

## **Practical-1**

**Aim:** Meena face an issue to perform a mathematical operation to find a cube of any number. Write a C++ Program which helps Meena to solve her issue.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int n,cube;
cout <<"~> Enter any value: ";
cin >> n;

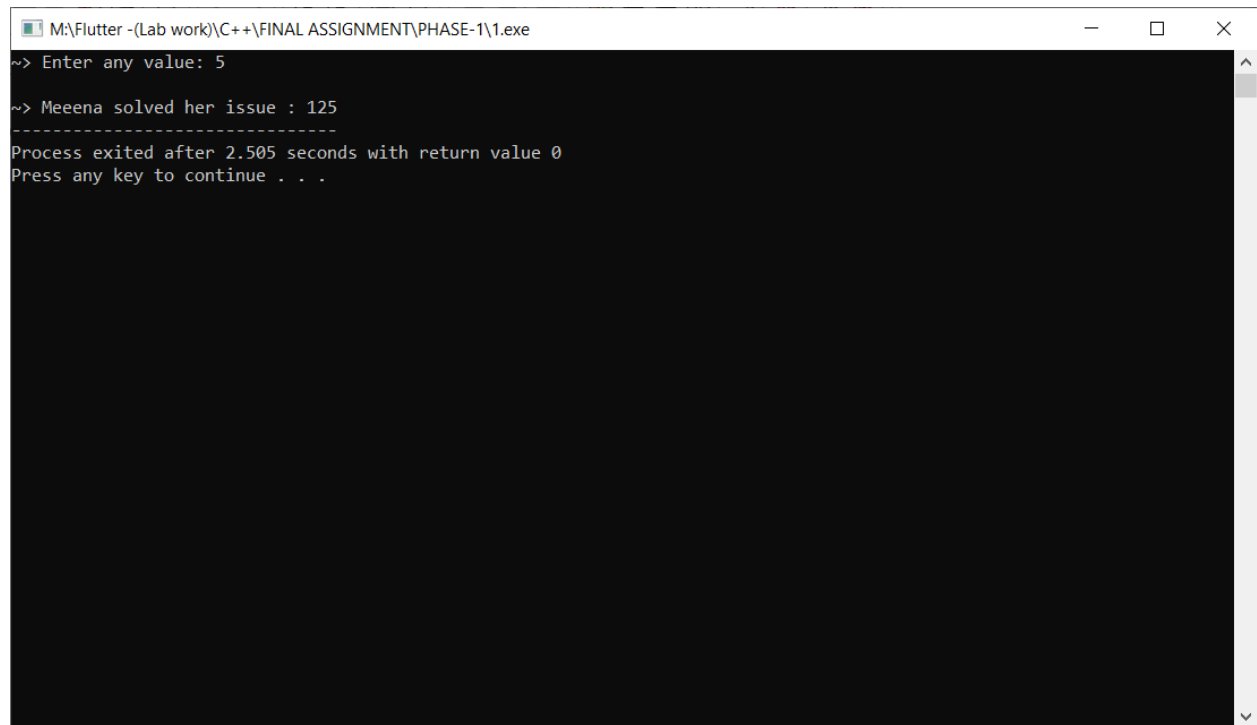
cube = n*n*n;

cout <<endl<<"~> Meeena solved her issue : "<<cube ;

return 0;

}
```

## **Output:**



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\1.exe" and includes standard minimize, maximize, and close buttons. The command prompt area has a black background with white text. The text displayed is as follows:

```
~> Enter any value: 5  
  
~> Meeena solved her issue : 125  
-----  
Process exited after 2.505 seconds with return value 0  
Press any key to continue . . .
```

The window includes a vertical scrollbar on the right side, which is currently at the top position.

## Practical-2

**Aim:** Sameer is too weak to find multiplication of any three numbers. Write a C++ Program which helps Sameer to solve his issue.

**Program:**

```
#include<iostream>
using namespace std;

int main()
{

int a[3],mult=1,i;

cout <<"~ Enter 1st number : ";    cin >> a[0];
cout <<"~ Enter 2nd number : ";    cin >> a[1];
cout <<"~ Enter 3rd number : ";    cin >> a[2];

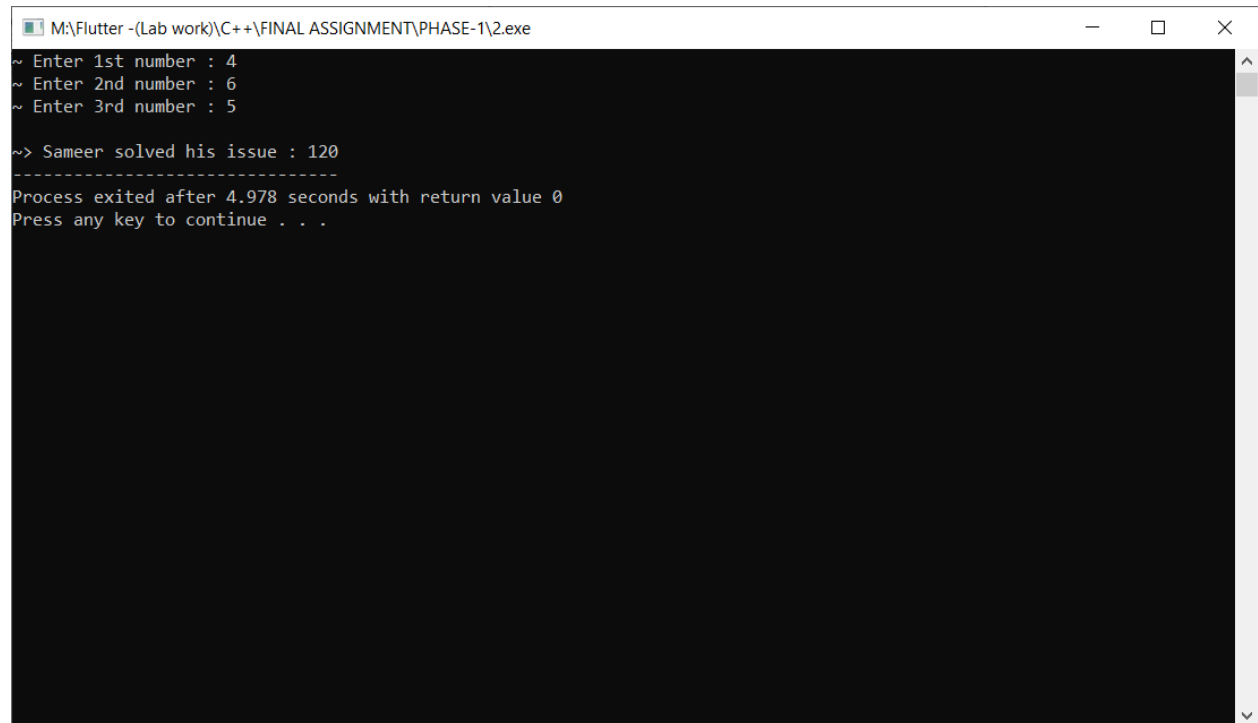
for(i=0;i<3;i++)
{
    mult = mult * a[i];
}

cout <<endl<<"~> Sameer solved his issue : "<<mult;

return 0;

}
```

## **Output:**



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\2.exe" and includes standard minimize, maximize, and close buttons. The command prompt area has a black background with white text. The output shows three prompts for numbers, followed by a calculation result, a separator line, and a message about process exit and a key press to continue.

```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\2.exe
~ Enter 1st number : 4
~ Enter 2nd number : 6
~ Enter 3rd number : 5

~> Sameer solved his issue : 120
-----
Process exited after 4.978 seconds with return value 0
Press any key to continue . . .
```

### **Practical-3**

**Aim:** A student in a fifth class encounters a very easy math problem to find quotient and remainder. Write a C++Program which provides a solution for this particularproblem.

**Program:**

```
#include<iostream>
using namespace std;

int main()
{

int quoti,rem,divisor,dividend ;

cout << "~ Enter any dividend : ";  cin >> dividend ;
cout << "~ Enter any divisor : ";   cin >>divisor ;

//Quotient
quoti= dividend / divisor;

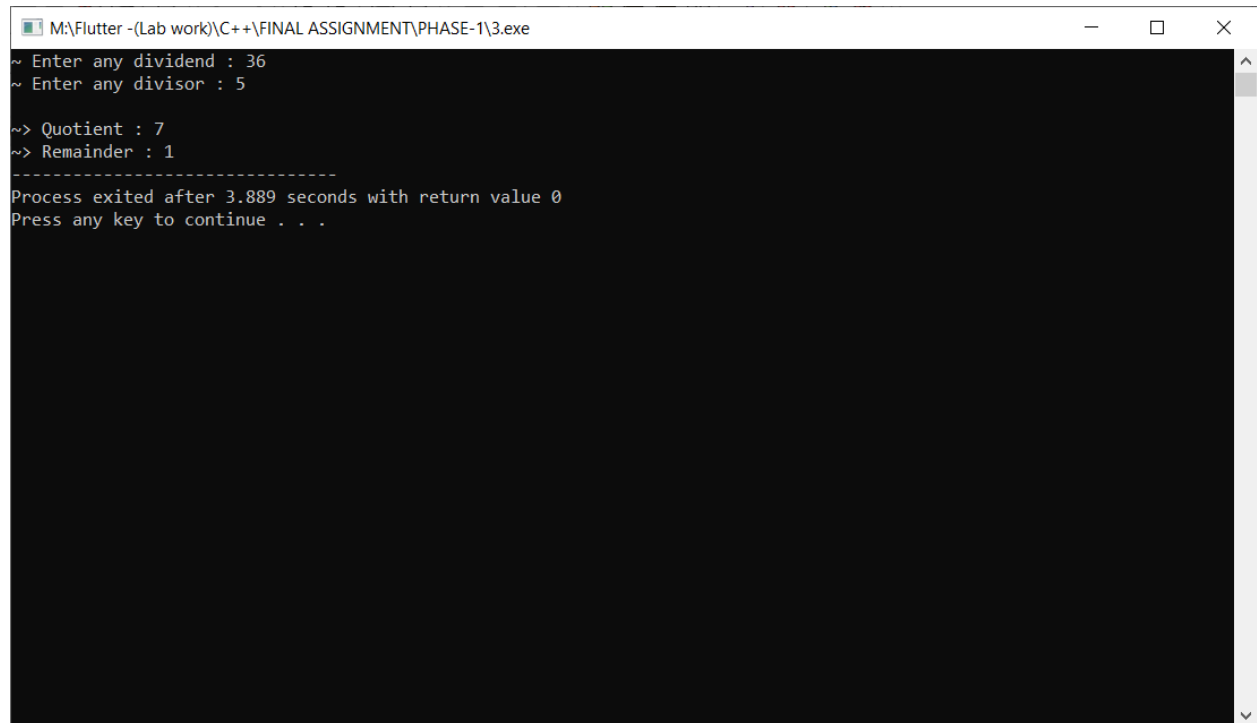
//Remainder
rem = dividend % divisor;

cout <<endl<< "~> Quotient : "<<quoti <<endl;
cout << "~> Remainder : "<<rem ;

return 0;

}
```

## **Output:**



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\3.exe
~ Enter any dividend : 36
~ Enter any divisor : 5

~> Quotient : 7
~> Remainder : 1
-----
Process exited after 3.889 seconds with return value 0
Press any key to continue . . .
```

## **Practical-4**

**Aim:** Two classmates wants to exchange their seating with each other. But the problem is that there are only two chairs in the small classroom which already aquires by them. Write a C++ Program which provides a solution for this particular problem.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int a,b;
cout << "~ Enter value of a : ";    cin >> a;
cout << "~ Enter value of b : ";    cin >> b;
cout << endl << "~> Before Exchange : " << endl << "- a = " << a << endl << "- b = " << b << endl;

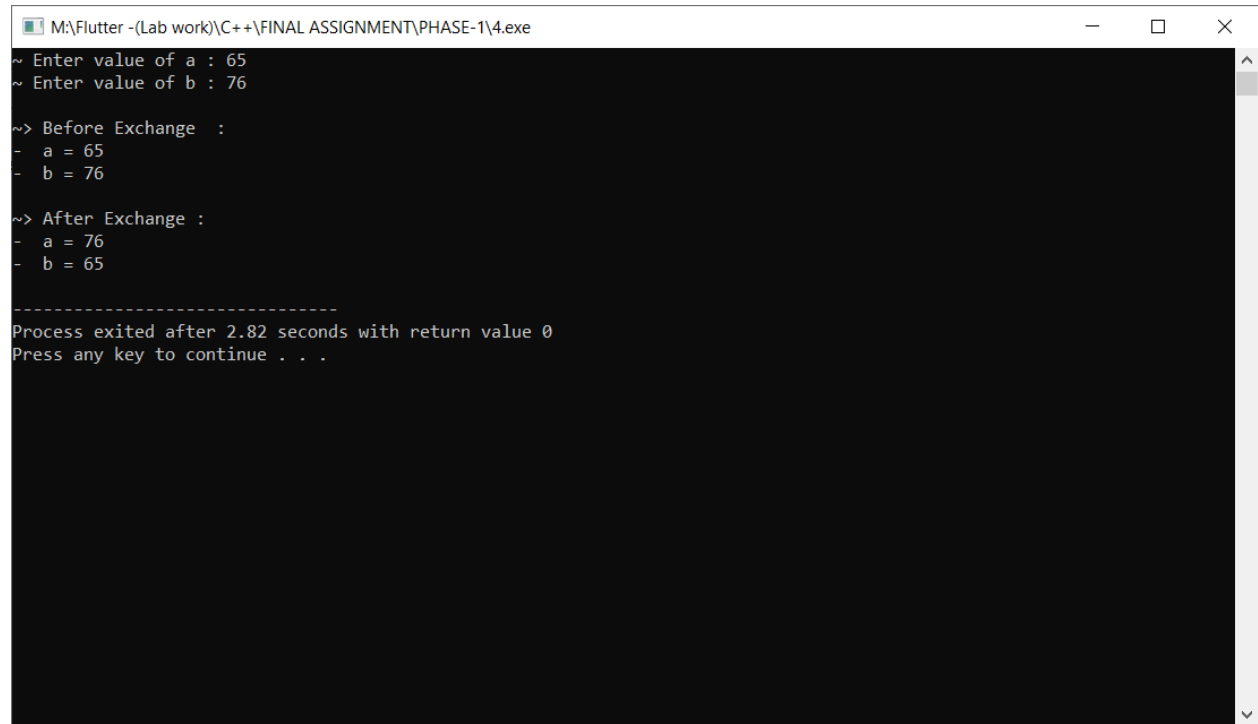
a=a+b;
b=a-b;
a=a-b;

cout << endl << "~> After Exchange : " << endl << "- a = " << a << endl << "- b = " << b << endl;

return 0;

}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\4.exe
~ Enter value of a : 65
~ Enter value of b : 76

~> Before Exchange  :
- a = 65
- b = 76

~> After Exchange  :
- a = 76
- b = 65

-----
Process exited after 2.82 seconds with return value 0
Press any key to continue . . .
```



## **Practical-5**

**Aim:** Two college colleagues had argue with a ASCII value conversion method.  
**Write a C++ Program which provides a solution for their issue.**

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int n,i;
char c;

cout <<"~> Enter any value : ";      cin >> n;

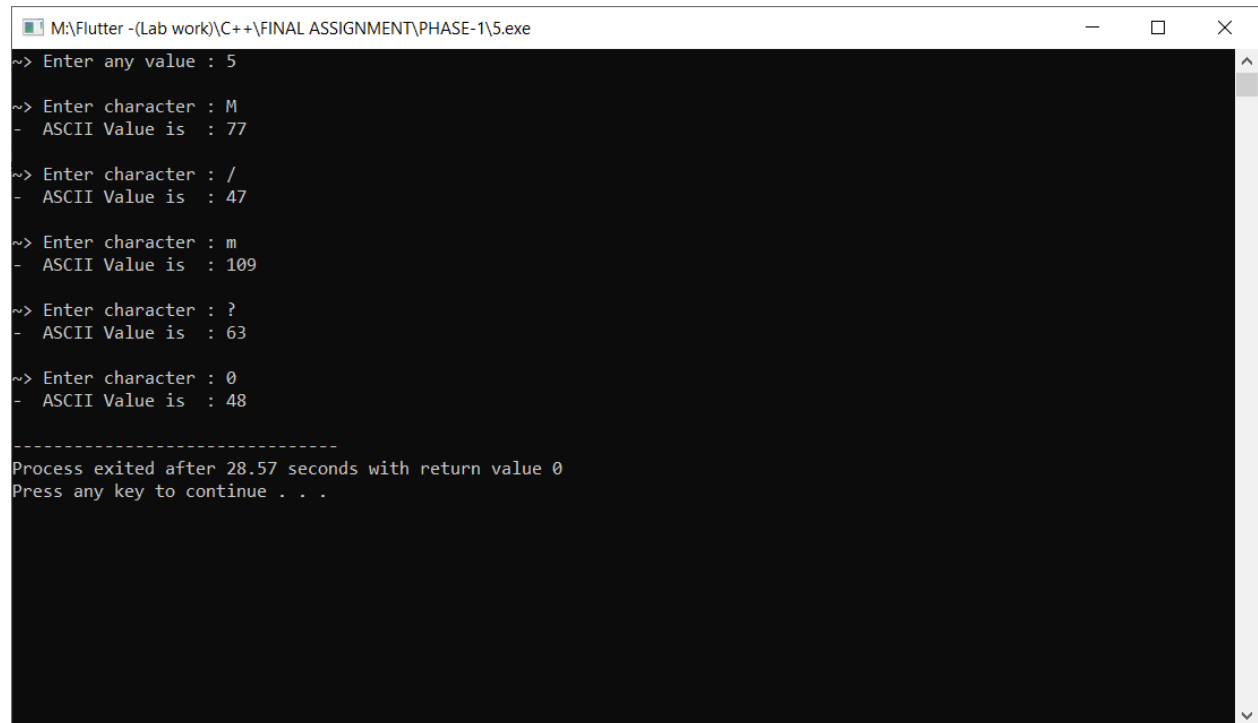
//ASCII value conversion method

for(i=0;i<n;i++)
{
cout <<endl<<"~> Enter character : ";
cin >> c;
cout<< "- ASCII Value is : "<<int(c)<<endl;
}

return 0;

}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\5.exe
~> Enter any value : 5
~> Enter character : M
- ASCII Value is : 77
~> Enter character : /
- ASCII Value is : 47
~> Enter character : m
- ASCII Value is : 109
~> Enter character : ?
- ASCII Value is : 63
~> Enter character : 0
- ASCII Value is : 48

-----
Process exited after 28.57 seconds with return value 0
Press any key to continue . . .
```

## **Practical-6**

**Aim:** An IT company wants to generate random number of 6 digits long and send it to its employees. Write a C++ Program to help this IT company.

### **Program:**

```
#include<iostream>
#include<string.h>
#include<stdlib.h>
#include<time.h>
using namespace std;

int main()
{

double i,n;

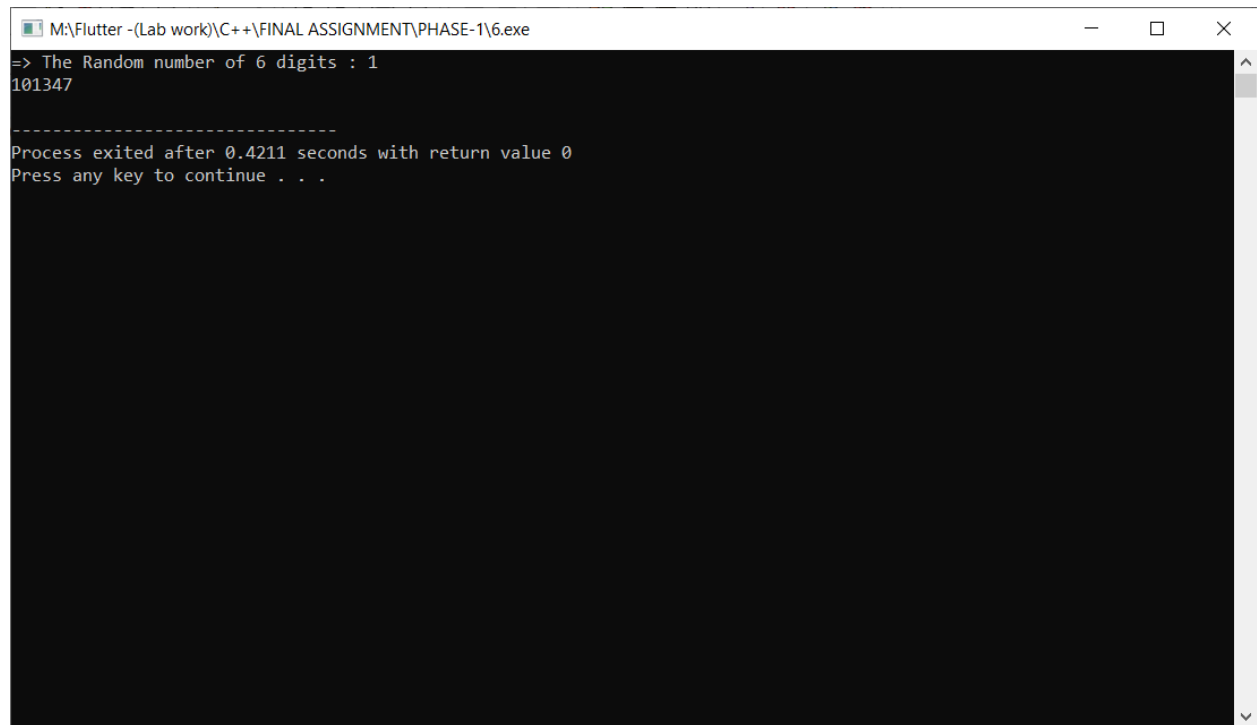
cout <<"=> The Random number of 6 digits : ";
cin >> n;
srand(time(0));

for(i=0;i<n;i++)
{
cout <<rand()%(999999+1-99999)+99999 <<endl;
}

return 0;

}
```

## **Output:**



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\6.exe" and includes standard minimize, maximize, and close buttons. The command prompt area has a black background with white text. The output displayed is as follows:

```
=> The Random number of 6 digits : 1
101347

-----
Process exited after 0.4211 seconds with return value 0
Press any key to continue . . .
```

The text is left-aligned. There is a horizontal line of dashes separating the random number output from the process exit message. The window also features a vertical scrollbar on the right side.

## **Practical-7**

**Aim:** Priyank needs to find an average of three numbers to gain required passing marks in exam. Write a C++ Program to help Priyank to solve his issue.

### **Program:**

```
#include<iostream>
#include<string.h>
using namespace std;

int main()

{

int p,m,c,avg=0;

cout<<endl<<" * Enter Mark of Physics : ";
cin>>p;
cout<<" * Enter Mark of Chemistry : ";
cin>>c;
cout<<" * Enter Mark of Maths : ";
cin>>m;

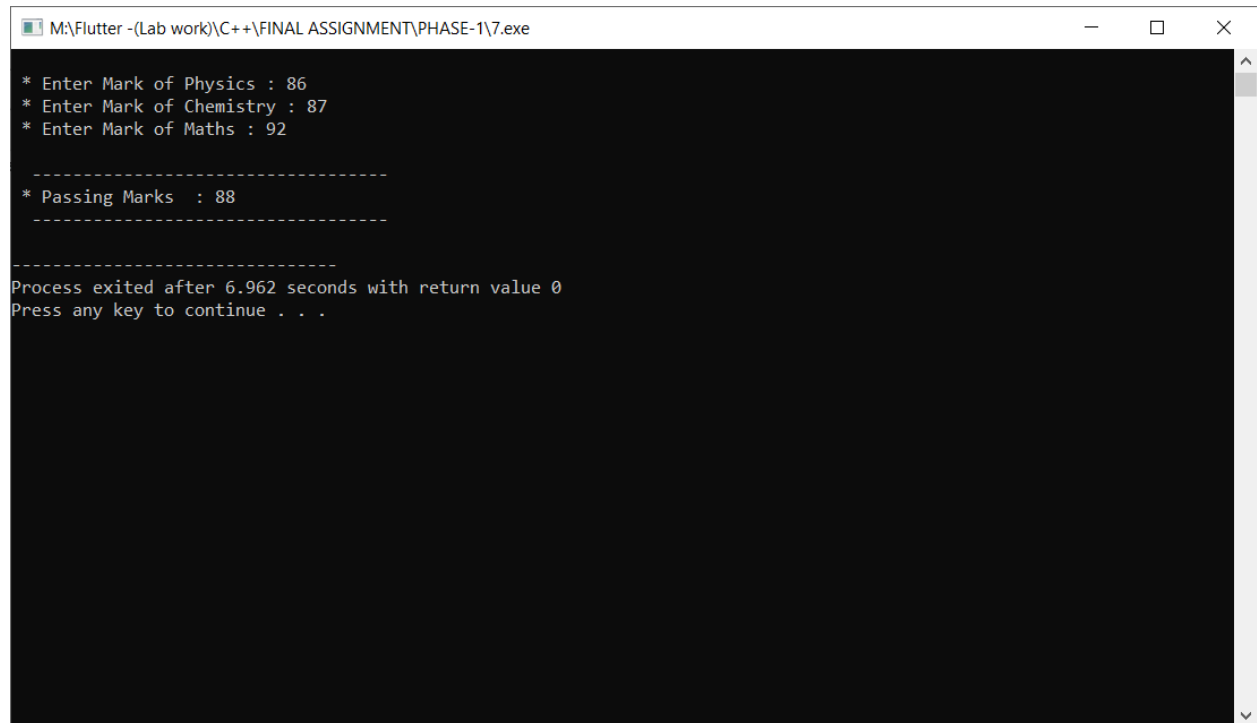
avg=(p+c+m) / 3;

cout<<endl<<" -----" <<endl;
cout<<" * Passing Marks : " <<avg<<endl;
cout<<" -----" <<endl;

return 0;

}
```

## Output:



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\7.exe" and includes standard minimize, maximize, and close buttons. The command prompt area has a black background with white text. The output shows three lines of input prompts: "\* Enter Mark of Physics : 86", "\* Enter Mark of Chemistry : 87", and "\* Enter Mark of Maths : 92". These are followed by a separator line of dashes, then "\* Passing Marks : 88", and another separator line. At the bottom, it says "Process exited after 6.962 seconds with return value 0" and "Press any key to continue . . .". A vertical scrollbar is visible on the right side of the window.

```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\7.exe

* Enter Mark of Physics : 86
* Enter Mark of Chemistry : 87
* Enter Mark of Maths : 92

-----
* Passing Marks : 88
-----

Process exited after 6.962 seconds with return value 0
Press any key to continue . . .
```

## **Practical-8**

**Aim:** A sport coach needs to convert submitted participants' inches into feet and inches for height measurement. Write a C++ Program to provide a solution for this.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{
    float inch ,feet,height;

    cout <<endl<< "-> Enter length : ";    cin >>inch;

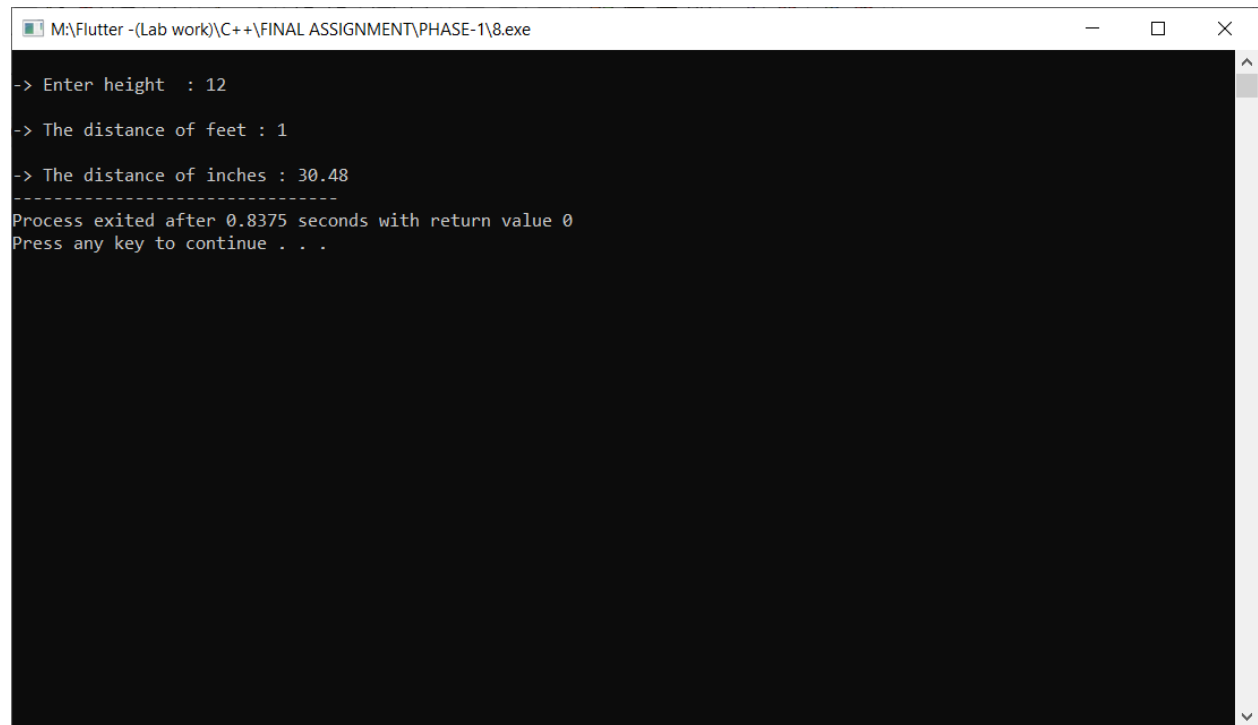
    //inch = height/2.54;
    height = inch *2.54;
    feet = inch/12;

    cout <<endl<< "-> The distance of feet : "<<feet <<endl;
    cout <<endl<< "-> The distance of inch : "<<height;

    return 0;

}
```

## **Output:**



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\8.exe" and includes standard minimize, maximize, and close buttons. The command prompt area has a black background with white text. The output shows a program that prompts for a height, calculates distances in feet and inches, and then exits. The text is as follows:

```
-> Enter height : 12
-> The distance of feet : 1
-> The distance of inches : 30.48
-----
Process exited after 0.8375 seconds with return value 0
Press any key to continue . . .
```



## **Practical-9**

**Aim:** An innocent boy must have to solve that how to raise any number(Base) to power N for proving his common ability among all classmates. Write a C++ Program to provide a solution for this boy.

### **Program:**

```
#include<iostream>
#include<math.h>
using namespace std;

int main()
{

float base , exponent ,result;

cout << "~ Enter base : ";
cin >> base;
cout << "~ Enter Exponent : ";
cin >> exponent;

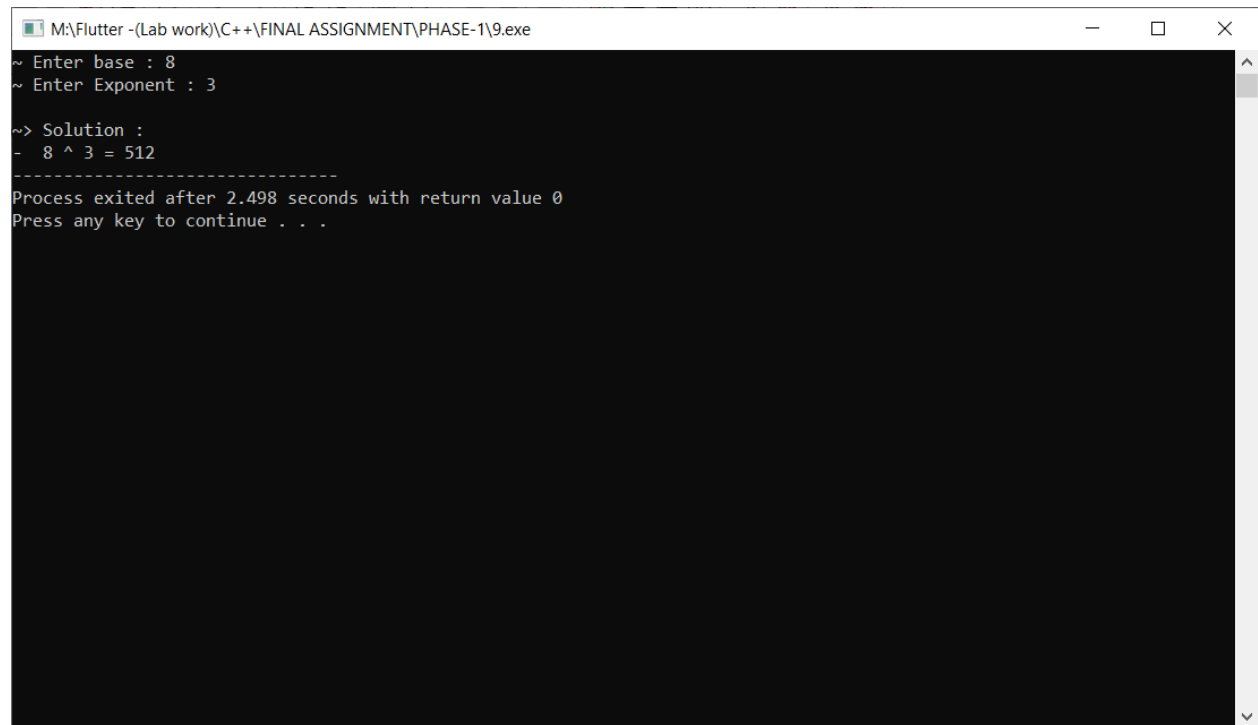
result = pow(base,exponent);           // ex: (2)^3 = 8

cout << endl<< "~> Solution : "<< base << " ^ " << exponent << " = "<< result;

return 0 ;

}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\9.exe
~ Enter base : 8
~ Enter Exponent : 3

~> Solution :
- 8 ^ 3 = 512
-----
Process exited after 2.498 seconds with return value 0
Press any key to continue . . .
```

## **Practical-10**

**Aim:** A brand new smart device which meant to convert total provided Days Into Years, Weeks and Days. But for some technical interruption, that device stops working properly. Write a C++ Program to provide a solution for this.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int days,years,weeks,n;

cout << "~> Enter days : ";
cin >> n;

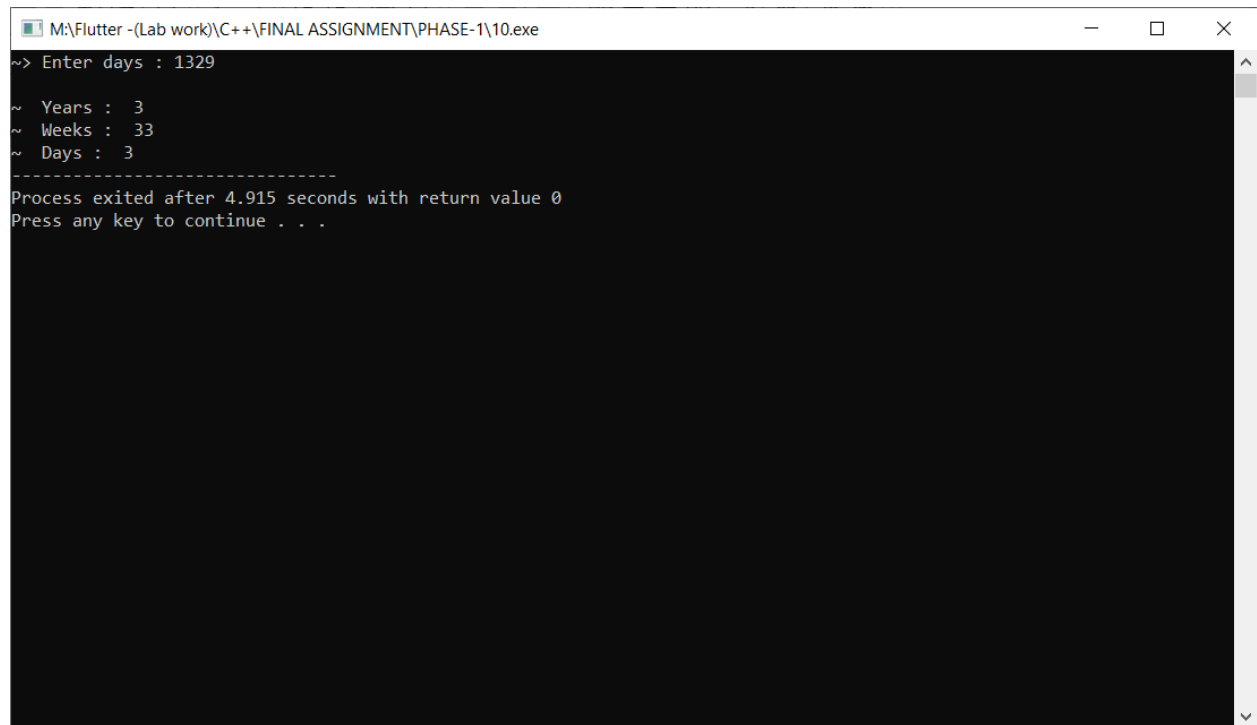
years = n/365;
weeks = (n%365)/7;
days = n - ((years * 365)+ (weeks * 7));

cout <<endl<< "~ Years : "<<years;
cout <<endl<< "~ Weeks : "<<weeks;
cout <<endl<< "~ Days : "<<days;

return 0;

}
```

## **Output:**



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\10.exe
~> Enter days : 1329
~  Years : 3
~  Weeks : 33
~  Days : 3
-----
Process exited after 4.915 seconds with return value 0
Press any key to continue . . .
```

## **Practical-11**

**Aim:** Raman have an idea to impress his Computer Teacher by solving Square Root of a number without using any programming library. Write a C++ Program to help Raman.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

float a,n,i;
cout << "~ Enter any value: ";
cin >> n;

a = n;

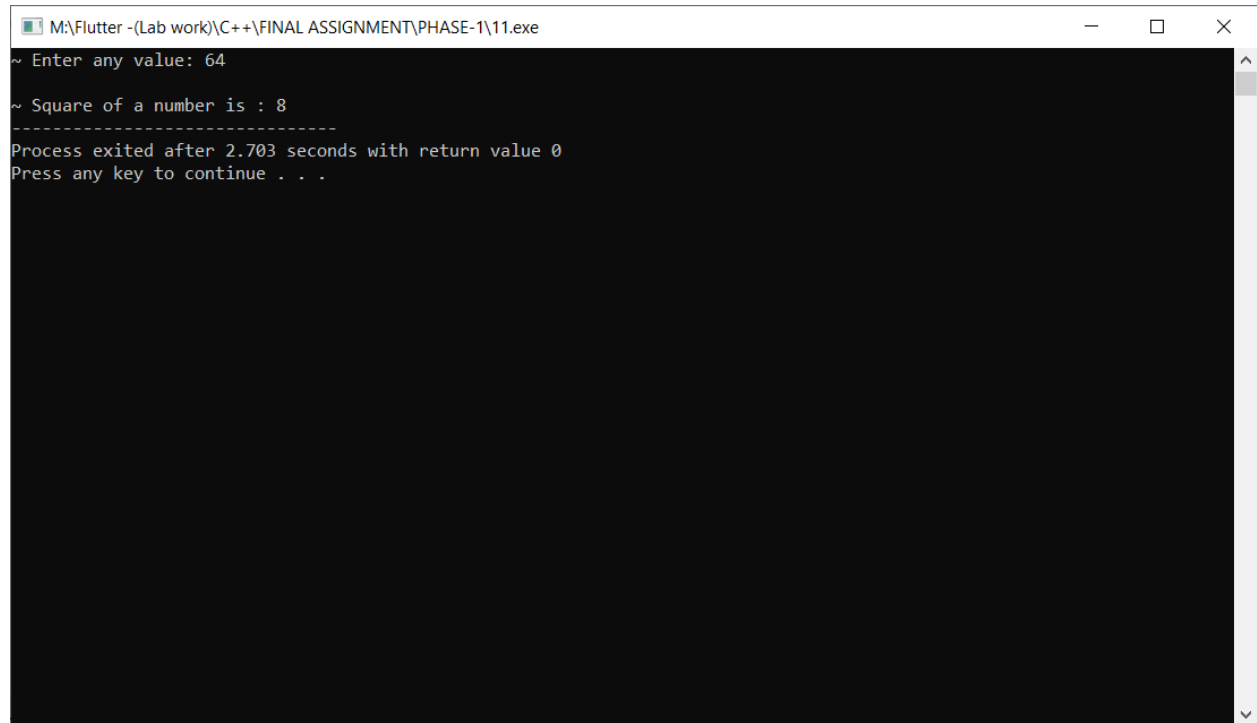
for (i=0;i<n;i++)
{
a = (a+n/a)/2 ;
}

cout << endl << "~ Square of a number is : " << a;

return 0;

}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\11.exe
~ Enter any value: 64
~ Square of a number is : 8
-----
Process exited after 2.703 seconds with return value 0
Press any key to continue . . .
```

## **Practical-12**

**Aim:** A math teacher wants to teach how to find a Simple Interest.  
**Write a C++ Program to provide a solution for this.**

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{
    int si,p,r,t;

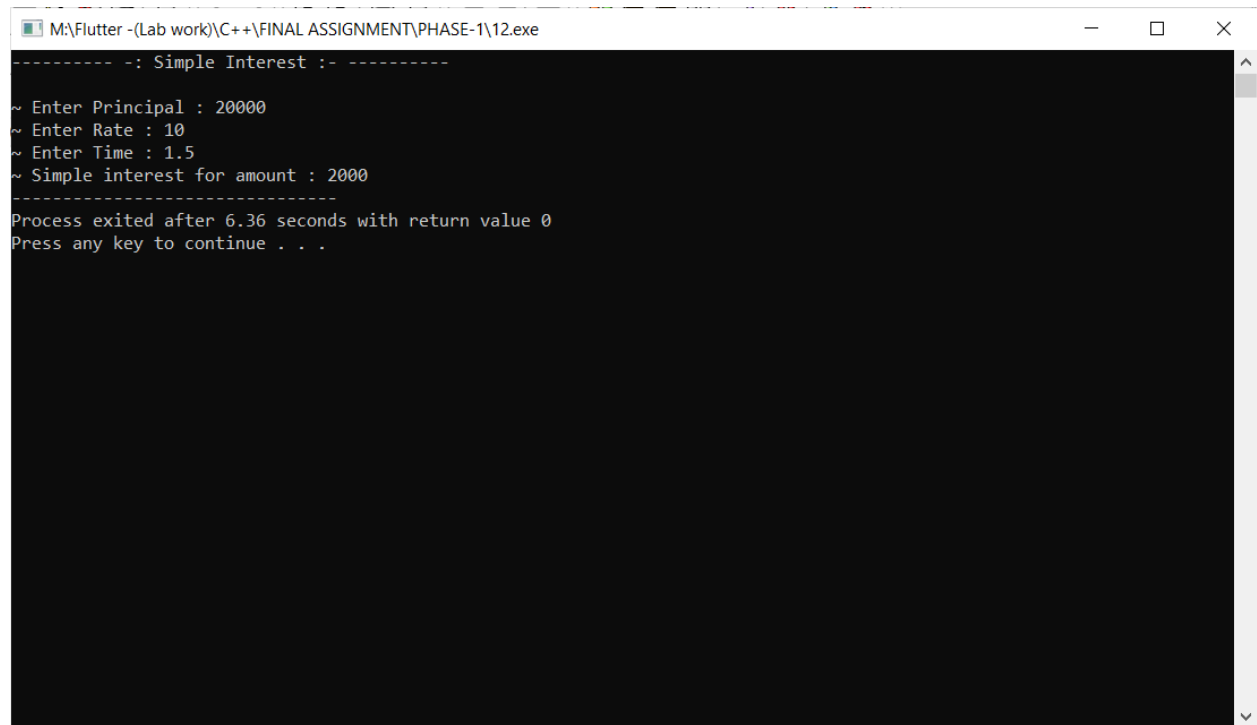
    cout <<"----- -: Simple Interest :- -----"<<endl<<endl;
    cout << "~ Enter Principal : ";    cin >> p;
    cout << "~ Enter Rate : ";        cin >> r;
    cout << "~ Enter Time : ";        cin >> t;

    si = (p*r*t)/100;

    cout << "~ Simple interest for amount : "<<si;

    return 0;
}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\12.exe
----- -: Simple Interest :- -----
~ Enter Principal : 20000
~ Enter Rate : 10
~ Enter Time : 1.5
~ Simple interest for amount : 2000
-----
Process exited after 6.36 seconds with return value 0
Press any key to continue . . .
```



## **Practical-13**

**Aim:** A fourth standard student forced by his teacher to identify if a given Character is Uppercase, Lowercase, Digit or Special Character. Write a C++ Program to help that student.

### **Program:**

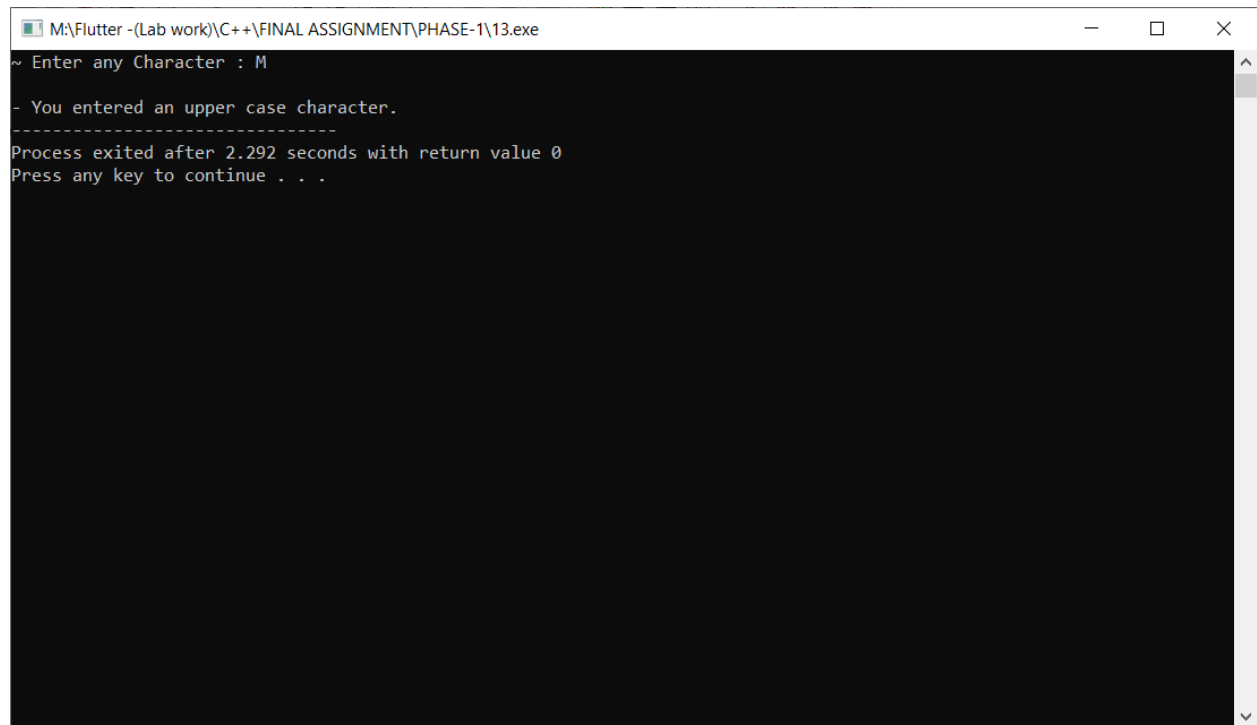
```
#include<iostream>
using namespace std;

int main()
{

char c;
cout << "~ Enter any Character : ";
cin >> c;

if(c>=65 && c<=90)
{
cout <<endl<< "- You entered an upper case character.";
}
else if(c>=97 && c<=122)
{
cout <<endl<< "- You entered an lower case character.";
}
else if(c>=48 && c<=57)
{
cout <<endl<< "- You entered a digit.";
}
else
{
cout <<endl<< "- You entered an special character.";
}
return 0;
}
```

## **Output:**



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\13.exe" and includes standard minimize, maximize, and close buttons. The command prompt itself has a black background with white text. The text displayed is as follows: a prompt character followed by "Enter any Character : M", a line break, a message "- You entered an upper case character.", a line of dashes, a line stating "Process exited after 2.292 seconds with return value 0", and a final line "Press any key to continue . . .". A vertical scrollbar is visible on the right side of the command prompt area.

```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\13.exe
~ Enter any Character : M

- You entered an upper case character.
-----
Process exited after 2.292 seconds with return value 0
Press any key to continue . . .
```

## **Practical-14**

**Aim:** Gaurav must have to teach his little 5 years old baby to check whether a given year is leap year or not. Write a C++ Program to provide a solution for Gaurav.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int n;
cout << "~ Enter any value: ";
cin >> n;

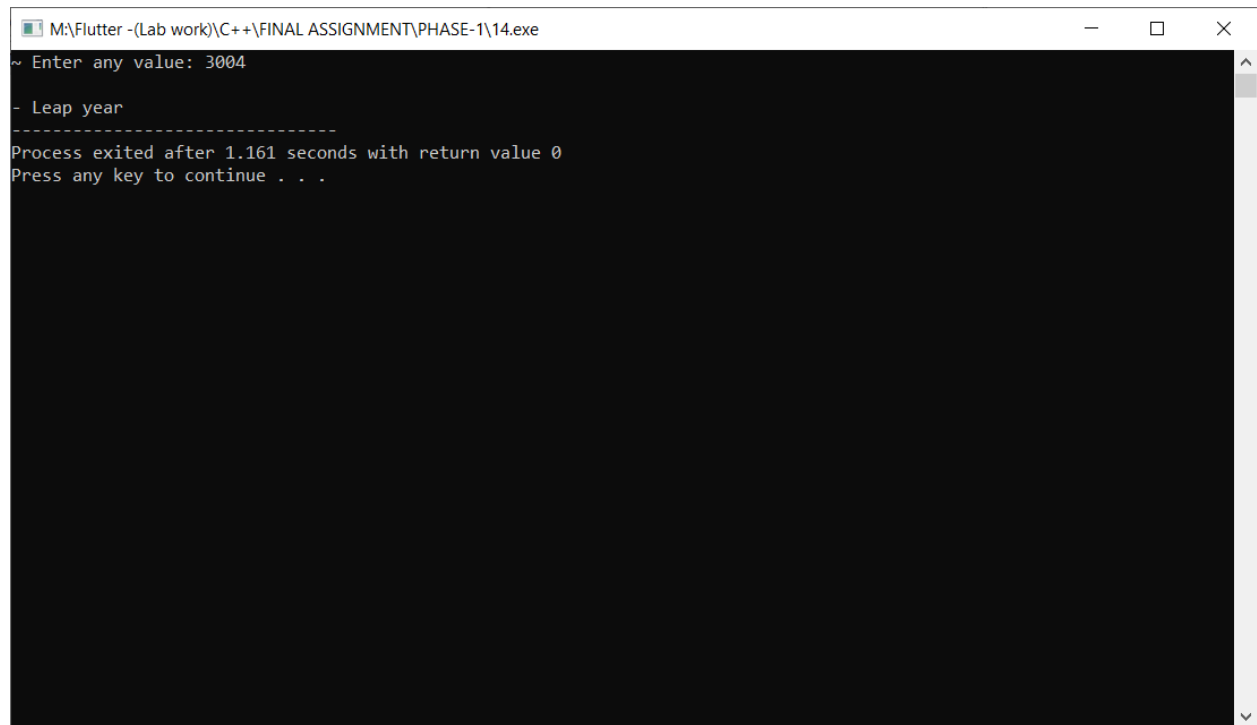
//if (n%4==0 || n%400==0 && n%100!=0)

if(n%4==0)
{
cout <<endl <<"- Leap year";
}
else
{
cout <<endl <<"- Not leap year";
}

return 0;

}
```

## **Output:**



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\14.exe" and includes standard minimize, maximize, and close buttons. The command prompt area has a black background with white text. The text displayed is as follows: a prompt character followed by "Enter any value: 3004", a line break, a hyphen followed by "Leap year", a line break, a dashed line separator, and then the messages "Process exited after 1.161 seconds with return value 0" and "Press any key to continue . . .". A vertical scrollbar is visible on the right side of the command prompt area.

```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\14.exe
~ Enter any value: 3004
- Leap year
-----
Process exited after 1.161 seconds with return value 0
Press any key to continue . . .
```

## **Practical-15**

**Aim: Aaryan is constantly trying to Check Whether a character is Vowel or Consonant. But for some unknown reason he just cannot remember difference between vowel and consonant. Write a C++ Program to provide a better solution to Aaryan.**

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

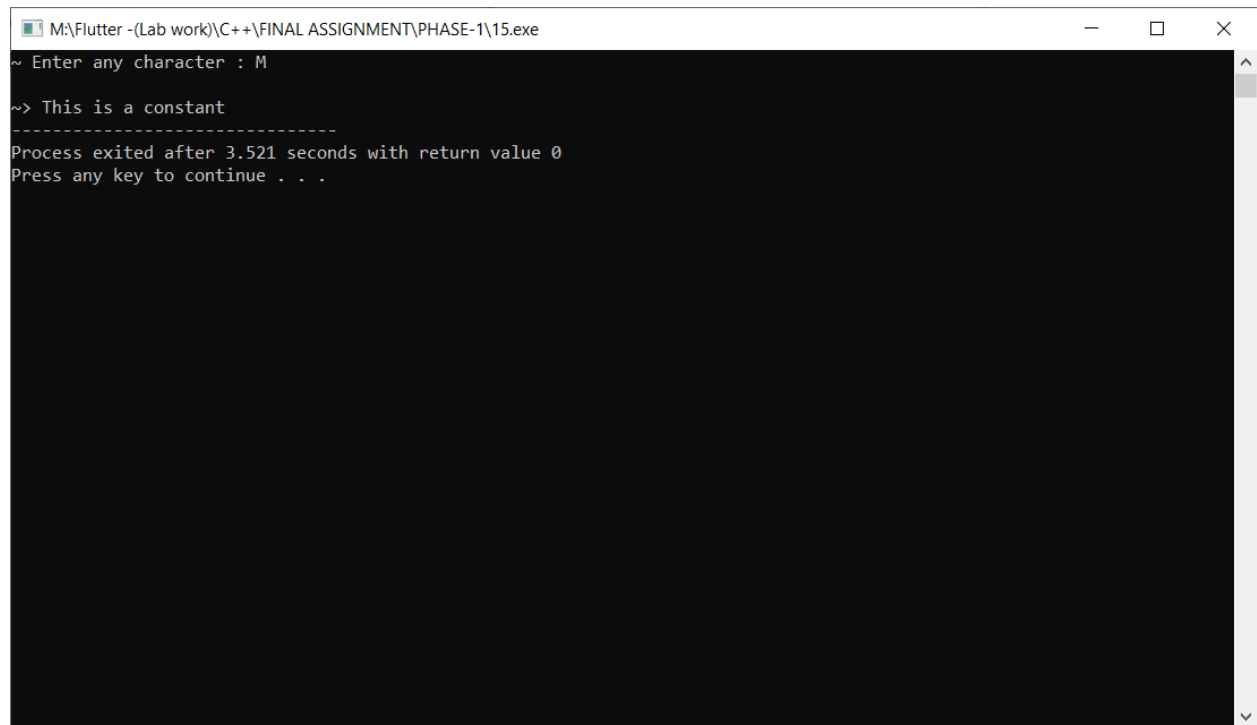
char ch;
cout << "~ Enter any character : ";
cin >> ch;

if(ch=='a'||ch=='e'||ch=='i'||ch=='o'||ch=='u'||ch=='A'||ch=='E'||ch=='I'||ch=='O'||ch=='U')
{
cout <<endl<< "~> This is a vowels";
}
else
{
cout <<endl<< "~> This is a constant";
}

return 0;

}
```

## **Output:**



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\15.exe" and includes standard minimize, maximize, and close buttons. The command prompt area has a black background with white text. The text displayed is as follows:

```
~ Enter any character : M  
  
~> This is a constant  
-----  
Process exited after 3.521 seconds with return value 0  
Press any key to continue . . .
```

The text is left-aligned. There is a vertical scrollbar on the right side of the command prompt window, with the scroll bar handle positioned near the top.

## **Practical-16**

**Aim:** Two friends are playing a game in which they have to check whether a given number is Even or Odd. Help them to Write a C++ Program for that.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

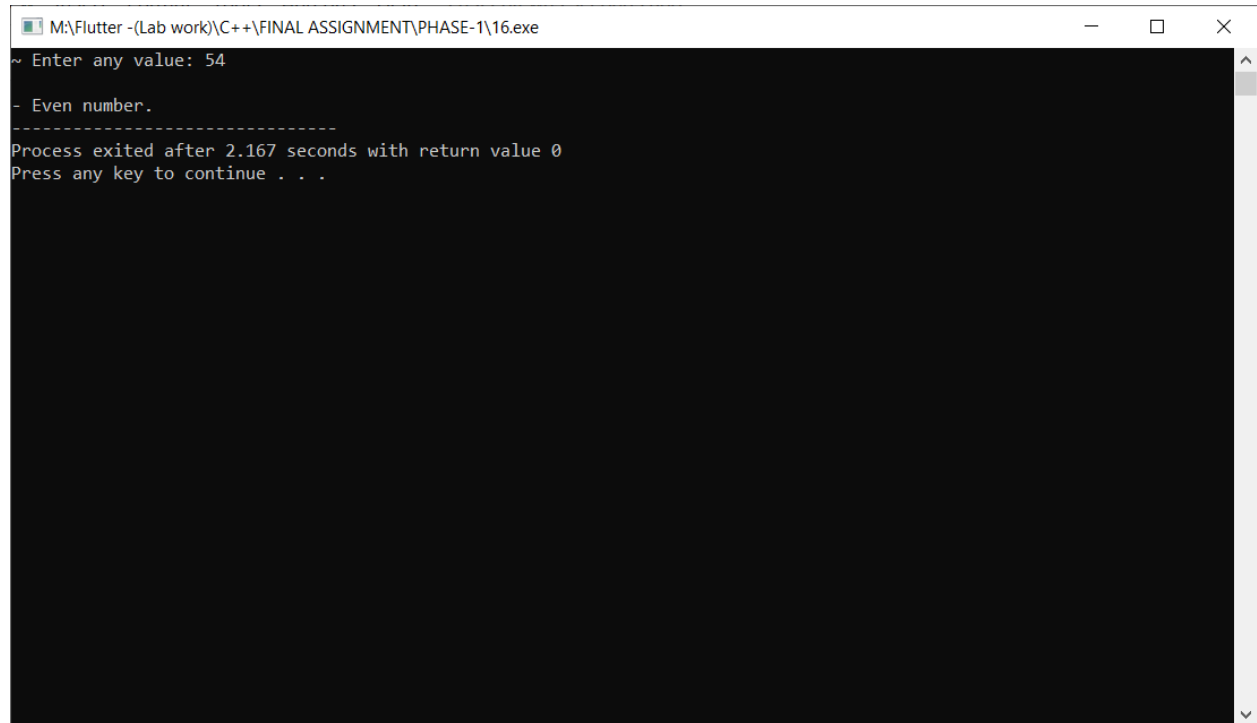
int n;
cout << "~ Enter any value: ";
cin >> n;

if(n%2==0)
{
cout <<endl<< "- Even number.";
}
else
{
cout <<endl<< "- Odd number.";
}

return 0;

}
```

## Output:



A screenshot of a Windows command prompt window. The title bar at the top reads "M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\16.exe" and includes standard minimize, maximize, and close buttons. The command prompt area has a black background with white text. The text displayed is as follows:

```
~ Enter any value: 54  
  
- Even number.  
-----  
Process exited after 2.167 seconds with return value 0  
Press any key to continue . . .
```

The output indicates that the user entered the value 54, which was identified as an even number. The program then exited after 2.167 seconds with a return value of 0. The prompt "Press any key to continue . . ." is visible at the bottom of the text.



## **Practical-17**

**Aim:** Sameer needs to master a technique to find if a given number is Prime number or not for his best presentation at the Teachers Day to impress his Math teacher. Help sameer to Write a C++ Program with best technique.

### **Program:**

```
#include<iostream>
using namespace std;

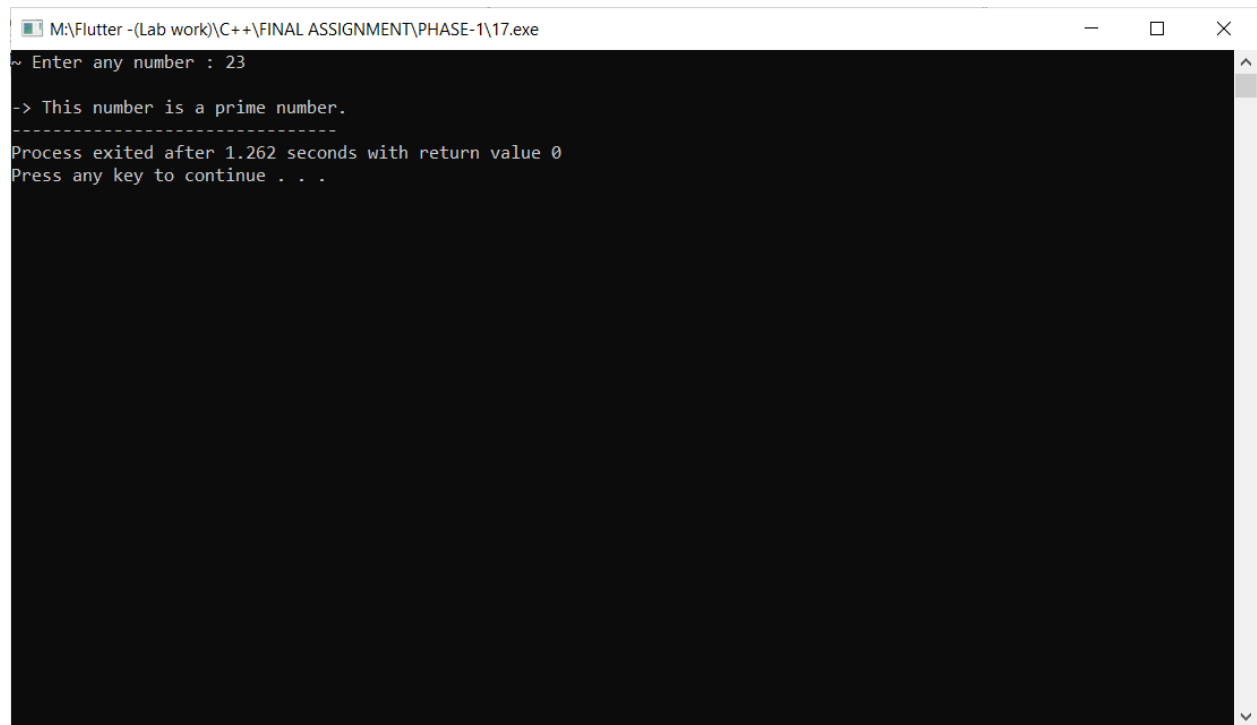
int main()
{
    int i,n,count=0;

    cout << "~ Enter any number : ";
    cin >> n;

    for(i=2;i<=n;i++)
    {
        if(n%i!=0)
        {
            count++;
        }
    }
    if(count==n-2)
    {
        cout << endl << "-> This number is a prime number.";
    }
    else
    {
        cout << endl << "-> This number is not a prime number.";
    }

    return 0;
}
```

## **Output:**



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\17.exe
~ Enter any number : 23
-> This number is a prime number.
-----
Process exited after 1.262 seconds with return value 0
Press any key to continue . . .
```

## **Practical-18**

**Aim:** Tushar is trying very hard to teach his classmate Harsh that how to find Factorial of a Number. Write a C++ Program for Tushar with best possible technique.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int i,n,a=1;
cout << "~ Enter any value : ";
cin >> n;

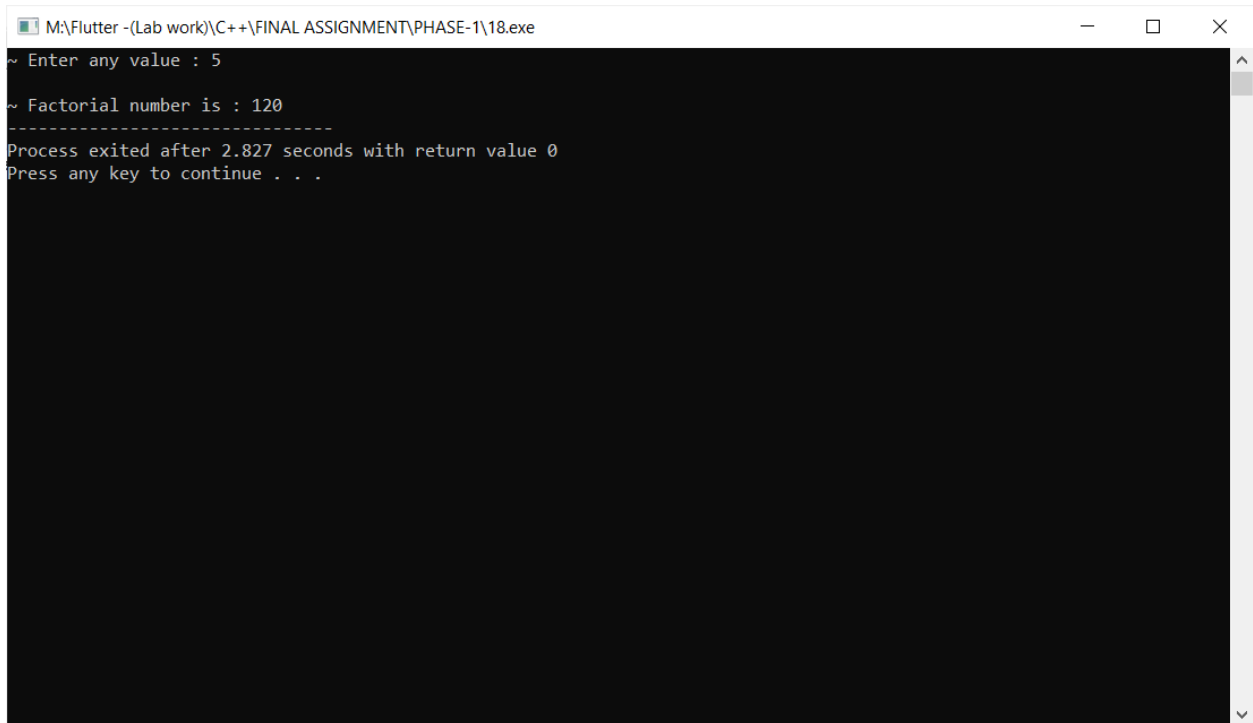
for(i=1;i<=n;i++)
{
a=a*i;
}

cout << endl << "~ Factorial number is : " << a;

return 0;

}
```

## **Output:**



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\18.exe
~ Enter any value : 5
~ Factorial number is : 120
-----
Process exited after 2.827 seconds with return value 0
Press any key to continue . . .
```

## Practical-19

**Aim:** Write a C++ program to Print Table of any Number less than 10. A group of needy newbie math students will appreciate your help for your help.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int i,j,sum,n;
cout <<"~> Enter any number : ";
cin >> n;
cout <<endl<< "~> Multiplication Table : "<<endl;

if(n<=10)
{
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=10;j++)
        {
            sum = i*j;
            cout << i <<"*"<<j <<"="<<sum<<endl;
        }
        cout<<endl;
    }
}
else
{
    cout << "- Invalid input ..";
}
return 0;
}
```

## Output:

M:\Flutter -(lab work)\C++\FINAL ASSIGNMENT\PHASE-1\19.exe

-> Enter any number : 4

-> Multiplication Table :

1\*1=1  
1\*2=2  
1\*3=3  
1\*4=4  
1\*5=5  
1\*6=6  
1\*7=7  
1\*8=8  
1\*9=9  
1\*10=10

2\*1=2  
2\*2=4  
2\*3=6  
2\*4=8  
2\*5=10  
2\*6=12  
2\*7=14  
2\*8=16  
2\*9=18  
2\*10=20

3\*1=3  
3\*2=6  
3\*3=9  
3\*4=12  
3\*5=15  
3\*6=18  
3\*7=21  
3\*8=24  
3\*9=27  
3\*10=30

4\*1=4  
4\*2=8  
4\*3=12  
4\*4=16  
4\*5=20  
4\*6=24  
4\*7=28  
4\*8=32  
4\*9=36  
4\*10=40

.....  
Process exited after 0.5539 seconds with return value 0

## **Practical-20**

**Aim:** A Teacher give a punishment to all students to find reverse numbers of given 3 random numbers by logically under 15 minutes.  
**Write a C++ Program to provide a solution for this problem.**

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{
    int n,r,rev=0;

    cout <<"=> Enter any value : ";
    cin >> n;
    cout <<endl<<"=> Reverse Number :";

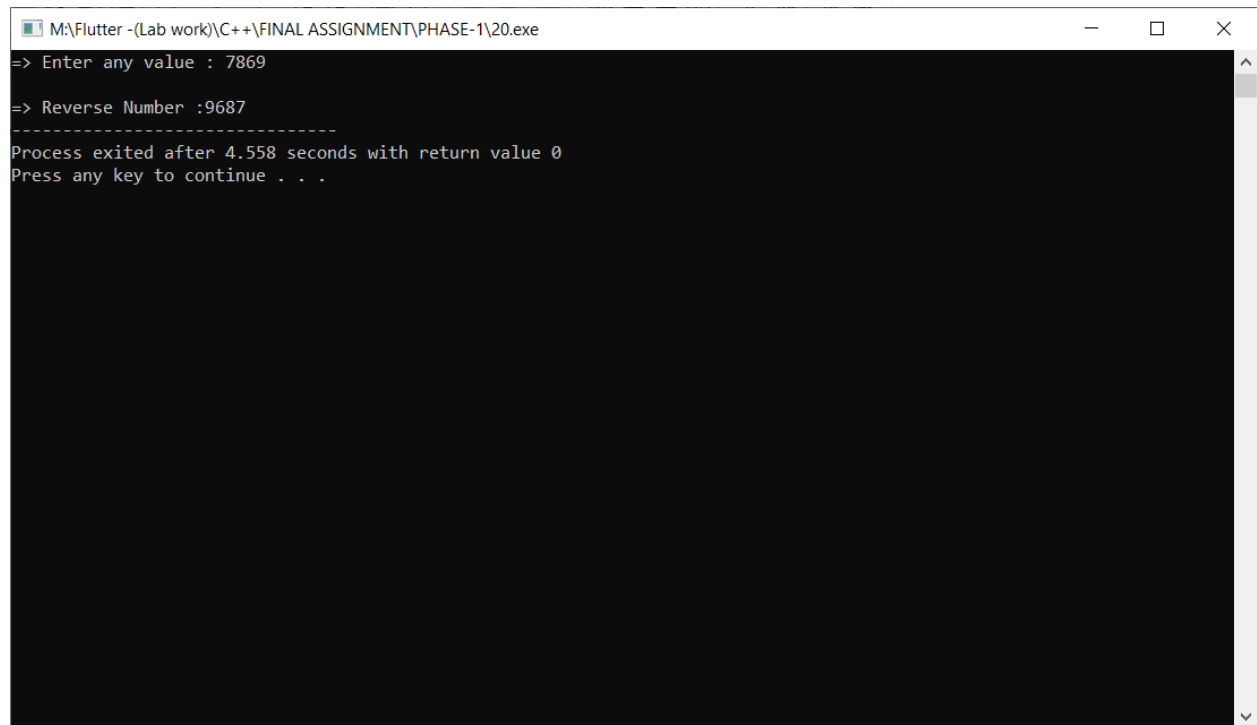
    while(n!=0)
    {

        r=n%10;
        rev=rev*10/r;
        n=n/10;
        cout <<r;

    }
    return 0;

}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\20.exe
=> Enter any value : 7869
=> Reverse Number :9687
-----
Process exited after 4.558 seconds with return value 0
Press any key to continue . . .
```



## **Practical-21**

**Aim:** Priya wants to teach his newly enrolled boy that how to find number of Digits in any number. Write a C++ Program to provide a solution for this problem.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int n,c=0;

cout << "~ Enter any number : ";
cin >> n;

while (n>0)
{

n=n/10;
c++;

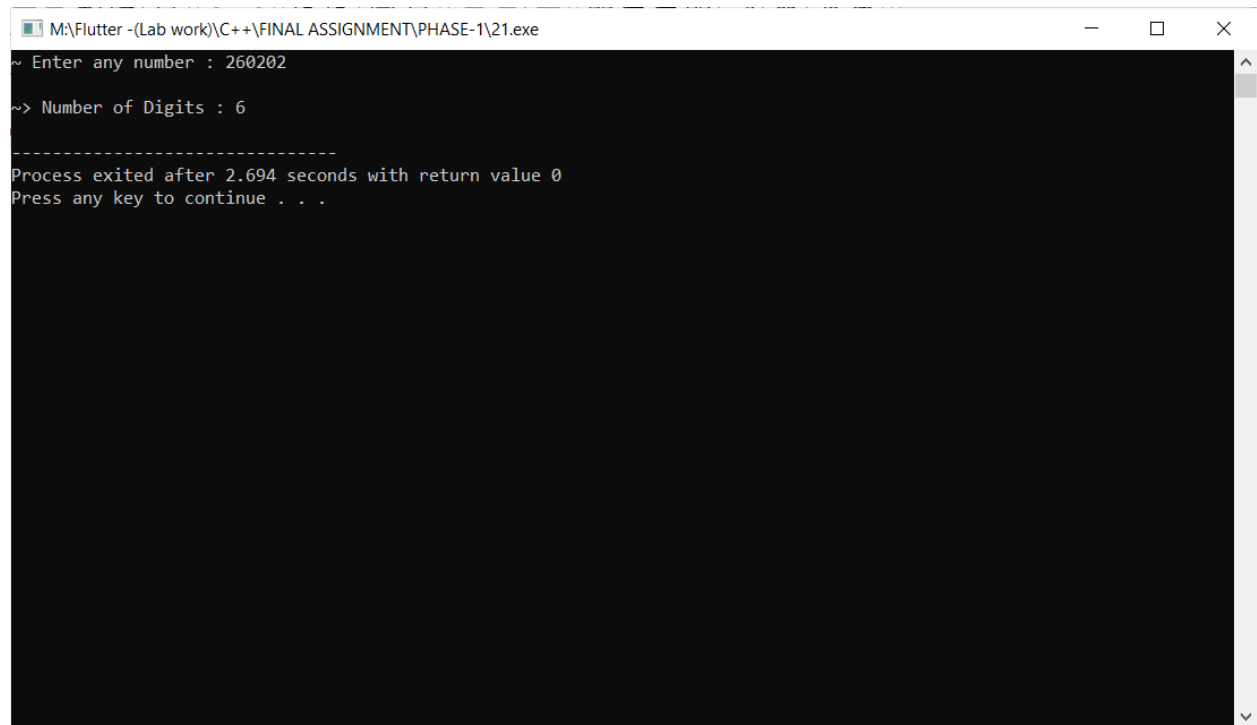
}

cout << endl << "~> Number of Digits : " << c << endl;

return 0;

}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\21.exe
~ Enter any number : 260202
~> Number of Digits : 6
-----
Process exited after 2.694 seconds with return value 0
Press any key to continue . . .
```

## **Practical-22**

**Aim: Write a C++ Program to find Fibonacci Series upto N numbers to help Darshan by passing fastest-finger first round for entering Coding Quiz competition.**

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int i,n;
int t1=0 ,t2=1 ,s;

cout << "~ Enter any number : ";
cin >> n;

cout << endl << "->Fibonacci Series : " << s;
for(i=2;i<n;i++)
{

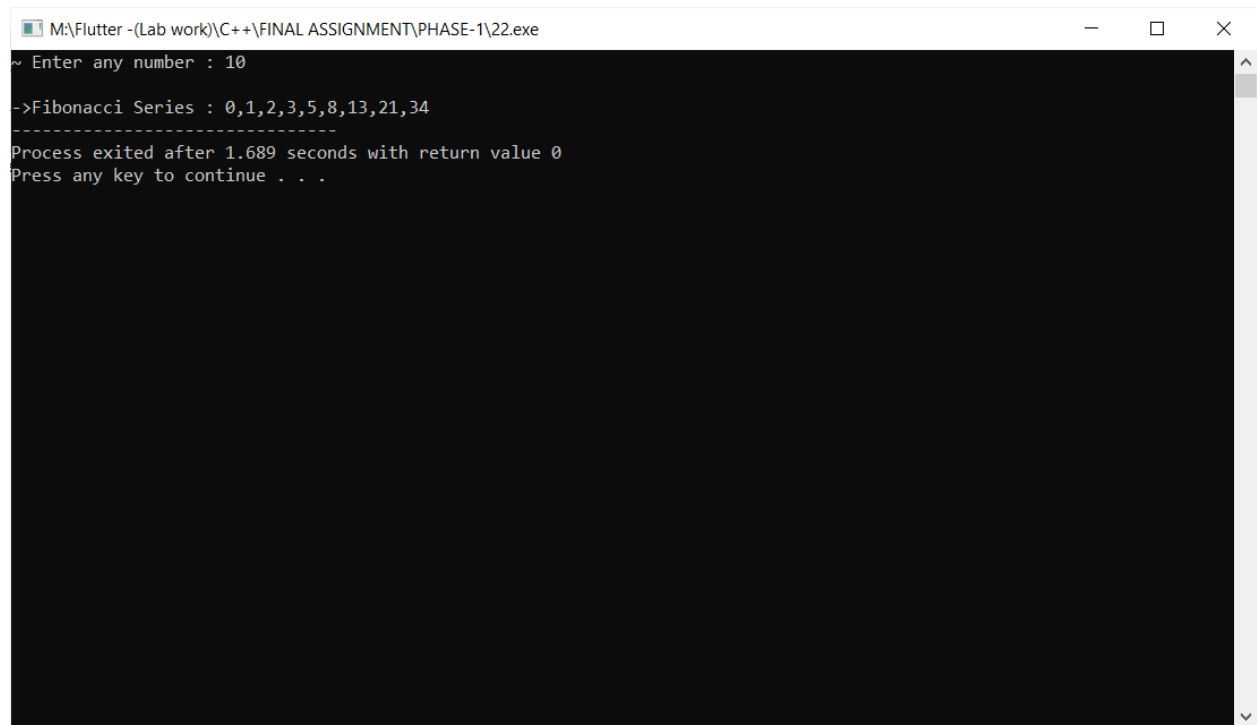
s= t1+t2;
cout << "," << s ;
t1=t2;
t2=s;

}

return 0;

}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\22.exe
~ Enter any number : 10
->Fibonacci Series : 0,1,2,3,5,8,13,21,34
-----
Process exited after 1.689 seconds with return value 0
Press any key to continue . . .
```

## Practical-23

**Aim:** By writing a logic for checking if a given number is Armstrong or Not, Mayur will be qualified for an entrance exam. Write a C++ Program for Mayur to qualify.

### **Program:**

```
#include<iostream>
using namespace std;

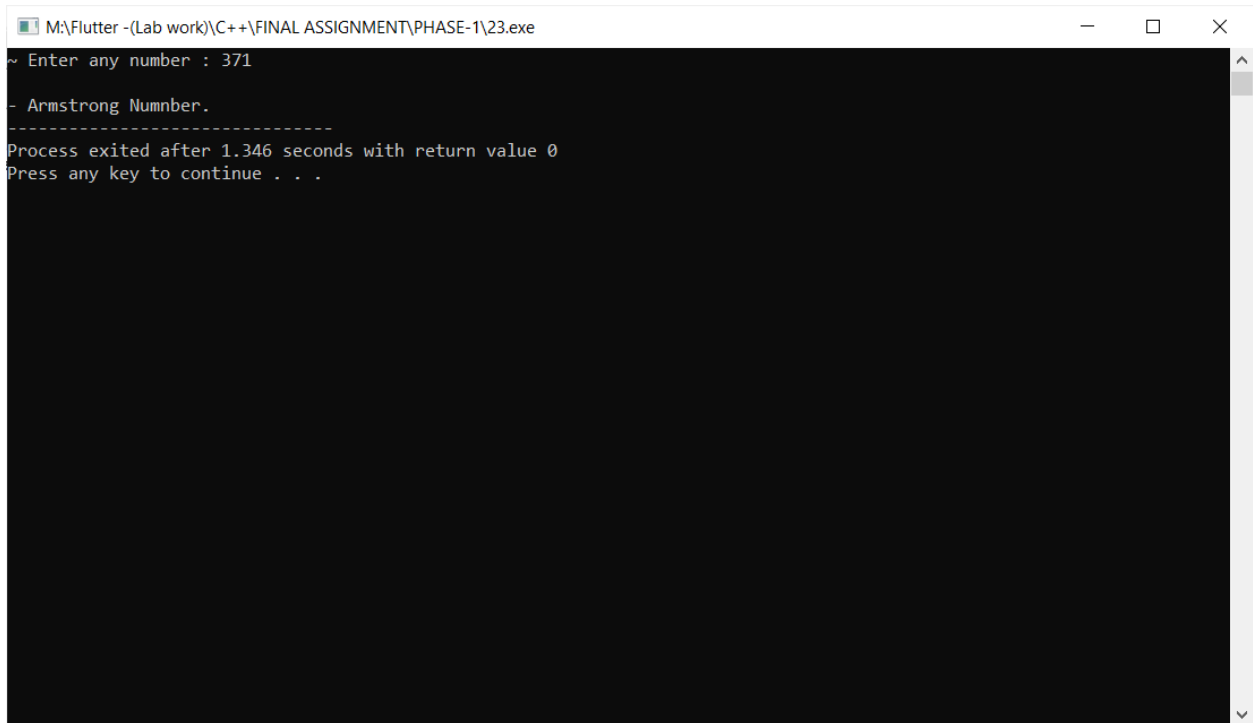
int main()
{

int n,r,y=0,temp;
cout << "~ Enter any number : ";
cin >> n;

temp = n;

while(n!=0)
{
r=n%10;
n=n/10;
y=y+(r*r*r);
}
if(y==temp)
{
cout <<endl<<"- Armstrong Number.";
}
else
{
cout <<endl<<"- Not Armstrong Numnber";
}
return 0;
}
```

## Output:



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\23.exe
~ Enter any number : 371
- Armstrong Numnber.
-----
Process exited after 1.346 seconds with return value 0
Press any key to continue . . .
```

## **Practical-24**

**Aim:** By writing a logic for checking if a given string is Palindrom or Not, Apexa will be qualified for an entrance exam. Write a C++ Program for Apexa to qualify.

### **Program:**

```
#include<iostream>
#include<string.h>
using namespace std;

int main()
{

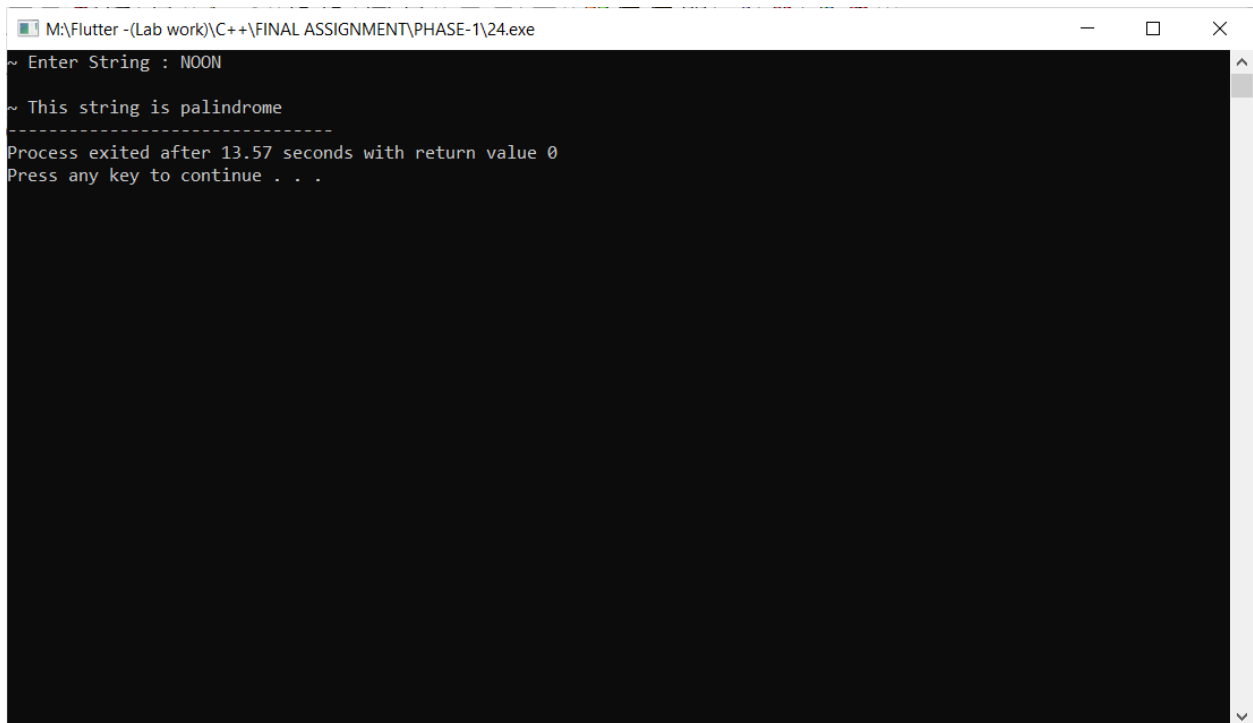
char s[1000];
int i,n,c=0;
cout << "~ Enter String : ";
cin >> s;

n=strlen(s);

for(i=0;i<n/2;i++)
{
if(s[i]==s[n-i-1])
{
c++;
}
}
if(c==i)
{
cout<<endl<<"~ This string is palindrome";
}
else
{
cout <<endl<<"~ This string is not palindrome";
```

```
}  
return 0;  
}
```

## **Output:**



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\24.exe  
~ Enter String : NOON  
~ This string is palindrome  
-----  
Process exited after 13.57 seconds with return value 0  
Press any key to continue . . .
```



## **Practical-25**

**Aim:** By using an easy technique, Write a C++ program to Find Largest Number among four numbers to help Prisha boost-up her confidence in logical building process.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int a,b,c,d;

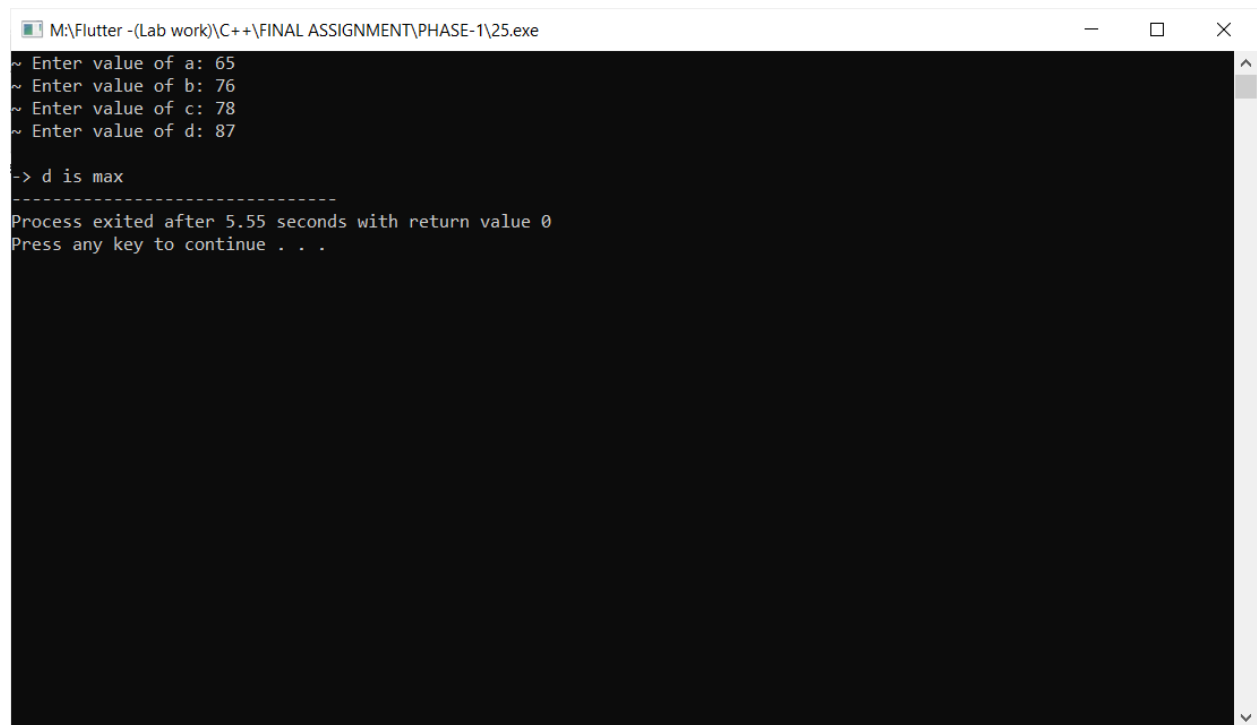
cout << "~ Enter value of a: ";
cin >> a;
cout << "~ Enter value of b: ";
cin >> b;
cout << "~ Enter value of c: ";
cin >> c;
cout << "~ Enter value of d: ";
cin >> d;

if(a==b && b==c && c==d)
{
cout << endl << "-> All values are same ";
}
else
{
if(a>b)
{
if(a>c)
{
if(a>d)
```

```
{
cout <<endl<< "-> a is max";
}
else
{
cout <<endl<< "-> d is max";
}
}
else
{
if(c>d)
{
cout <<endl<< "-> c is max";
}
else
{
cout <<endl<< "-> d is max";
}
}
}
else
{
if(b>c)
{
if(b>d)
{
cout <<endl<< "-> b is max";
}
else
{
cout <<endl<< "-> d is max";
}
}
else
{
if(c>d)
{
cout <<endl<< "-> c is max";
}
else
```

```
{  
cout <<endl<<"-> d is max";  
}  
}  
}  
}  
  
return 0;  
  
}
```

## **Output:**



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\25.exe  
~ Enter value of a: 65  
~ Enter value of b: 76  
~ Enter value of c: 78  
~ Enter value of d: 87  
  
-> d is max  
-----  
Process exited after 5.55 seconds with return value 0  
Press any key to continue . . .
```

## **Practical-26**

**Aim:** Develop a simple comparison system which identify if given number is Palindrome or not. By this system, a bank employee will appreciate your help. Write a C++ program for developing this system.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int temp,num,digits,rev=0;

cout << "~ Enter any number: ";
cin >> num;

temp = num;

while (num!=0)
{

digits = num % 10;
rev = (rev * 10)+digits;
num = num/10;

}
cout <<endl<<"~ Reverse number: "<<rev <<endl;

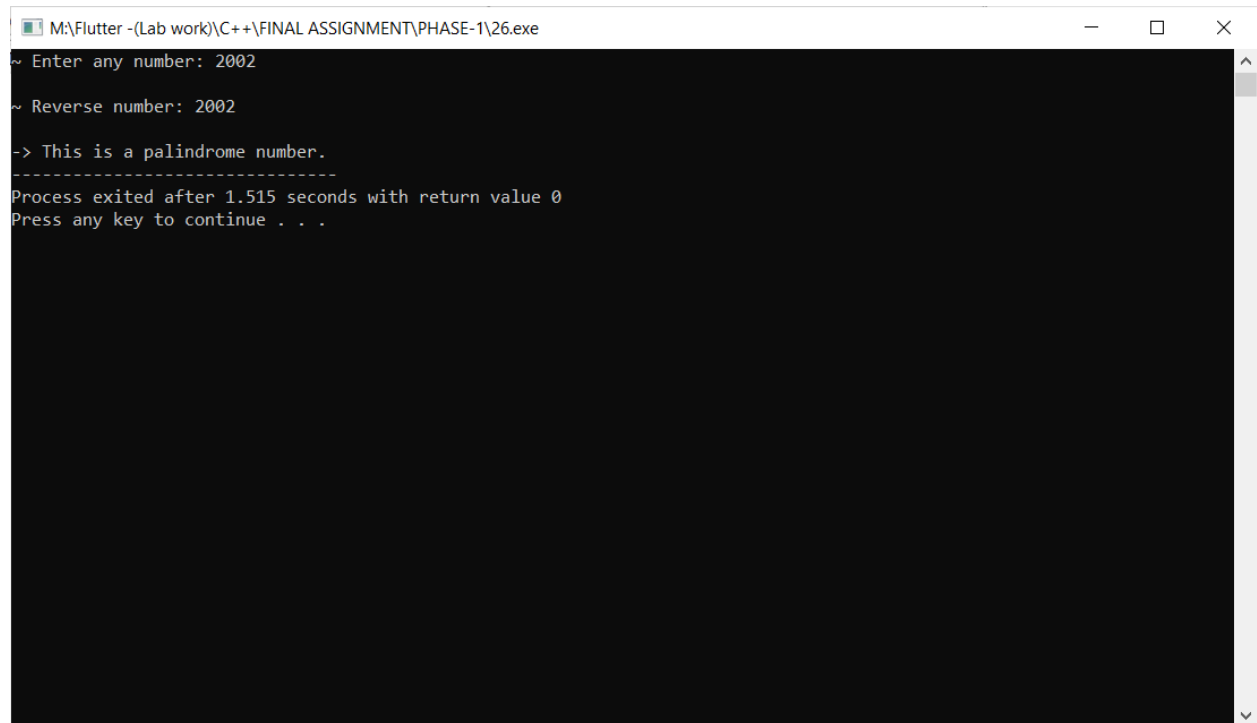
if (temp == rev)
{
cout << endl<<"-> This is a palindrome number.";
}
}
```

```
else
{
cout <<endl<< "-> This is not a palindrome number.";
}

return 0;

}
```

## **Output:**



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\26.exe
~ Enter any number: 2002
~ Reverse number: 2002
-> This is a palindrome number.
-----
Process exited after 1.515 seconds with return value 0
Press any key to continue . . .
```

## **Practical-27**

**Aim:** Create a addition logic to find sum of all digits of a given number to surpass a very challenging dream of Tanmay. Write a C++ program to develop this system for Tanmay.

### **Program:**

```
#include<iostream>
using namespace std;

int main()
{

int rem,sum=0,num;

cout << "~ Enter any number : ";
cin >> num;

while(num > 0)
{

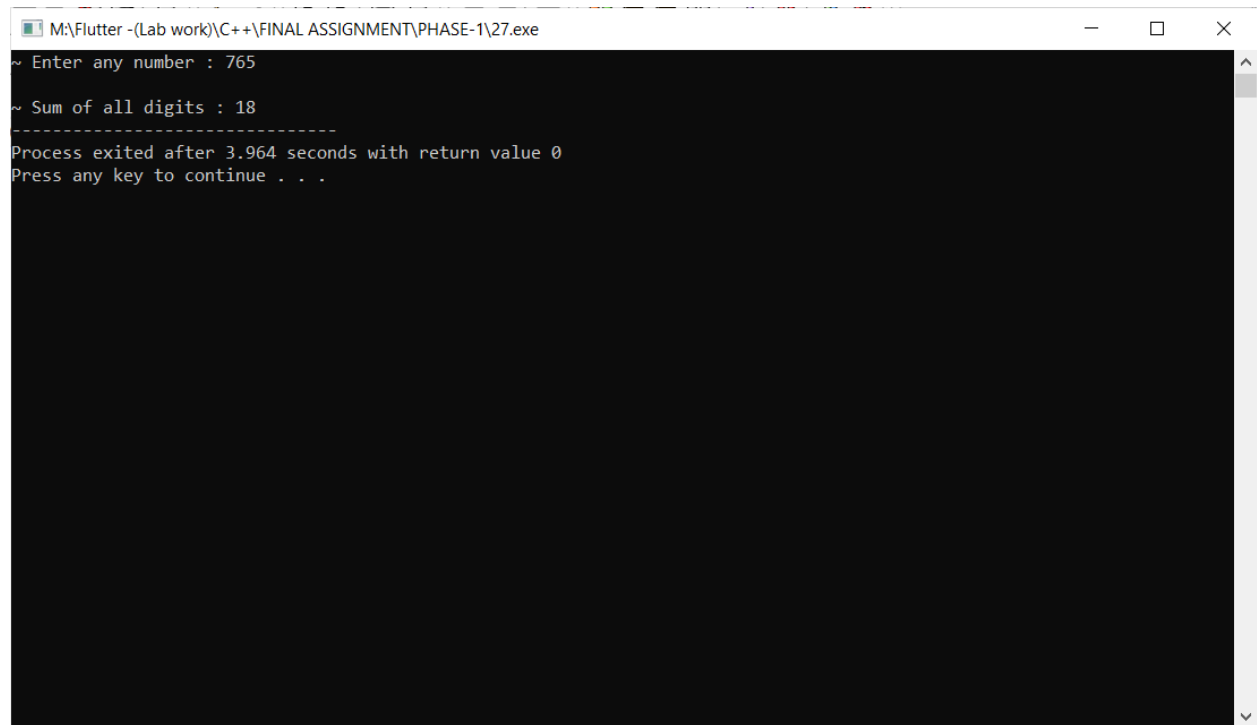
rem = num %10;
sum = sum + rem;
num = num/10;

}
cout <<endl<< "~ Sum of all digits : "<<sum;

return 0;

}
```

## **Output:**



```
M:\Flutter -(Lab work)\C++\FINAL ASSIGNMENT\PHASE-1\27.exe
~ Enter any number : 765
~ Sum of all digits : 18
-----
Process exited after 3.964 seconds with return value 0
Press any key to continue . . .
```