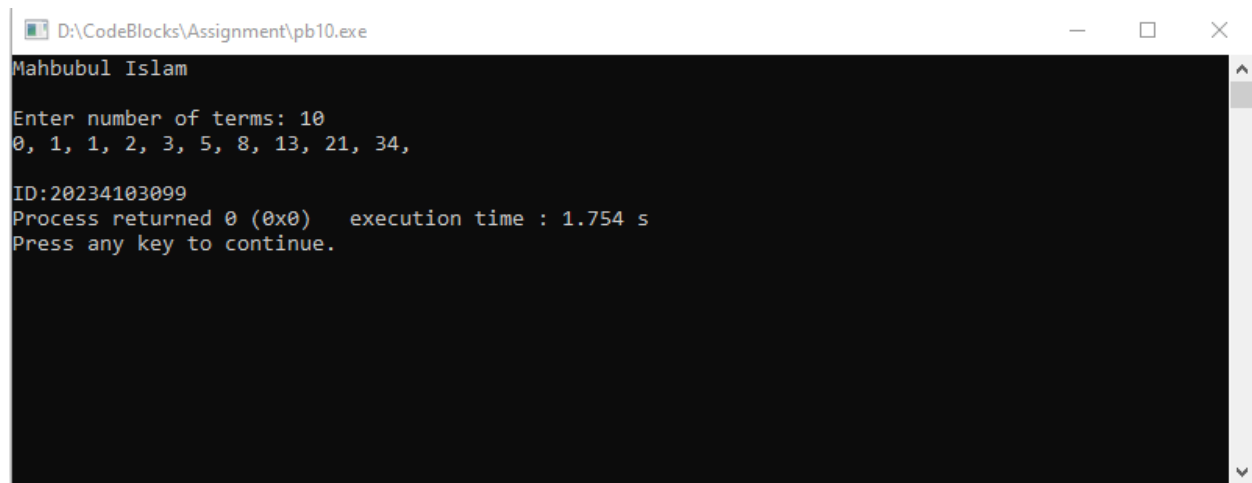
### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Mahbubul Islam\n\n");
    int a, b, c, i, terms;
    printf("Enter number of terms: ");
    scanf("%d", &terms);
    a = 0;
    b = 1;
    c = 0;
    for(i=1; i<=terms; i++)
    {
        printf("%d, ", c);
        a = b;
        b = c;
        c = a + b;
    }
    printf("\n\nID:20234103099");
    return 0;
}
```



## Output:



A screenshot of a Windows command prompt window. The title bar at the top shows the file path "D:\CodeBlocks\Assignment\pb10.exe" and standard window controls (minimize, maximize, close). The command prompt itself has a black background with white text. The text displayed is as follows:

```
Mahbubul Islam  
  
Enter number of terms: 10  
0, 1, 1, 2, 3, 5, 8, 13, 21, 34,  
  
ID:20234103099  
Process returned 0 (0x0)   execution time : 1.754 s  
Press any key to continue.
```

## 11. Problem: Calculate the power of a number ( $a^b$ ).

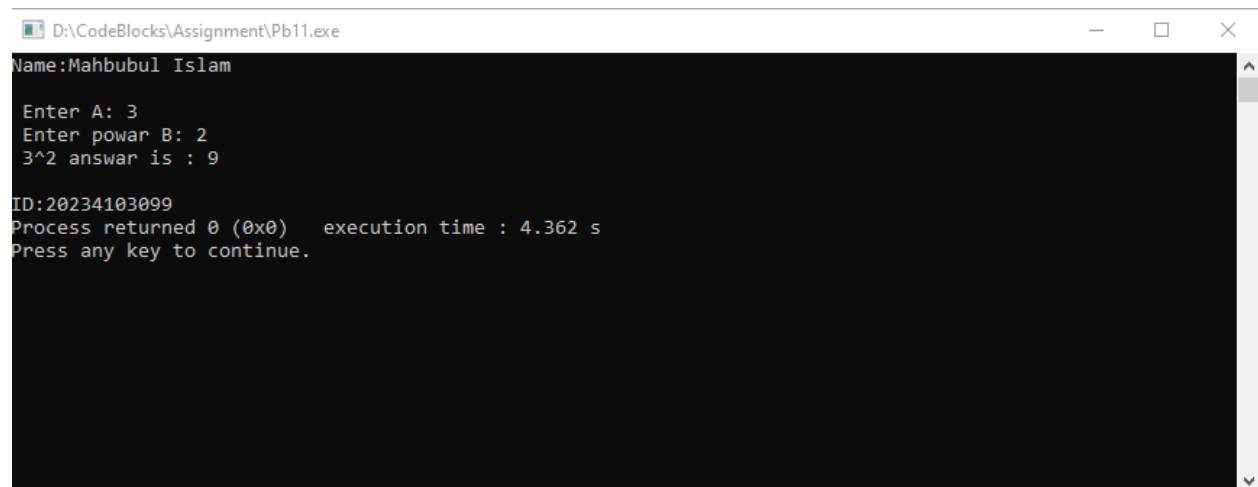
### Source Code:

```
#include<stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int a,b,i,multi=1;
    printf(" Enter A: ");
    scanf("%d", &a);
    printf(" Enter powar B: ");
    scanf("%d", &b);
    for(i=1;i<=b;i++){
        multi=multi*a;
    }
    printf(" %d^%d answar is : %d", a,b,multi);
    printf("\n\nID:20234103099");

    return 0;
}
```

### Output:



```
D:\CodeBlocks\Assignment\Pb11.exe
Name:Mahbubul Islam

Enter A: 3
Enter powar B: 2
3^2 answar is : 9

ID:20234103099
Process returned 0 (0x0)   execution time : 4.362 s
Press any key to continue.
```

### 13. Problem: Reverse a given number.

#### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul islam\n\n");
    int n,reverse = 0,remainder;
    printf("Enter a Number: ");
    scanf("%d", &n);
    while (n != 0) {
        remainder = n % 10;
        reverse = reverse * 10 + remainder;
        n /= 10;
    }
    printf("Reversed number = %d", reverse);
    printf("\n\nId:20234103099");
    return 0;
}
```

#### Output:

```
D:\CodeBlocks\Assignment\pb13.exe
Name:Mahbubul islam

Enter a Number: 2468
Reversed number = 8642

Id:20234103099
Process returned 0 (0x0)   execution time : 5.693 s
Press any key to continue.
```

#### **14. Problem: Check if a year is a leap year or not.**

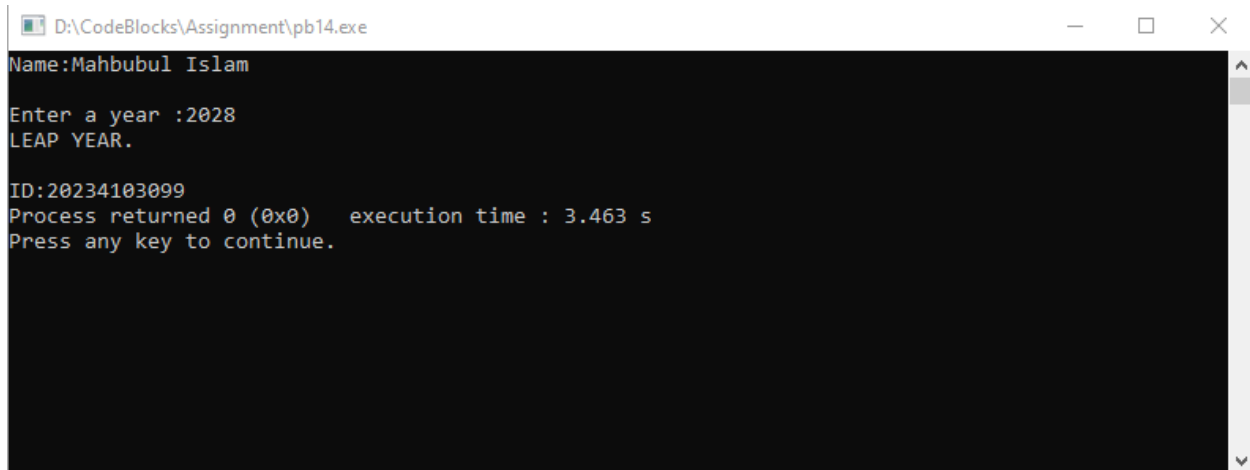
##### **Source Code:**

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int yr;
    printf ("Enter a year :");
    scanf ("%d", &yr);
    if (yr%4 == 0 && yr%100 == 0 && yr%400 == 0)
        printf("LEAP YEAR");
    else if (yr%4==0 && yr%100!=0)
        printf("LEAP YEAR.");
    else
        printf ("NOT LEAP YEAR.");
    printf("\n\nID:20234103099");

    return 0;
}
```

##### **Output:**



```
D:\CodeBlocks\Assignment\pb14.exe
Name:Mahbubul Islam
Enter a year :2028
LEAP YEAR.
ID:20234103099
Process returned 0 (0x0) execution time : 3.463 s
Press any key to continue.
```

## 15. Problem: Calculate the average of N numbers.

### Source Code:

```
#include <stdio.h>

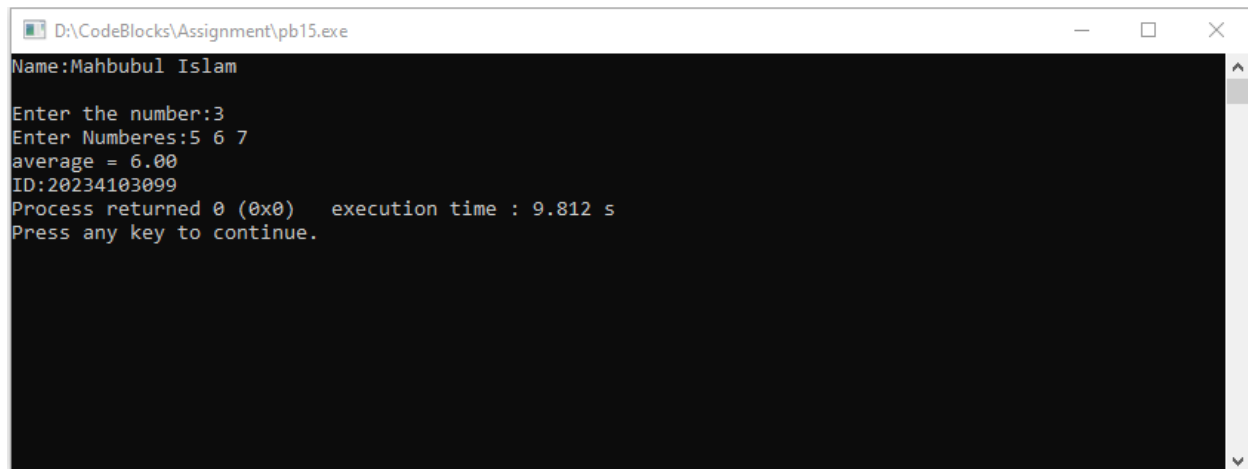
int main()
{
    printf("Name:Mahbubul Islam\n\n");

    int x, i;
    float avg = 0, y;
    printf("Enter the number:");
    scanf("%d",&x);

    printf("Enter Numberes:",x);
    for(i = 0; i < x; i++) {
        scanf("%f", &y);
        avg += y;
    }
    avg /= x;
    printf("average = %.2f", avg);
```

```
printf("\nID:20234103099");  
return 0;  
}
```

## Output:



The screenshot shows a Windows command prompt window titled "D:\CodeBlocks\Assignment\pb15.exe". The window has a black background with white text. The output of the program is as follows:

```
Name:Mahbubul Islam  
Enter the number:3  
Enter Numberes:5 6 7  
average = 6.00  
ID:20234103099  
Process returned 0 (0x0)   execution time : 9.812 s  
Press any key to continue.
```

## 16. Problem: Print the multiplication table of a number up to N terms.

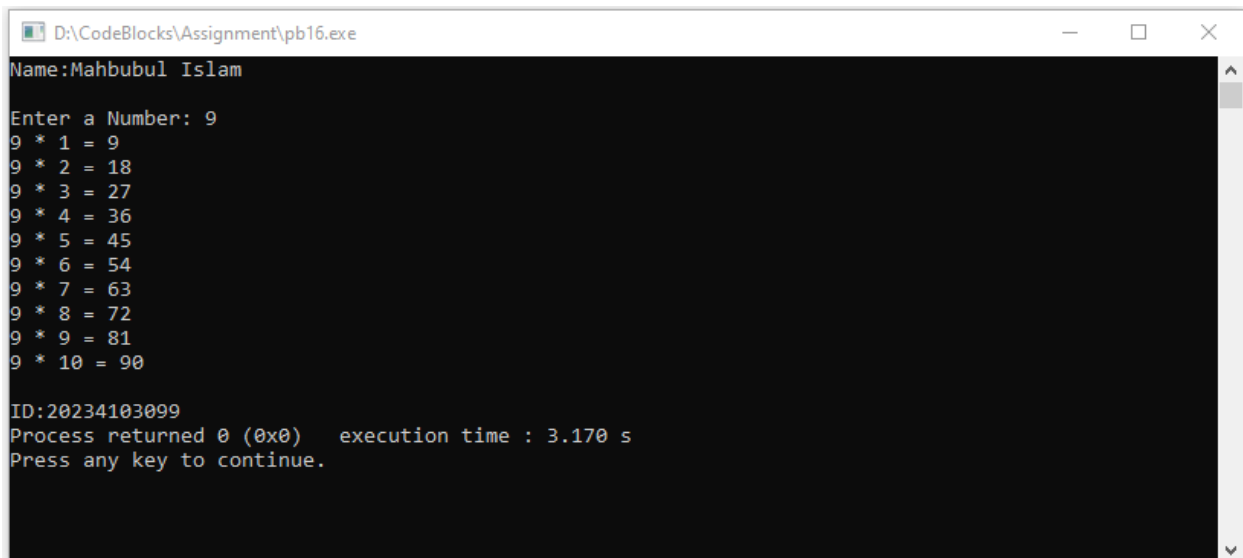
### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int n;
    printf("Enter a Number: ");
    scanf("%d", &n);

    for (int i = 1; i <= 10; ++i) {
        printf("%d * %d = %d \n", n, i, n * i);
    }
    printf("\nID:20234103099");
    return 0;
}
```

### Output:



```
D:\CodeBlocks\Assignment\pb16.exe
Name:Mahbubul Islam

Enter a Number: 9
9 * 1 = 9
9 * 2 = 18
9 * 3 = 27
9 * 4 = 36
9 * 5 = 45
9 * 6 = 54
9 * 7 = 63
9 * 8 = 72
9 * 9 = 81
9 * 10 = 90

ID:20234103099
Process returned 0 (0x0)   execution time : 3.170 s
Press any key to continue.
```

**17. Problem: Write a C program to find the average of all odd numbers from 1 to n.**

**Source Code:**

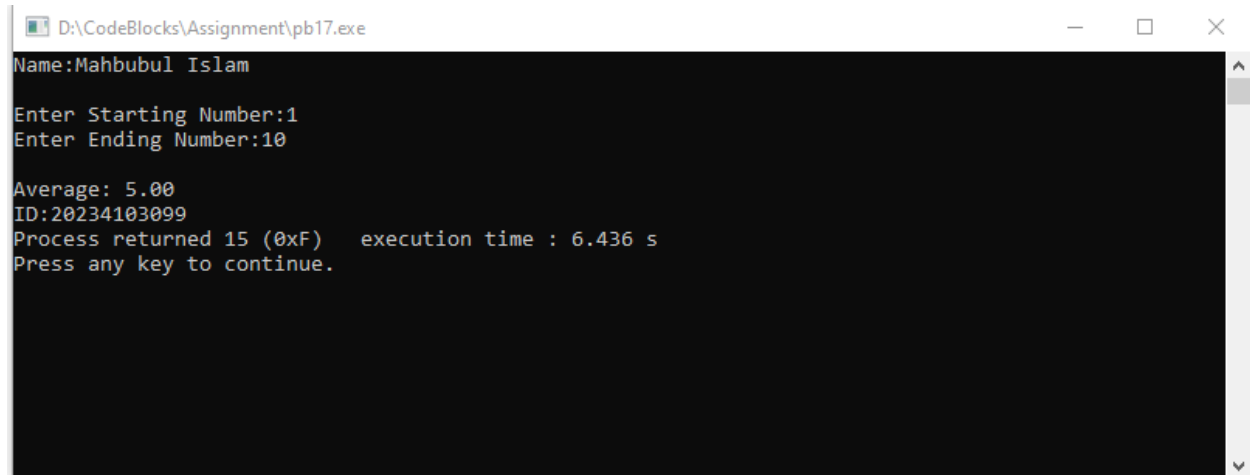
```
#include<stdio.h>

void main()
{
    printf("Name:Mahbubul Islam\n\n");
    int num1, num2, i, sum = 0,count = 0;
    float avg;
    printf("Enter Starting Number:");
    scanf("%d",&num1);
    printf("Enter Ending Number:");
    scanf("%d",&num2);
    for(i=num1;i<=num2;i++)
    {   if(i%2==0)
        {
            continue ;
        }
        else
        {
            sum = sum + i;
            count++;
        }
    }
    avg = (float)sum/count;
    printf("\nAverage: %.2f", avg);
    printf("\nID:20234103099");
    return 0;
```



}

## Output:



A screenshot of a Windows command prompt window titled "D:\CodeBlocks\Assignment\pb17.exe". The window has standard Windows window controls (minimize, maximize, close) in the top right corner. The output text is as follows:

```
Name:Mahbubul Islam
Enter Starting Number:1
Enter Ending Number:10

Average: 5.00
ID:20234103099
Process returned 15 (0xF)   execution time : 6.436 s
Press any key to continue.
```

## 18. Problem: Find the GCD (Greatest Common Divisor) of two numbers.

### Source Code:

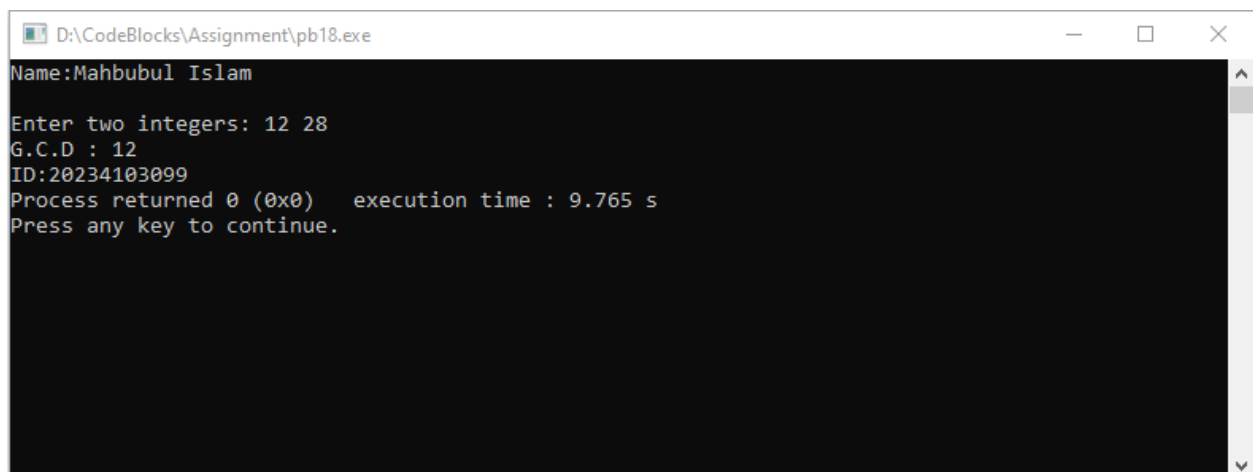
```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int n1, n2, i, gcd;
    printf("Enter two integers: ");
    scanf("%d %d", &n1, &n2);

    for(i=1; i <= n1 && i <= n2; ++i)
    {
        if(n1%i==0 && n2%i==0)
            gcd = i;
    }
    printf("G.C.D : %d", n1, n2, gcd);
    printf("\nID:20234103099");

    return 0;
}
```

### Output:



```
D:\CodeBlocks\Assignment\pb18.exe
Name:Mahbubul Islam
Enter two integers: 12 28
G.C.D : 12
ID:20234103099
Process returned 0 (0x0) execution time : 9.765 s
Press any key to continue.
```

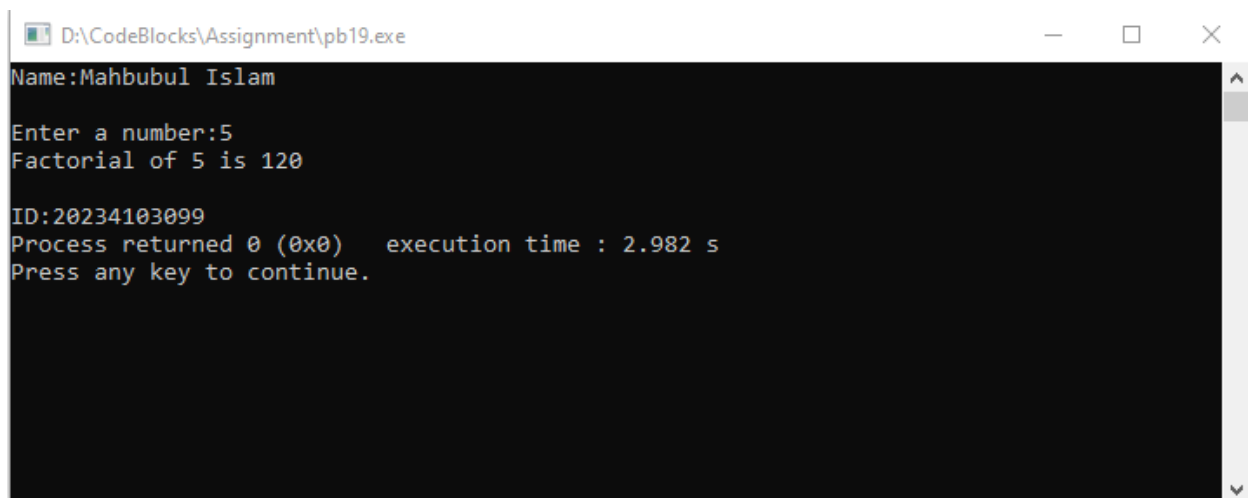
## 19. Problem: Calculate the factorial of a number using a loop.

### Source Code:

```
#include<stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int num, count, fact = 1;
    printf("Enter a number:");
    scanf("%d",&num);
    for(count = 1; count <= num; count++)
    {
        fact = fact * count;
    }
    printf("Factorial of %d is %d\n", num, fact);
    printf("\nID:20234103099");
    return 0;
}
```

### Output:



```
D:\CodeBlocks\Assignment\pb19.exe
Name:Mahbubul Islam

Enter a number:5
Factorial of 5 is 120

ID:20234103099
Process returned 0 (0x0)   execution time : 2.982 s
Press any key to continue.
```

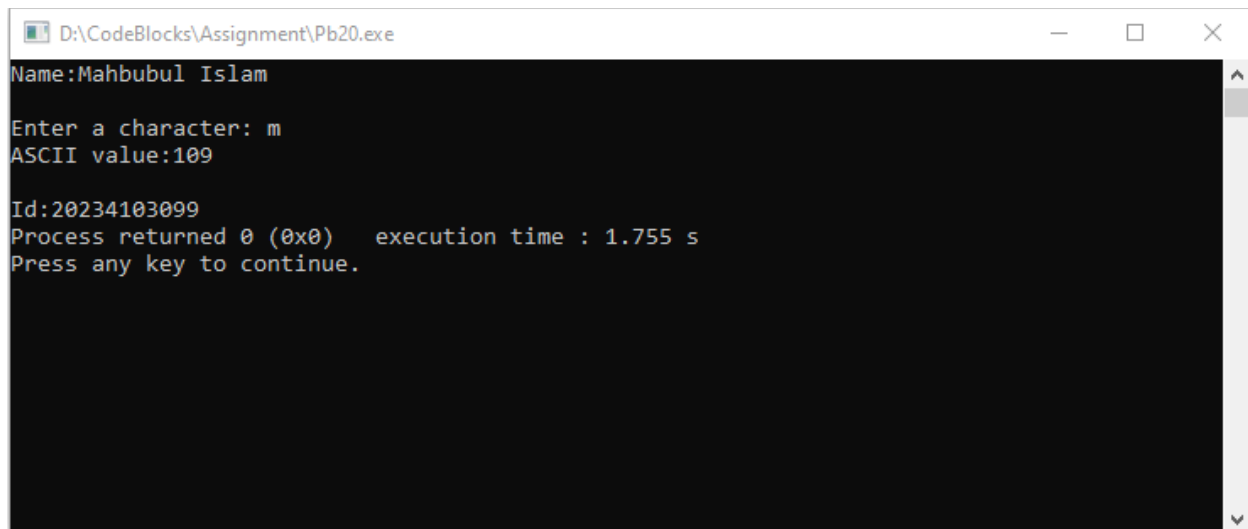
## 20. Problem: Print the ASCII value of all lowercase alphabets.

### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    char c;
    printf("Enter a character: ");
    scanf("%c", &c);
    printf("ASCII value:%d", c,c);
    printf("\n\nId:20234103099");
    return 0;
}
```

### Output:

A screenshot of a Windows command prompt window titled "D:\CodeBlocks\Assignment\Pb20.exe". The window has a black background with white text. The output of the program is displayed as follows: "Name:Mahbubul Islam" followed by two blank lines, "Enter a character: m" followed by a blank line, "ASCII value:109" followed by a blank line, and "Id:20234103099". At the bottom, it shows "Process returned 0 (0x0) execution time : 1.755 s" and "Press any key to continue." The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
D:\CodeBlocks\Assignment\Pb20.exe
Name:Mahbubul Islam

Enter a character: m
ASCII value:109

Id:20234103099
Process returned 0 (0x0) execution time : 1.755 s
Press any key to continue.
```

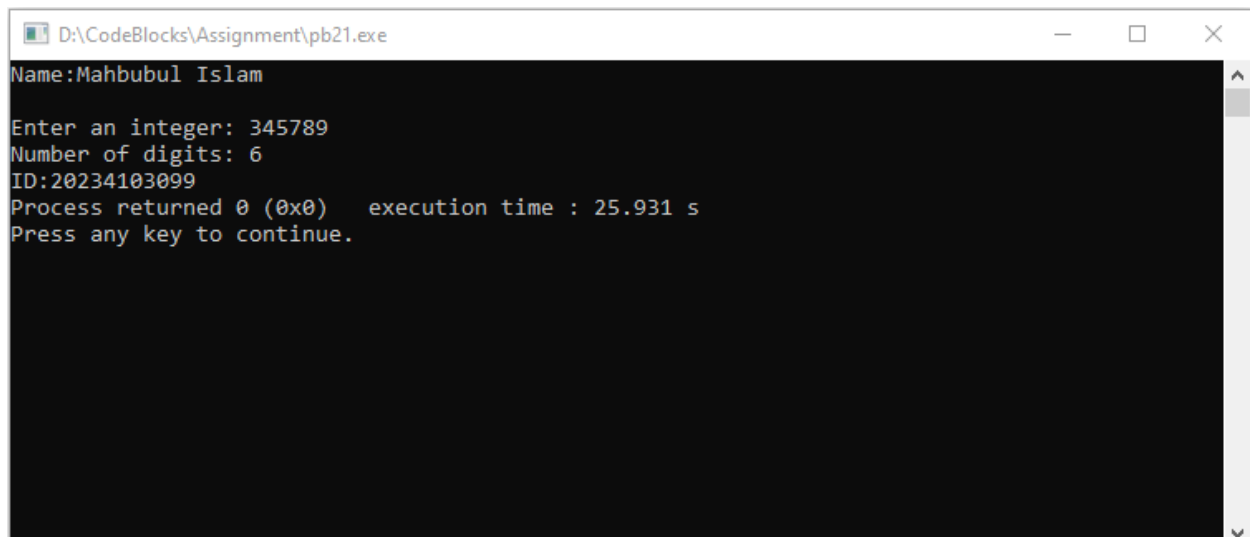
## 21. Problem: Count the number of digits in a given number.

### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    long long n;
    int count = 0;
    printf("Enter an integer: ");
    scanf("%lld", &n);
    do {
        n /= 10;
        ++count;
    } while (n != 0);
    printf("Number of digits: %d", count);
    printf("\nID:20234103099");
    return 0;
}
```

### Output:



```
D:\CodeBlocks\Assignment\pb21.exe
Name:Mahbubul Islam

Enter an integer: 345789
Number of digits: 6
ID:20234103099
Process returned 0 (0x0)   execution time : 25.931 s
Press any key to continue.
```

## 22. Problem: Check if a number is a palindrome.

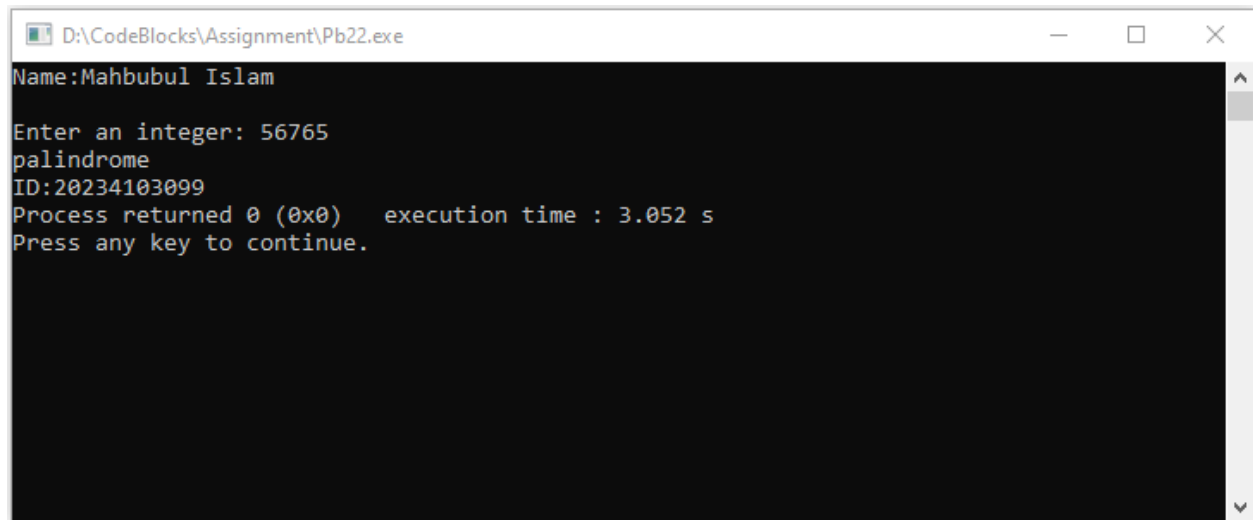
### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");
    int n, reversed = 0, remainder, original;
    printf("Enter an integer: ");
    scanf("%d", &n);
    original = n;
    while (n != 0) {
        remainder = n % 10;
        reversed = reversed * 10 + remainder;
        n /= 10;
    }
    if (original == reversed)
        printf("palindrome", original);
    else
        printf("Not palindrome", original);
    printf("\nID:20234103099");

    return 0;
}
```

## Output:



A screenshot of a Windows command prompt window. The title bar at the top shows the file path "D:\CodeBlocks\Assignment\Pb22.exe" and standard window controls (minimize, maximize, close). The command prompt has a black background with white text. The output of the program is as follows:

```
Name:Mahbubul Islam
Enter an integer: 56765
palindrome
ID:20234103099
Process returned 0 (0x0)   execution time : 3.052 s
Press any key to continue.
```

### 23. Problem: Calculate the sum of digits of a number using a loop.

#### Source Code:

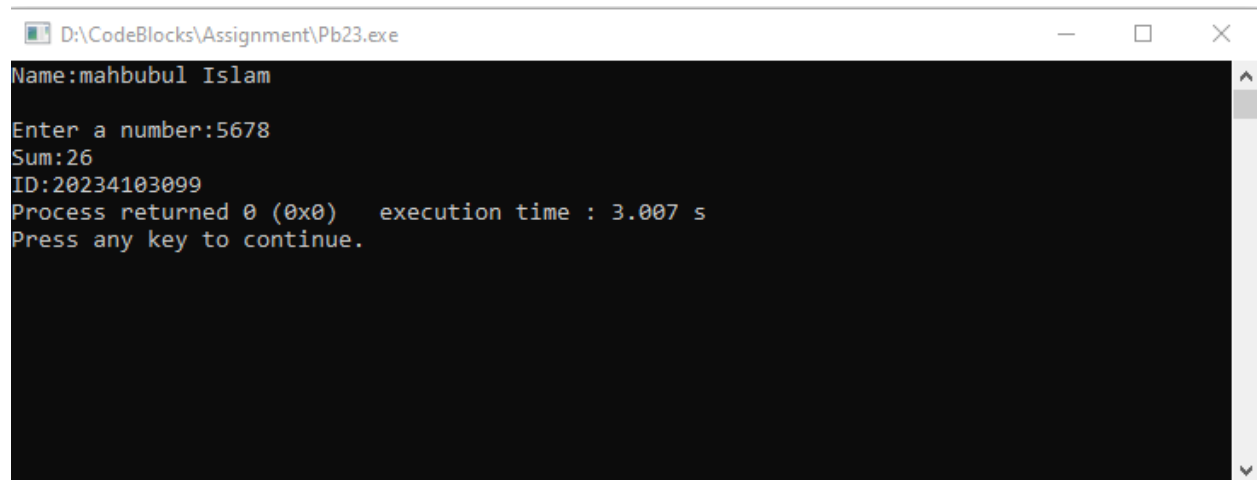
```
#include <stdio.h>

int main()
{
    printf("Name:mahbubul Islam\n\n");
    int n, sum = 0, r;
    printf("Enter a number:");
    for (scanf("%d", &n); n != 0; n = n/10)
    {
        r = n % 10;
        sum = sum + r;
    }

    printf("Sum:%d",sum);
    printf("\nID:20234103099");

    return 0;
}
```

#### Output:



```
D:\CodeBlocks\Assignment\Pb23.exe
Name:mahbubul Islam

Enter a number:5678
Sum:26
ID:20234103099
Process returned 0 (0x0)   execution time : 3.007 s
Press any key to continue.
```



## 24. Problem: Generate a pattern using nested loops.

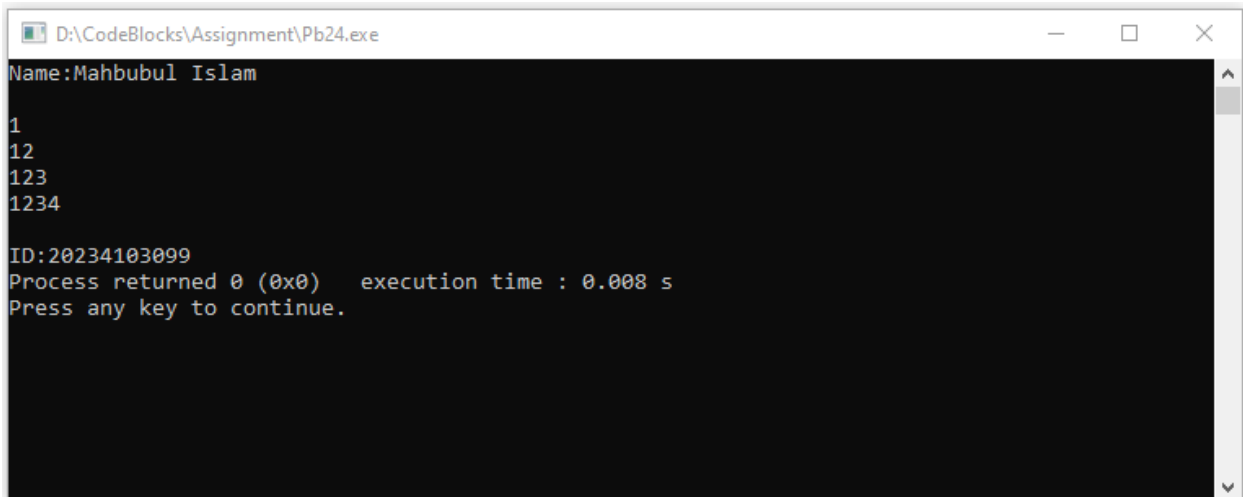
### Source Code:

```
#include<stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");

    int i,j;
    for (i=1;i<=4;i++)
    {
        for(j=1;j<=i;j++)
        {
            printf("%d",j);
        }
        printf("\n");
    }
    printf("\nID:20234103099");
    return 0;
}
```

### Output:

A screenshot of a Windows command prompt window titled "D:\CodeBlocks\Assignment\Pb24.exe". The window has a black background with white text. The output of the program is displayed as follows: "Name:Mahbubul Islam" followed by two blank lines, then a pattern of numbers: "1", "12", "123", and "1234" on separate lines. Below the pattern, the ID "ID:20234103099" is printed. At the bottom, the message "Process returned 0 (0x0) execution time : 0.008 s" and "Press any key to continue." are shown. The window includes standard Windows window controls (minimize, maximize, close) in the top right corner.

## 25. Problem: Find the sum of the series $1^2 + 2^2 + 3^2 + \dots + N^2$ .

### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:Mahbubul Islam\n\n");

    int Number, i, Sum = 0;

    printf("Enter any Number:");

    scanf("%d",&Number);

    Sum = (Number * (Number + 1) * (2 * Number + 1)) / 6;

    for(i =1; i<=Number;i++) {

        if (i != Number)

            printf("%d^2 + ",i);

        else

            printf("%d^2 = %d ",i, Sum);

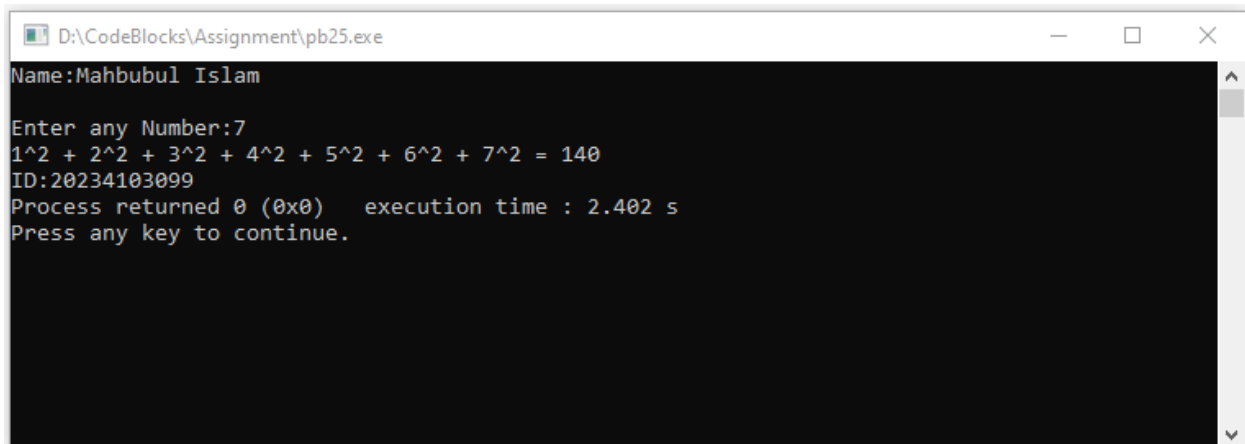
    }

    printf("\nID:20234103099");

    return 0;

}
```

### Output:



```
D:\CodeBlocks\Assignment\pb25.exe
Name:Mahbubul Islam

Enter any Number:7
1^2 + 2^2 + 3^2 + 4^2 + 5^2 + 6^2 + 7^2 = 140
ID:20234103099
Process returned 0 (0x0)   execution time : 2.402 s
Press any key to continue.
```

## 26. Problem: Check if a number is an Armstrong number or not.

### Source Code:

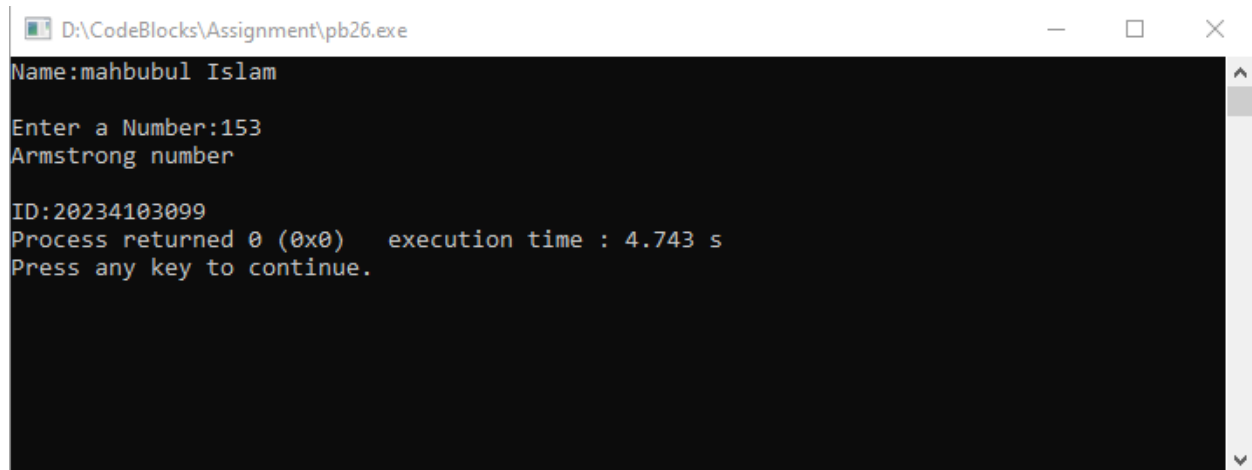
```
#include <stdio.h>

int main()
{
    printf("Name:mahbubul Islam\n\n");

    int num, originalNum, remainder, result = 0;
    printf("Enter a Number:");
    scanf("%d", &num);
    originalNum = num;
    while (originalNum != 0)
    {
        remainder = originalNum % 10;
        result += remainder * remainder * remainder;
        originalNum /= 10;
    }
    if (result == num)
        printf("Armstrong number\n",num);
    else
        printf("Not Armstrong number.", num);

    printf("\nID:20234103099");
    return 0;
}
```

## Output:



A screenshot of a Windows command prompt window. The title bar at the top shows the file path "D:\CodeBlocks\Assignment\pb26.exe" and standard window controls (minimize, maximize, close). The command prompt has a black background with white text. The text displayed is as follows:

```
Name:mahbubul Islam  
Enter a Number:153  
Armstrong number  
ID:20234103099  
Process returned 0 (0x0)   execution time : 4.743 s  
Press any key to continue.
```

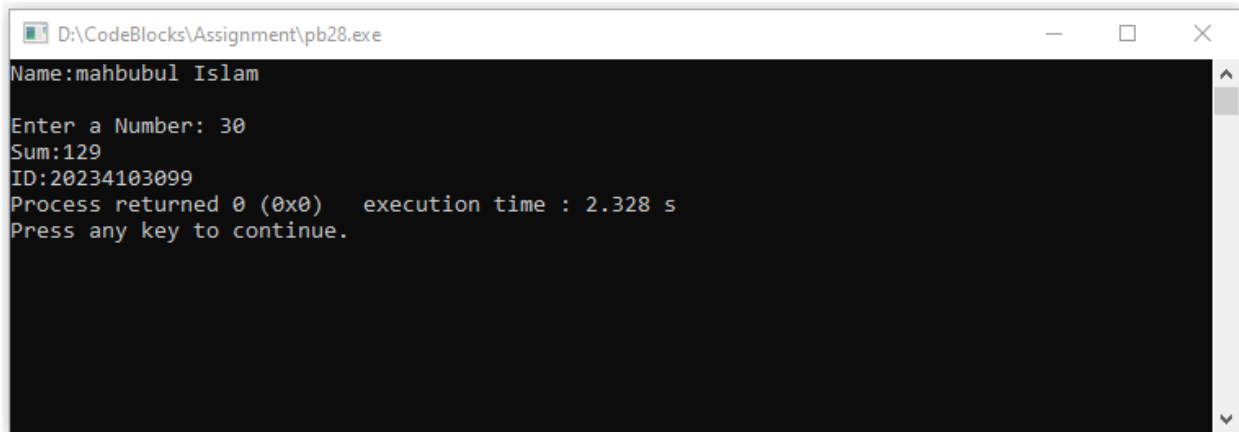
## 28. Problem: Calculate the sum of all prime numbers between 1 and N.

### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:mahbubul Islam\n\n");
    int i,j,end,isPrime,sum=0;
    printf("Enter a Number: ");
    scanf("%d",&end);
    for(i=2; i<=end; i++)
    {
        isPrime = 1;
        for(j=2; j<=i/2 ;j++)
        {
            if(i%j==0)
            {
                isPrime = 0;
                break;
            }
        }
        if(isPrime==1)
        {
            sum += i;
        }
    }
    printf("Sum:%d",sum);
    printf("\nID:20234103099");
    return 0;
}
```

## Output:



```
D:\CodeBlocks\Assignment\pb28.exe
Name:mahbubul Islam
Enter a Number: 30
Sum:129
ID:20234103099
Process returned 0 (0x0)   execution time : 2.328 s
Press any key to continue.
```

The image shows a screenshot of a Windows command prompt window. The title bar at the top reads "D:\CodeBlocks\Assignment\pb28.exe" and includes standard window controls (minimize, maximize, close). The command prompt area has a black background with white text. The output of the program is as follows: "Name:mahbubul Islam", "Enter a Number: 30", "Sum:129", "ID:20234103099", "Process returned 0 (0x0) execution time : 2.328 s", and "Press any key to continue.".

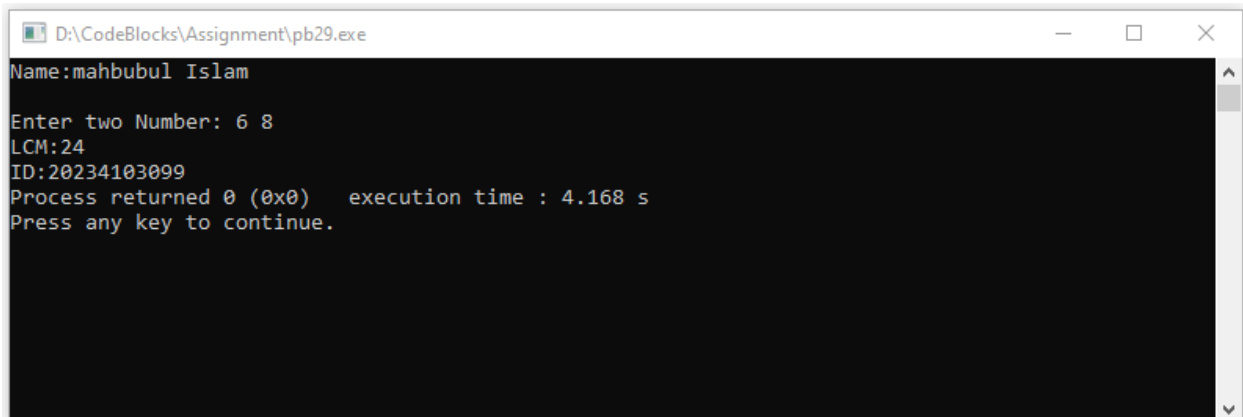
## 29. Problem: Find the LCM (Least Common Multiple) of two numbers.

### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:mahbubul Islam\n\n");
    int n1, n2, max;
    printf("Enter two Number: ");
    scanf("%d %d", &n1, &n2);
    max = (n1 > n2) ? n1 : n2;
    while (1) {
        if ((max % n1 == 0) && (max % n2 == 0)) {
            printf("LCM:%d",max);
            break;
        }
        ++max;
    }
    printf("\nID:20234103099");
    return 0;
}
```

### Output:



```
D:\CodeBlocks\Assignment\pb29.exe
Name:mahbubul Islam

Enter two Number: 6 8
LCM:24
ID:20234103099
Process returned 0 (0x0)   execution time : 4.168 s
Press any key to continue.
```

### 30. Problem: Print the pattern using nested loops.

#### Source Code:

```
#include <stdio.h>

int main()
{
    printf("Name:mahbubul Islam\n\n");
    int i, s, rows, k = 0;
    printf("Enter a Number: ");
    scanf("%d", &rows);
    for (i = 1; i <= rows; ++i, k = 0) {
        for (s = 1; s <= rows - i; ++s) {
            printf(" ");
        }
        while (k != 2 * i - 1) {
            printf("* ");
            ++k;
        }
        printf("\n");
    }
    printf("\nID:20234103099");
    return 0;
}
```



**Output:**

```
D:\CodeBlocks\Assignment\pb30.exe
```

Name:mahbubul Islam

Enter a Number: 6

```
      *  
    * * *  
  * * * * *  
* * * * * * *  
* * * * * * * * *
```

ID:20234103099  
Process returned 0 (0x0) execution time : 2.893 s  
Press any key to continue.