

C

SHUBHAM SAGAR

B.Tech

CSE

C Language Programming

SHUBHAM SAGAR

B.Tech

1st Year

2nd Semester

Computer Science & Engineering

College: NETAJI SUBHASH

ENGINEERING COLLEGE

INDEX

PROJECT NUMBER	TITLE	DATE
01	Sum of the Digit Of the number	18/03/2017
02	Print the Statement entered Time	18/03/2017
03	Area and Circumference of circle	02/04/2017
04	Area of a equilateral triangle	02/04/2017
05	Q. Equation	02/04/2017
06	Leap Year	02/04/2017
07	Calculator	04/04/2017
08	Sum of first and last digit of 4 digit number	13/04/2017
09	$\sin^2(x) + \cos^2(x) \{= \text{ or } !=\}$ to 1	13/04/2017
10	Younger among 3 Persons	13/04/2017
11	Triangle can be formed or not	13/04/2017
12	Grace Marks(switch Case)	14/04/2017
13	Entered 3 Points lies on a straight line or not	14/04/2017
14	Point W.R.T Circle	14/04/2017
15	Prime Number	15/04/2017
16	L.C.F	16/04/2017
17	H.C.M	17/04/2017
18	Mathematical operation as per condition	18/04/2017
19	Addition of (N) Numbers	19/04/2017
20	Factorial of the number	19/04/2017
21	Reverse a number	19/04/2017
22	Armstrong number	19/04/2017
23	Print Smiling face in whole screen	19/04/2017
24	Number of words in a line	03/05/2017
25	Pattern	23/05/2017
26	A.P (Switch case)	23/05/2017
27	Prime Number in a given range	23/05/2017

28	Neon Number in a given range	23/05/2017
29	Neon Number	23/05/2017
30	Any Power of any Number	23/05/2017
31	Sum of (N) Matrix	24/05/2017
32	Transpose of a Matrix	24/05/2017
33	Multiplication of a Matrix	24/05/2017
34	Subtraction of (N) Matrix	24/05/2017
35	Character Pattern	24/05/2017
36	Fibonacci Series	25/05/2017

PROJECT NUMBER : 01

TITLE OF THE PROJECT :

Sum of the Digit Of the number

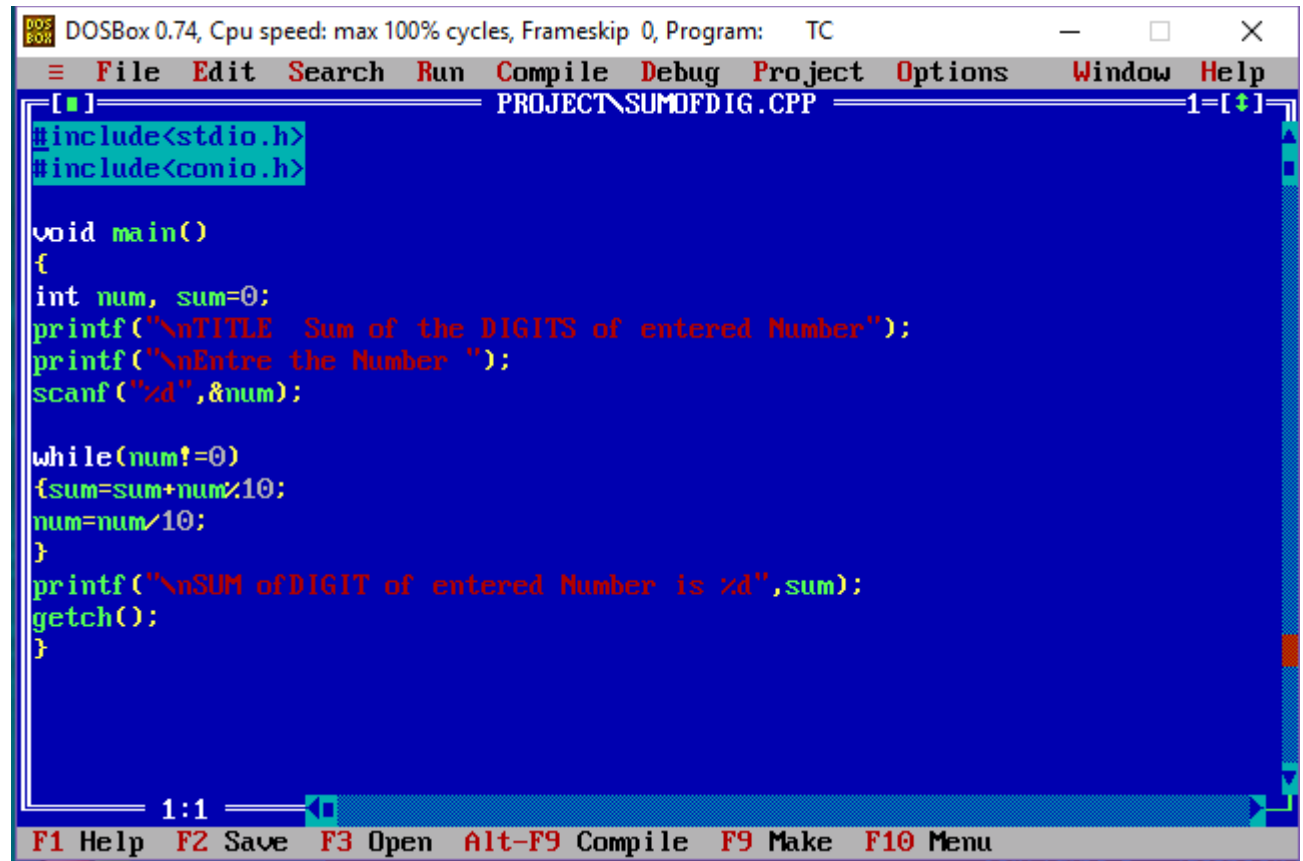
Code-

```
#include<stdio.h>
#include<conio.h>
void main()
{
int num, sum=0;
printf("\nTITLE Sum of the DIGITS of entered Number");
printf("\nEnter the Number ");
scanf("%d",&num);

while(num!=0)
{sum=sum+num%10;
num=num/10;
}
printf("\nSUM ofDIGIT of entered Number is %d",sum);
getch();
}
```

SCREENSHOT-

✓ CODE-



The screenshot shows a DOSBox 0.74 window with a Turbo C++ editor. The window title is "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC". The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The editor window is titled "PROJECT\SUMOFDIG.CPP" and shows the following C++ code:

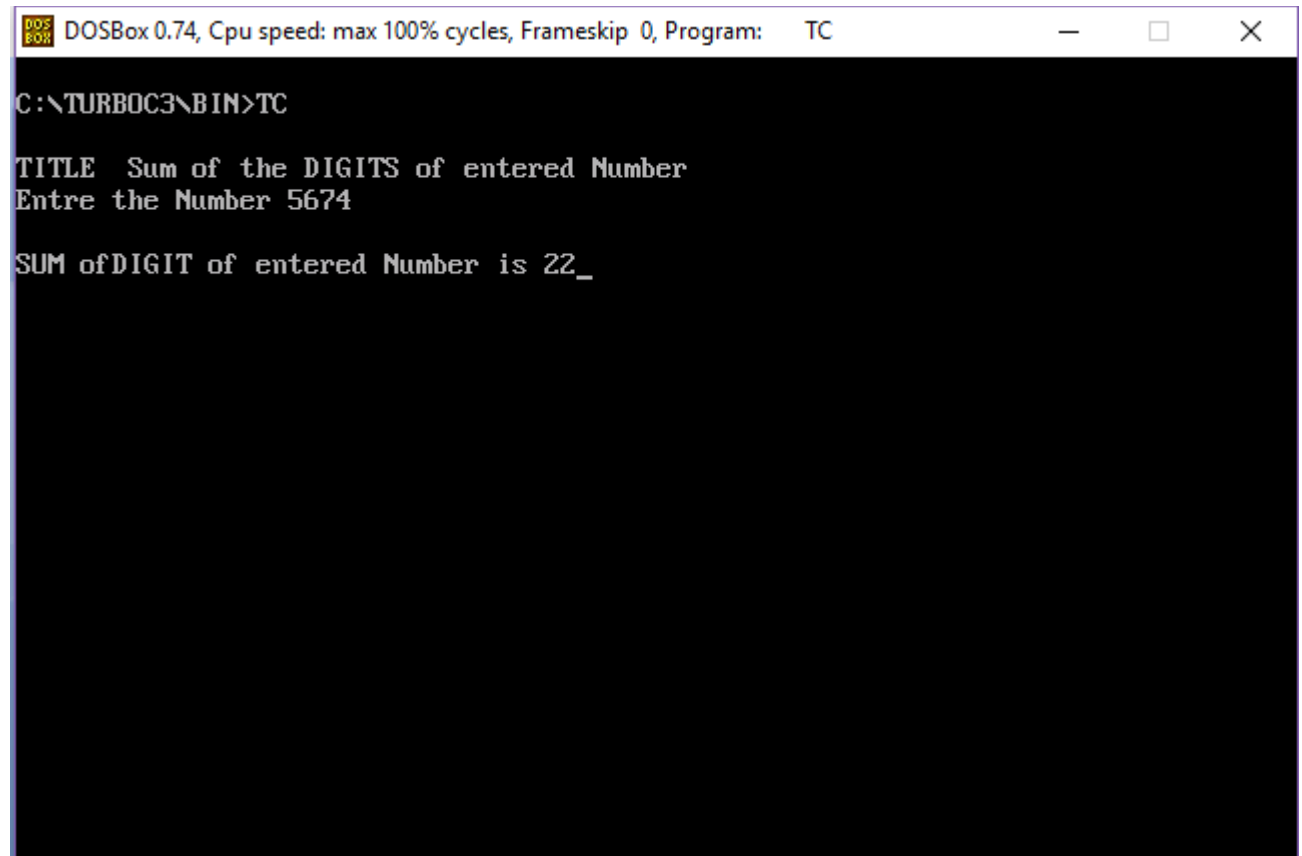
```
#include<stdio.h>
#include<conio.h>

void main()
{
    int num, sum=0;
    printf("\nTITLE Sum of the DIGITS of entered Number");
    printf("\nEnter the Number ");
    scanf("%d",&num);

    while(num!=0)
    {sum=sum+num%10;
    num=num/10;
    }
    printf("\nSUM ofDIGIT of entered Number is %d",sum);
    getch();
}
```

The status bar at the bottom displays function key shortcuts: F1 Help, F2 Save, F3 Open, Alt-F9 Compile, F9 Make, and F10 Menu. The editor also shows a line counter "1:1" and a cursor position indicator "1=[+]" in the top right corner.

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
C:\TURBOC3\BIN>TC
TITLE Sum of the DIGITS of entered Number
Entre the Number 5674
SUM ofDIGIT of entered Number is 22_
```

PROJECT NUMBER : 02

TITLE OF THE PROJECT :

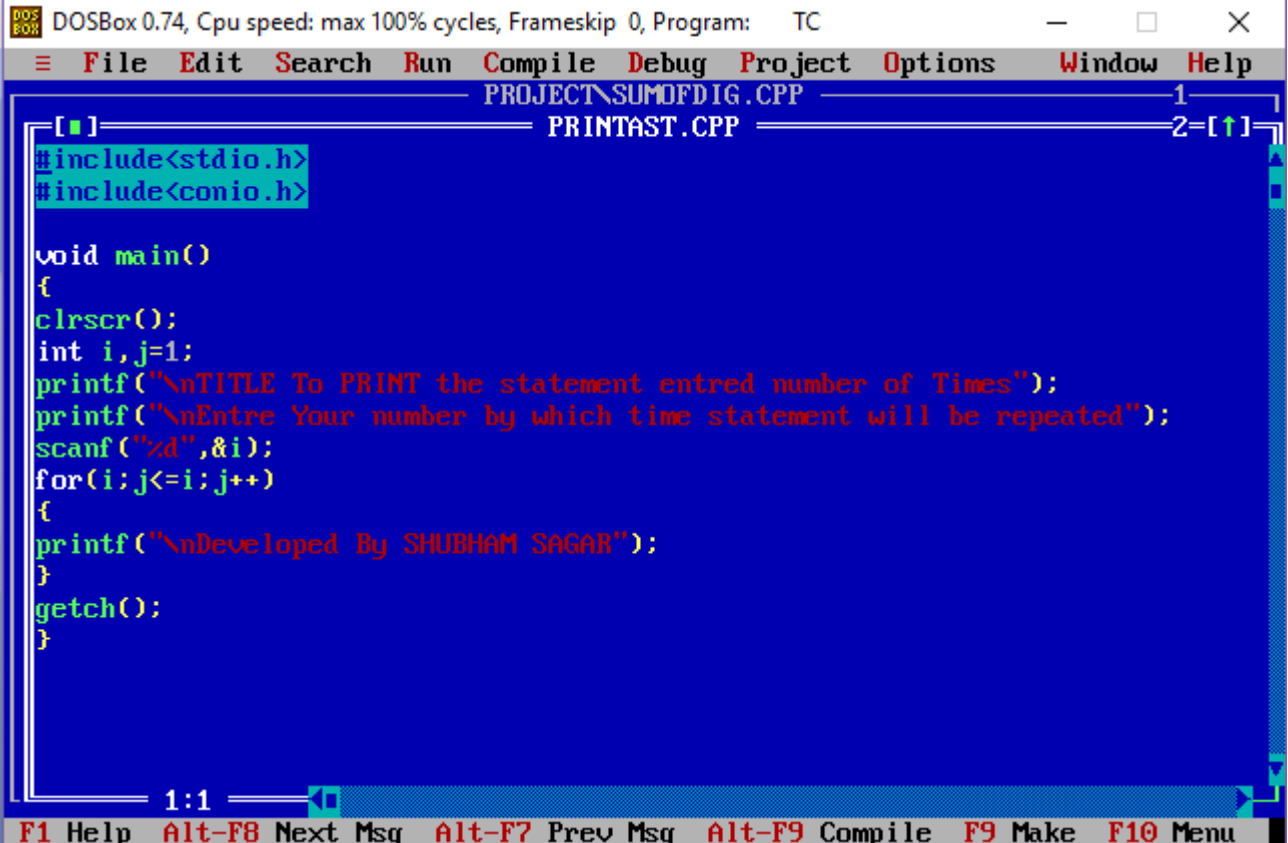
Print The Statement Entred Number of Time

Code-

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
int i,j=1;
printf("\nTITLE To PRINT the statement entred number
of Times");
printf("\nEntre Your number by which time statement will
be repeated");
scanf("%d",&i);
for(i;j<=i;j++)
{
printf("\nDeveloped By SHUBHAM SAGAR");
}
getch();
}
```

SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
PROJECT\SUMOFDIG.CPP 1
PRINTAST.CPP 2=[↑]
#include<stdio.h>
#include<conio.h>

void main()
{
clrscr();
int i,j=1;
printf("\nTITLE To PRINT the statement entred number of Times");
printf("\nEntre Your number by which time statement will be repeated");
scanf("%d",&i);
for(i;j<=i;j++)
{
printf("\nDeveloped By SHUBHAM SAGAR");
}
getch();
}
```

1:1

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

✓ OUTPUT-

The screenshot shows a DOSBox window with the title bar "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC". The command prompt displays the following text:

```
TITLE To PRINT the statement entered number of Times  
Entre Your number by which time statement will be repeated?  
  
Developed By SHUBHAM SAGAR  
Developed By SHUBHAM SAGAR  
Developed By SHUBHAM SAGAR  
Developed By SHUBHAM SAGAR  
Developed By SHUBHAM SAGAR  
Developed By SHUBHAM SAGAR  
Developed By SHUBHAM SAGAR
```

The text "Entre Your number by which time statement will be repeated?" appears to be a typo for "Enter Your number...". The output consists of seven identical lines: "Developed By SHUBHAM SAGAR".

PROJECT NUMBER : 03

TITLE OF THE PROJECT :

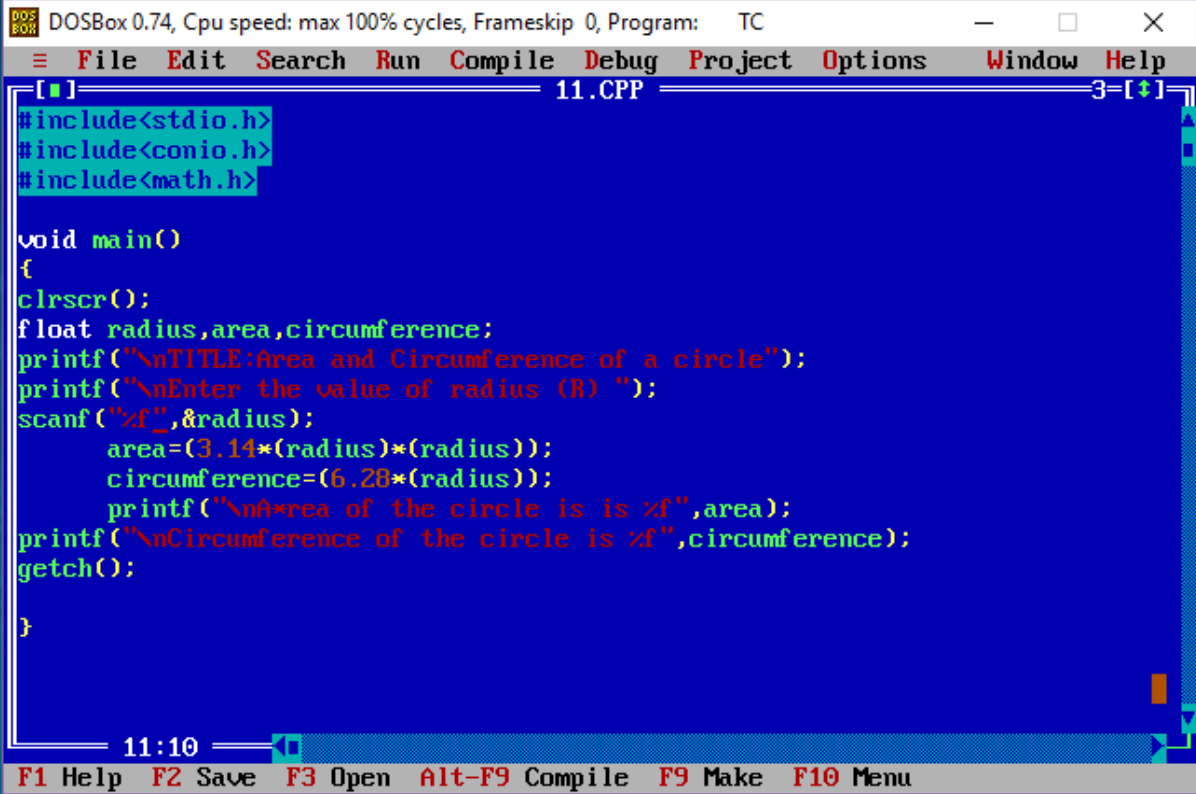
Area and Circumference Of a Circle

Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
clrscr();
float radius,area,circumference;
printf("\nTITLE:Area and Circumference of a circle");
printf("\nEnter the value of radius (R) ");
scanf("%f",&radius);
    area=(3.14*(radius)*(radius));
    circumference=(6.28*(radius));
    printf("\nArea of the circle is is %f",area);
printf("\nCircumference of the circle is
%f",circumference);
getch();
}
```

SCREENSHOT-

✓ CODE-



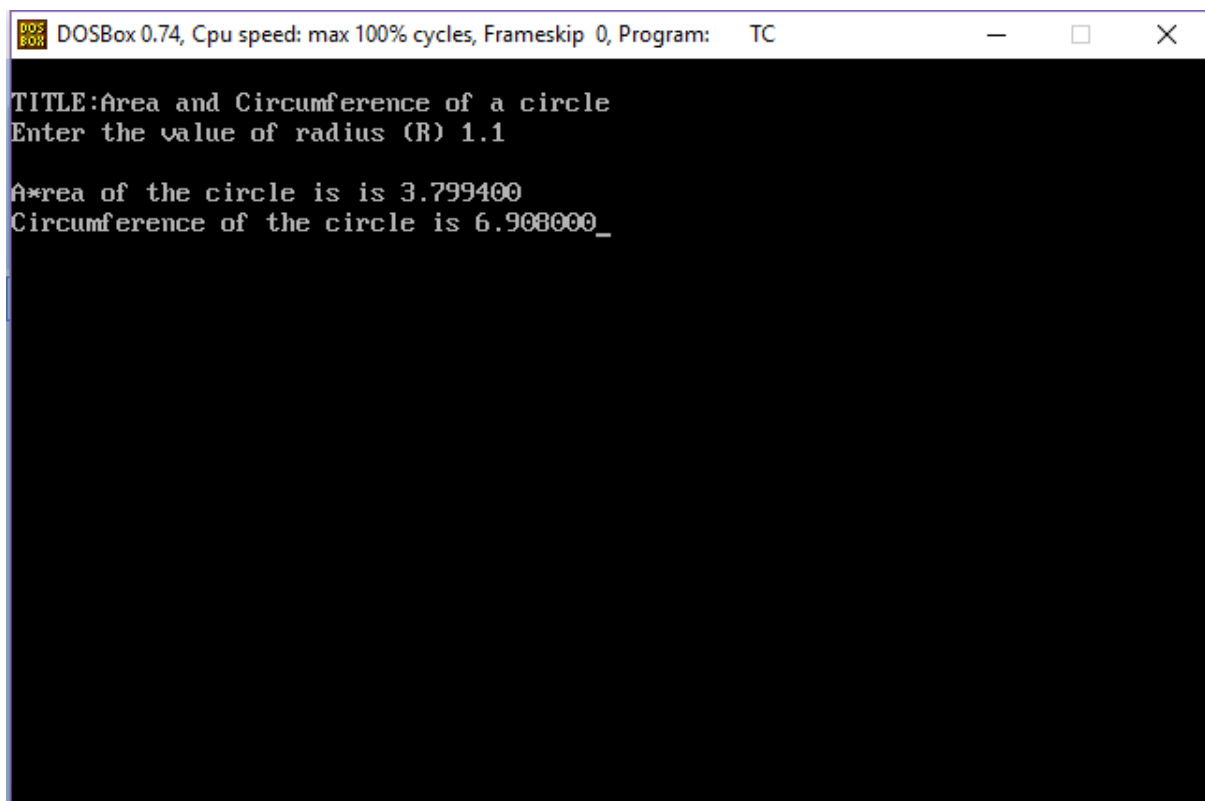
The screenshot shows a DOSBox window titled "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC". The window contains a text editor with a blue background and white text. The text is a C++ program named "11.CPP". The program includes headers for `stdio.h`, `conio.h`, and `math.h`. It defines a `main` function that clears the screen, declares variables for radius, area, and circumference, prompts the user for the radius, and calculates the area and circumference using the formulas $area = 3.14 * radius * radius$ and $circumference = 6.28 * radius$. The results are printed, and the program waits for a key press before exiting.

```
#include<stdio.h>
#include<conio.h>
#include<math.h>

void main()
{
clrscr();
float radius,area,circumference;
printf("\nTITLE:Area and Circumference of a circle");
printf("\nEnter the value of radius (R) ");
scanf("%f",&radius);
    area=(3.14*(radius)*(radius));
    circumference=(6.28*(radius));
    printf("\nArea of the circle is is %f",area);
printf("\nCircumference of the circle is %f",circumference);
getch();
}
```

The bottom status bar of the DOSBox window shows the time "11:10" and a series of function key shortcuts: F1 Help, F2 Save, F3 Open, Alt-F9 Compile, F9 Make, and F10 Menu.

✓ OUTPUT-



DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

```
TITLE:Area and Circumference of a circle
Enter the value of radius (R) 1.1

Area of the circle is is 3.799400
Circumference of the circle is 6.908000_
```

PROJECT NUMBER : 04

TITLE OF THE PROJECT :

Area of a equilateral triangle

Code-

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
#include<math.h>
```

```
void main()
```

```
{
```

```
clrscr();
```

```
float edgelength,area;
```

```
printf("\nTITLE:Area of equilateral triangle");
```

```
printf("\nEnter the value of Side length (a) ");
```

```
scanf("%f",&edgelength);
```

```
    area=(1.732*(edgelength));
```

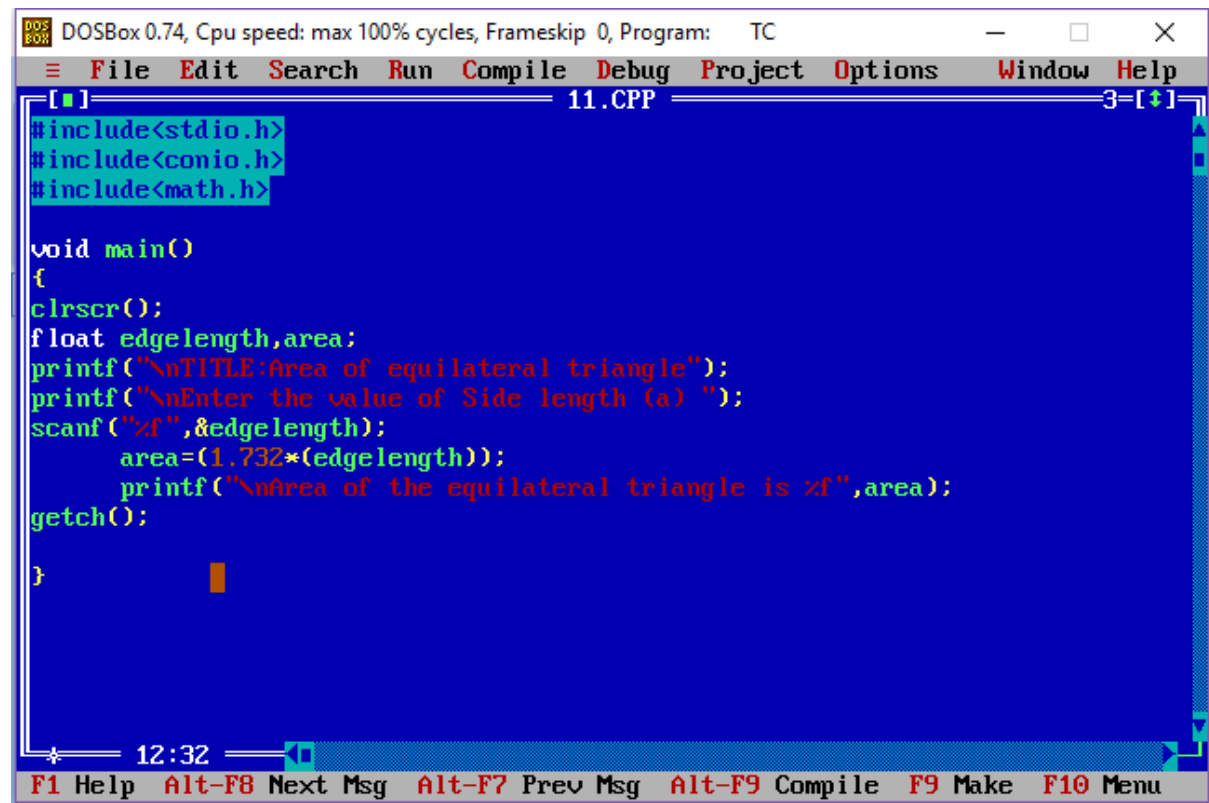
```
    printf("\nArea of the equilateral triangle is %f",area);
```

```
getch();
```

```
}
```

SCREENSHOT-

✓ CODE-

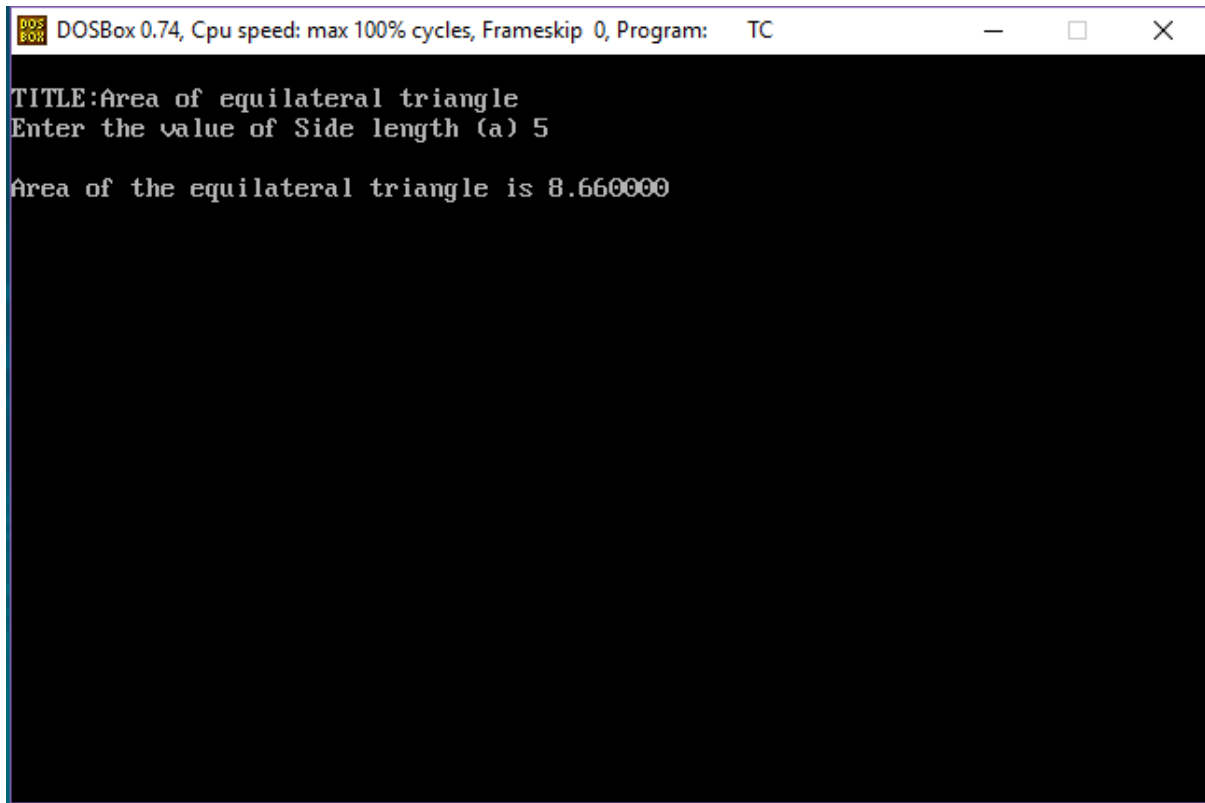


The screenshot shows a DOSBox 0.74 window with a menu bar (File, Edit, Search, Run, Compile, Debug, Project, Options, Window, Help) and a status bar (F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, F10 Menu). The main window displays a C++ program named 11.CPP. The code includes headers for stdio.h, conio.h, and math.h. It defines a main function that clears the screen, prints a title and a prompt, reads a side length, calculates the area using the formula $area = 1.732 * (edgelen\theta)^2$, and prints the result. The status bar shows the time as 12:32.

```
#include<stdio.h>
#include<conio.h>
#include<math.h>

void main()
{
clrscr();
float edgelen\theta,area;
printf("\nTITLE:Area of equilateral triangle");
printf("\nEnter the value of Side length (a) ");
scanf("%f",&edgelen\theta);
    area=(1.732*(edgelen\theta));
    printf("\narea of the equilateral triangle is %f",area);
getch();
}
```

✓ OUTPUT-



DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

```
TITLE:Area of equilateral triangle
Enter the value of Side length (a) 5

Area of the equilateral triangle is 8.660000
```

PROJECT NUMBER : 05

TITLE OF THE PROJECT :

Q.Equation

Code -

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
#include<math.h>
```

```
void main()
```

```
{
```

```
clrscr();
```

```
float a,b,c,d,x1,x2;
```

```
printf("\nTITLE:Q.Equation");
```

```
printf("\nEnter the value of a=");
```

```
scanf("%f",&a);
```

```
printf("\nEnter the value of b=");
```

```
scanf("%f",&b);
```

```
printf("\nEnter the value of c=");
```

```
scanf("%f",&c);
```

```
d=((b*b)-(4*a*c));
```

```
x1=(-b+sqrt(d))/(2*a);
```

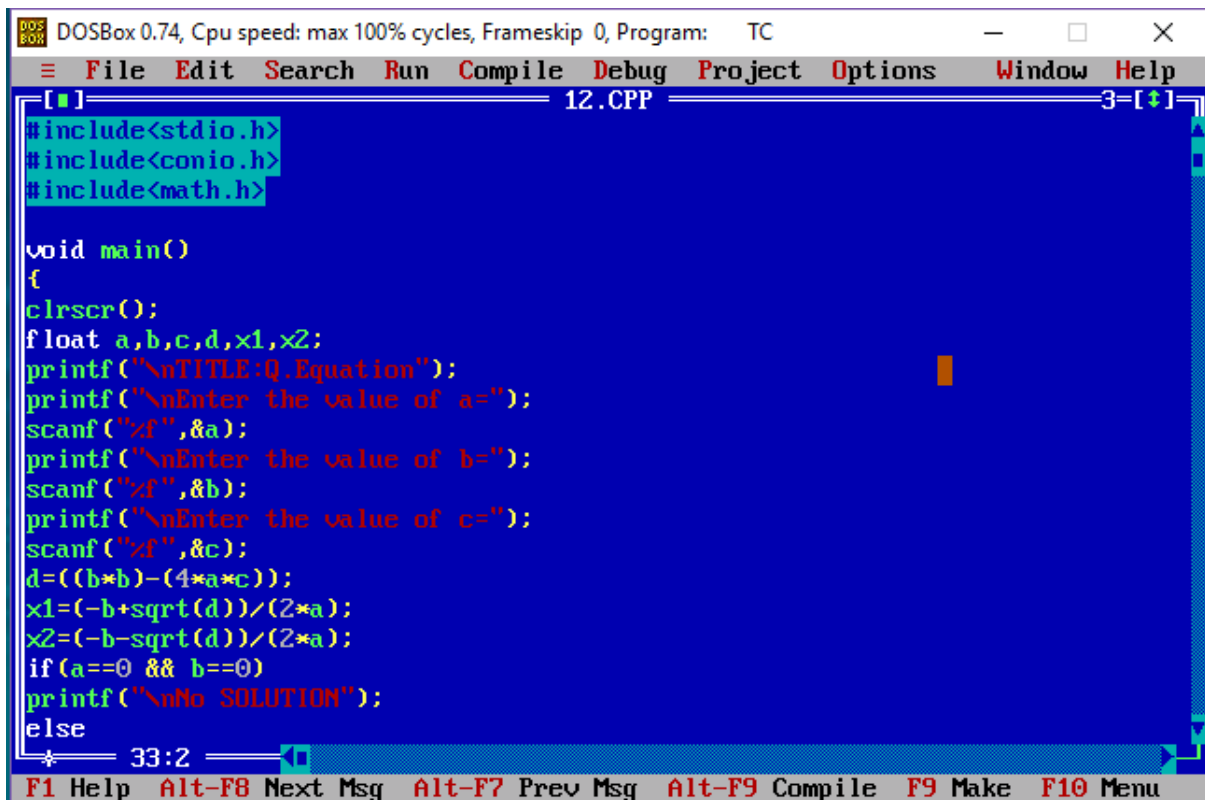


```
x2=(-b-sqrt(d))/(2*a);
if(a==0 && b==0)
printf("\nNo SOLUTION");
else
    if(a==0)
    {
        printf("\nThere is only ONE ROOT EXIST and which is");
        printf("%f",x1);
    }
    else if(d<0)
        printf("\nNO ROOT EXIST");
    else
    {
        printf("\n Two Roots EXIST which are:");
        printf("%f%f",x1,x2);
    }
    getch();

}
```

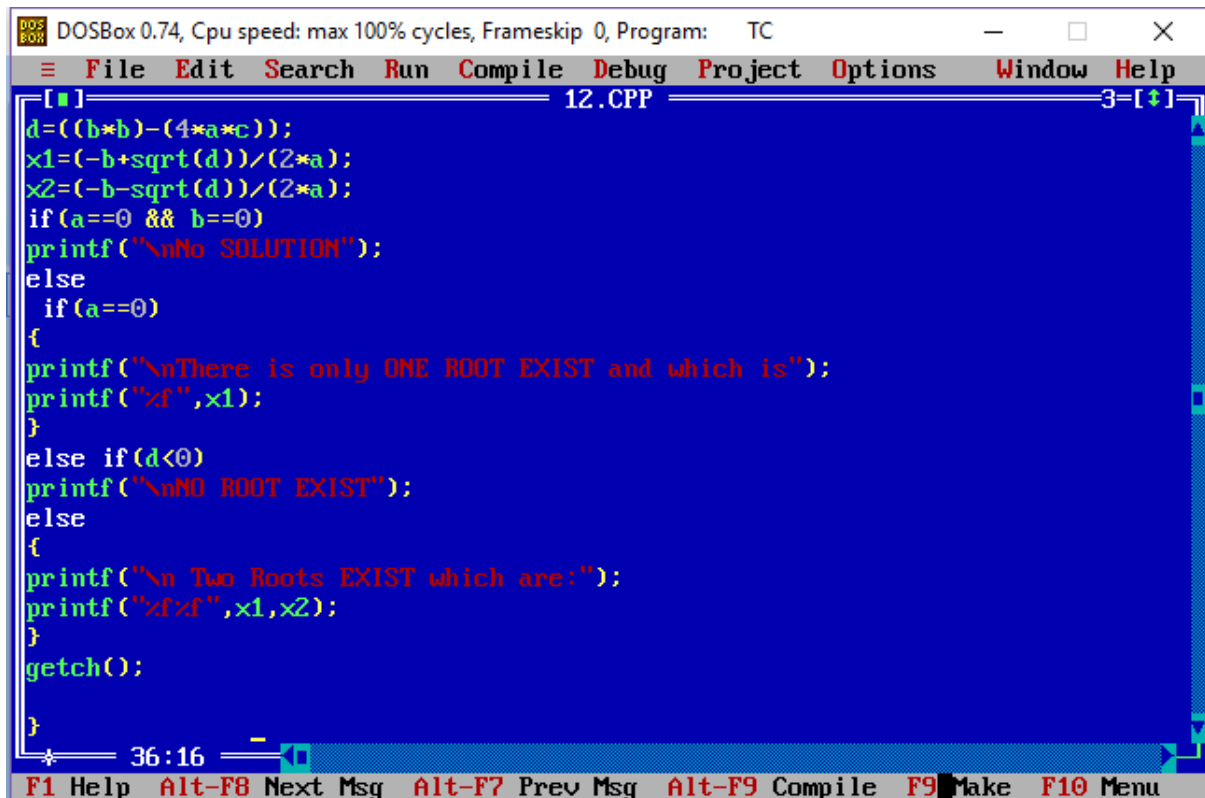
SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
12.CPP
#include<stdio.h>
#include<conio.h>
#include<math.h>

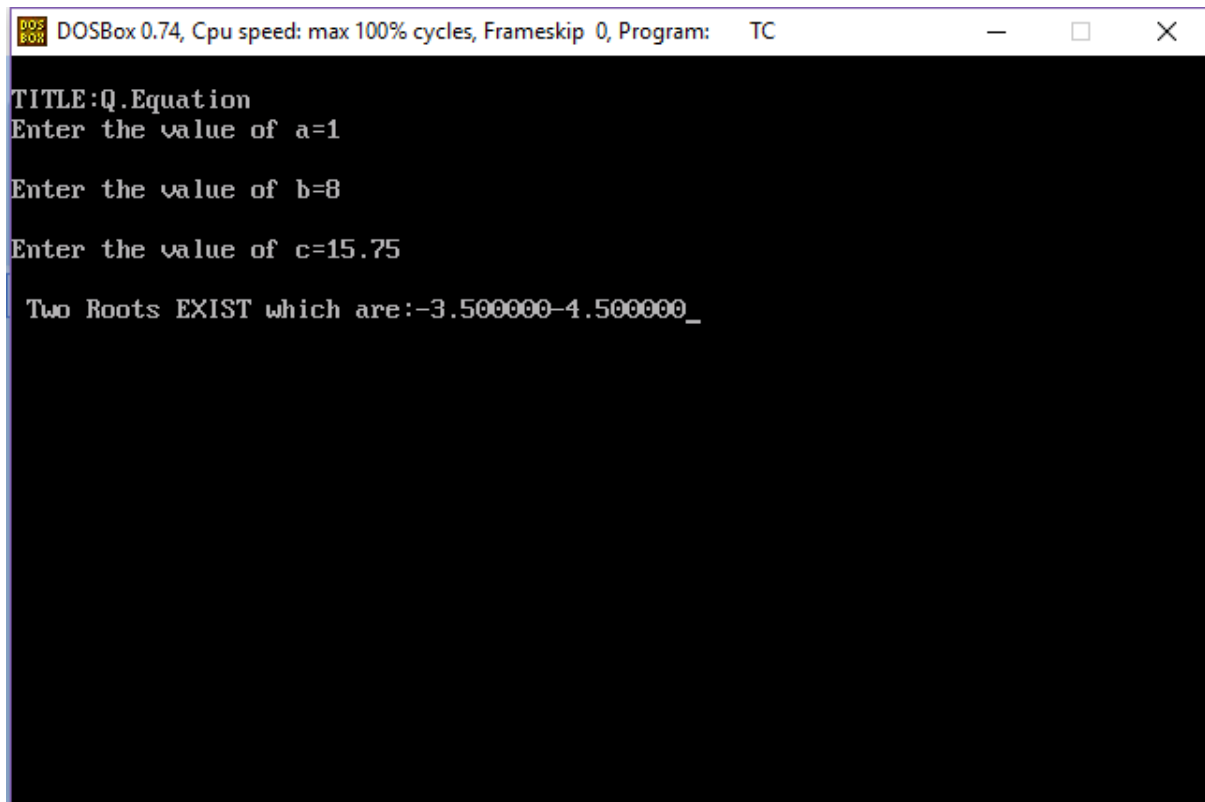
void main()
{
clrscr();
float a,b,c,d,x1,x2;
printf("\nTITLE:Q. Equation");
printf("\nEnter the value of a=");
scanf("%f",&a);
printf("\nEnter the value of b=");
scanf("%f",&b);
printf("\nEnter the value of c=");
scanf("%f",&c);
d=((b*b)-(4*a*c));
x1=(-b+sqrt(d))/(2*a);
x2=(-b-sqrt(d))/(2*a);
if(a==0 && b==0)
printf("\nNo SOLUTION");
else
* 33:2
```



```

d=((b*b)-(4*a*c));
x1=(-b+sqrt(d))/(2*a);
x2=(-b-sqrt(d))/(2*a);
if(a==0 && b==0)
printf("\nNo SOLUTION");
else
if(a==0)
{
printf("\nThere is only ONE ROOT EXIST and which is");
printf("%f",x1);
}
else if(d<0)
printf("\nNO ROOT EXIST");
else
{
printf("\n Two Roots EXIST which are:");
printf("%f%f",x1,x2);
}
getch();
}
* 36:16
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE:Q.Equation
Enter the value of a=1
Enter the value of b=8
Enter the value of c=15.75
Two Roots EXIST which are:-3.500000-4.500000_
```

PROJECT NUMBER : 06

TITLE OF THE PROJECT :

LEAP YEAR

Code -

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
#include<math.h>
```

```
void main()
```

```
{
```

```
clrscr();
```

```
int year;
```

```
printf("\nTITLE:Leap Year");
```

```
printf("\nEnter Year:");
```

```
scanf("%d",&year);
```

```
if(year%4==0 && year/100!=0)
```

```
printf("\nYear %d is a LEAP YEAR",year);
```

```
else
```

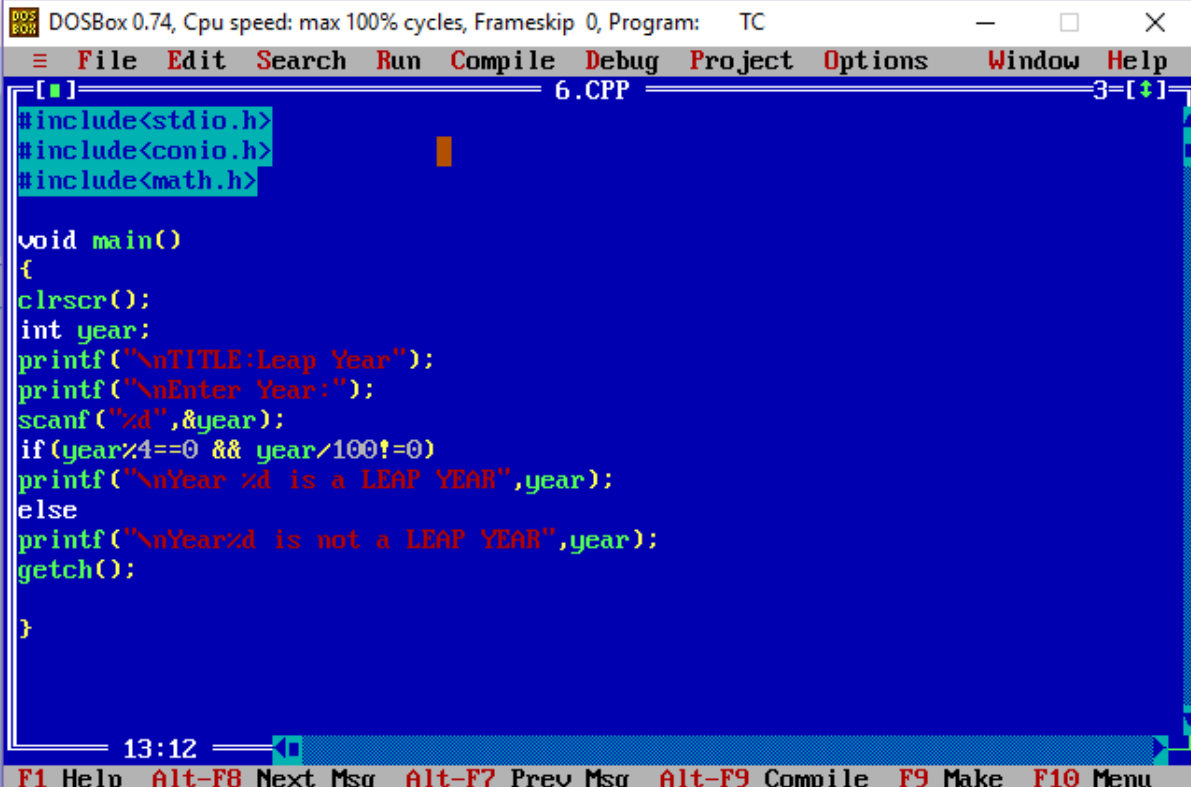
```
printf("\nYear%d is not a LEAP YEAR",year);
```

```
getch();
```

```
}
```

SCREENSHOT-

✓ CODE-



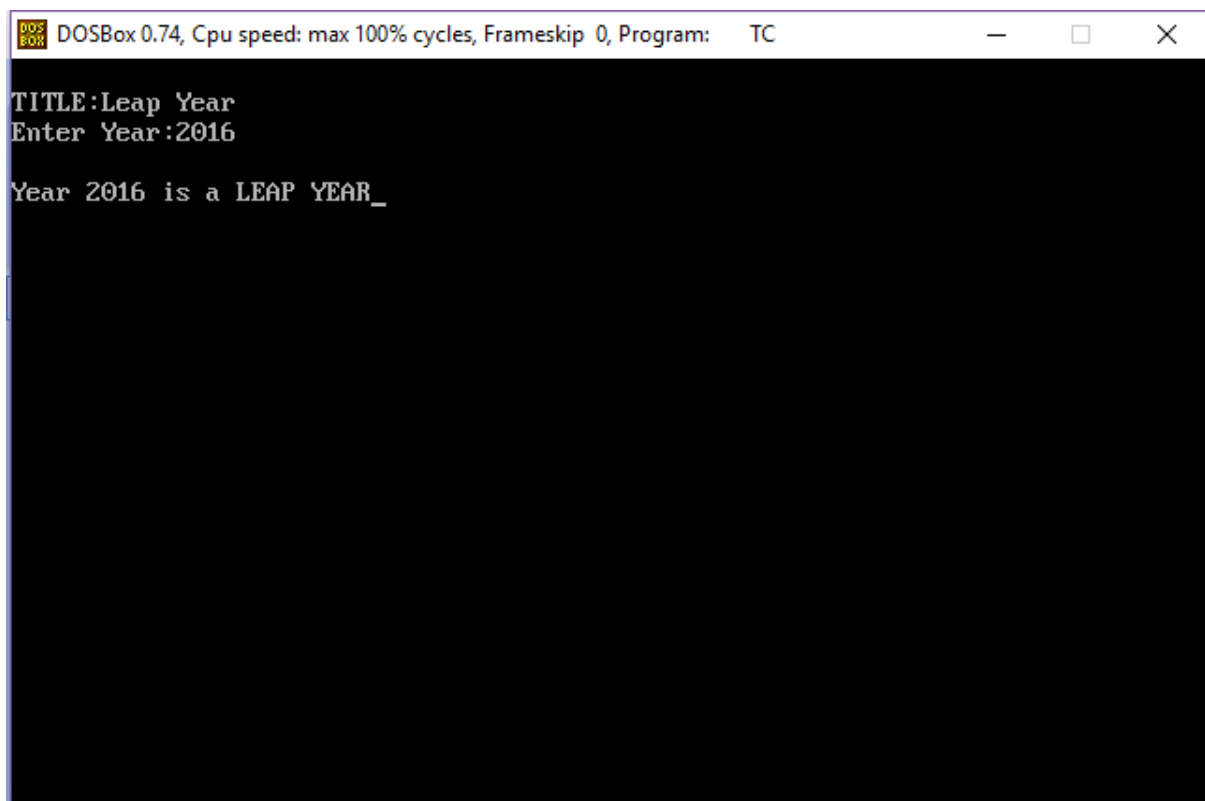
The screenshot shows a DOSBox 0.74 window with a menu bar (File, Edit, Search, Run, Compile, Debug, Project, Options, Window, Help) and a status bar (F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, F10 Menu). The main window displays a C++ program named 6.CPP. The code is as follows:

```
#include<stdio.h>
#include<conio.h>
#include<math.h>

void main()
{
clrscr();
int year;
printf("\nTITLE:Leap Year");
printf("\nEnter Year:");
scanf("%d",&year);
if(year%4==0 && year/100!=0)
printf("\nYear %d is a LEAP YEAR",year);
else
printf("\nYear%d is not a LEAP YEAR",year);
getch();
}
```

The status bar at the bottom shows the time 13:12 and a cursor icon.

✓ OUTPUT-

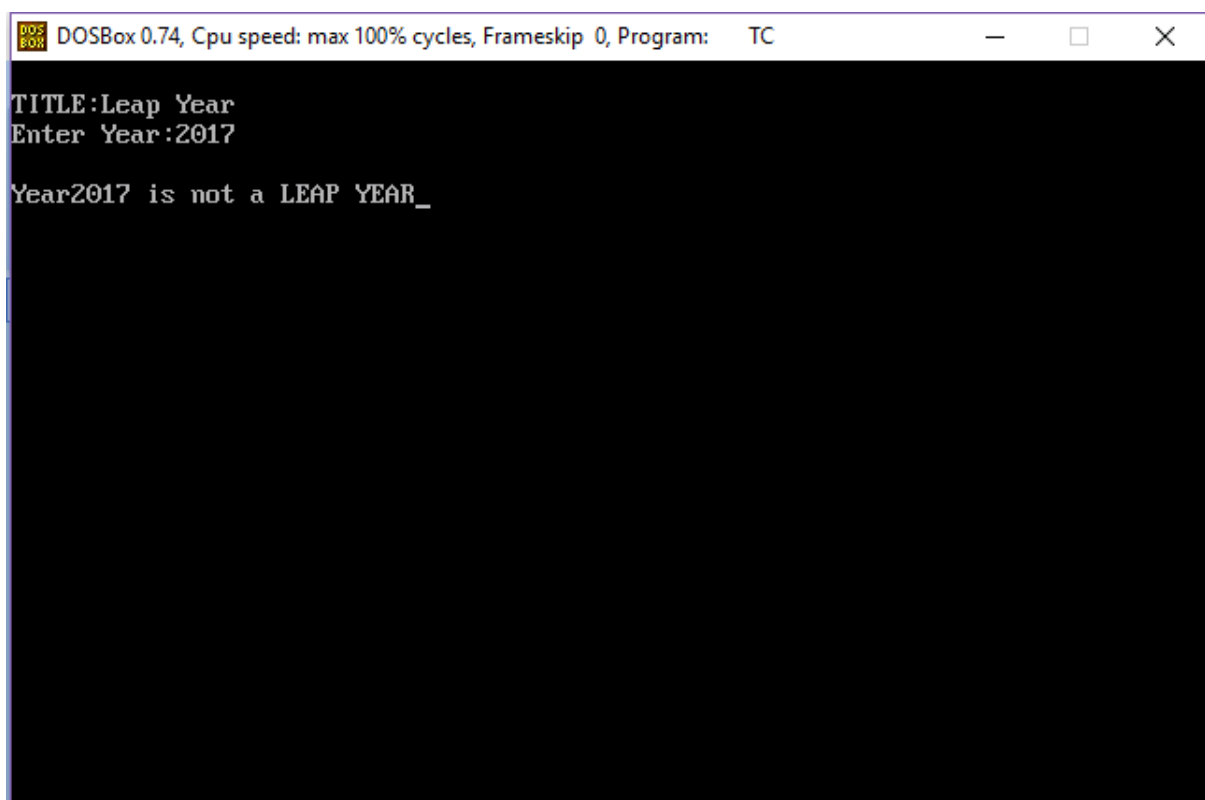


DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

```
TITLE:Leap Year
Enter Year:2016

Year 2016 is a LEAP YEAR_
```

The image shows a DOSBox window with a black background and white text. The title bar at the top reads 'DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC'. The main area contains the following text: 'TITLE:Leap Year', 'Enter Year:2016', and 'Year 2016 is a LEAP YEAR_'. The text is displayed in a monospaced font.



DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

```
TITLE:Leap Year
Enter Year:2017

Year2017 is not a LEAP YEAR_
```

The image shows a DOSBox window with a black background and white text. The title bar at the top reads 'DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC'. The main area contains the following text: 'TITLE:Leap Year', 'Enter Year:2017', and 'Year2017 is not a LEAP YEAR_'. The text is displayed in a monospaced font.

PROJECT NUMBER : 07

TITLE OF THE PROJECT :

Calculator

Code -

```
#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

int choice;

float

num1,num2,add,num4,num5,sub,num6,num7,mul,num8,num9,div;

clrscr();

printf("\nTITLE: Calculator");

printf("\n1.Addition");

printf("\n2.Subtration");

printf("\n3.Multiplication");

printf("\n4.Division");


printf("\nMake Your Selection:");

scanf("%d",&choice);

switch(choice)

{
```

case 1 :

```
printf("\nADDITION");  
printf("\nEnter your first number:");  
scanf("%f",&num1);  
printf("\nEnter your second number:");  
scanf("%f",&num2);  
add=num1+num2;  
printf("\nSum of above two number:%f",add);  
break;
```

case 2:

```
printf("\nSUBTRACTION");  
printf("\nEnter your first number:");  
scanf("%f",&num4);  
printf("\nEnter your second number:");  
scanf("%f",&num5);  
sub=num4-num5;  
printf("\nSubtration of above two number is:%f",sub);  
break;
```

case 3:

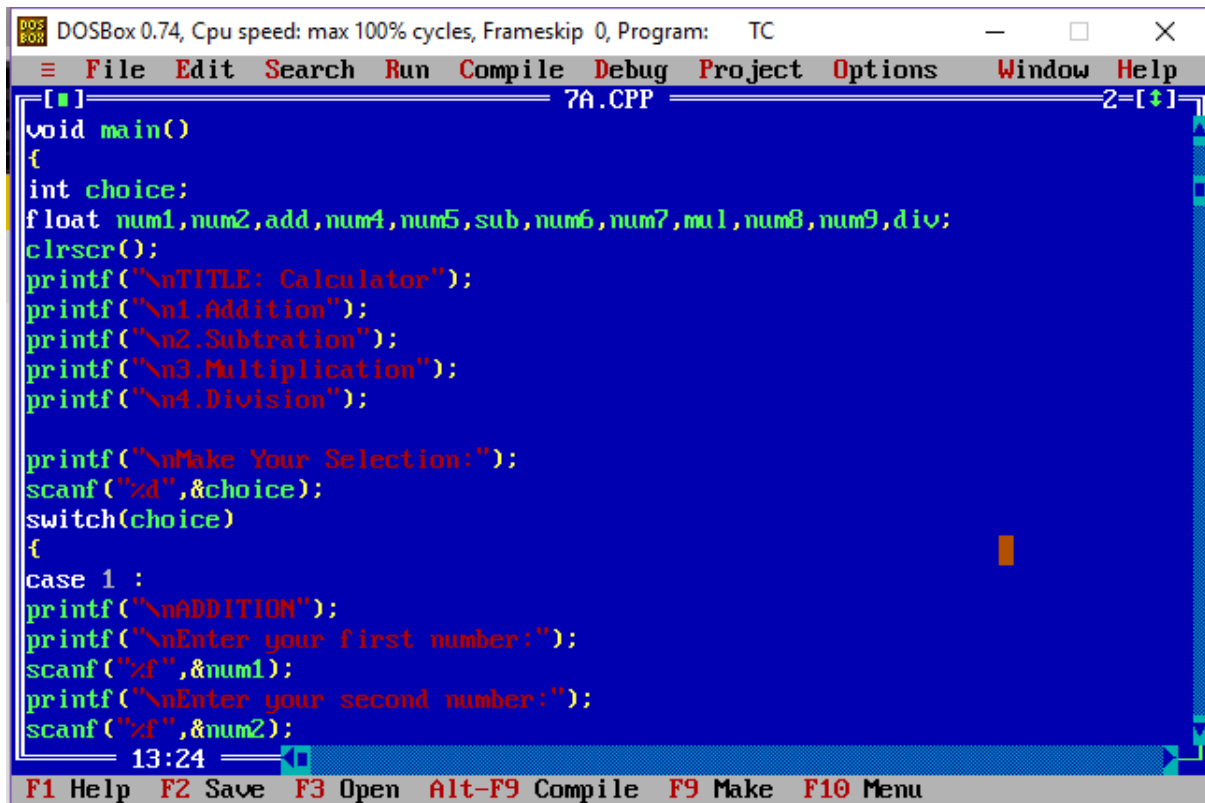
```
printf("\nMULTIPLICATION");  
printf("\nEnter your first number:");  
scanf("%f",&num6);  
printf("\nEnter your second number:");  
scanf("%f",&num7);
```



```
mul=num6*num7;
printf("\nMultiplication of above two number is:%f",mul);
break;
case 4:
printf("\nDIVISION");
printf("\nEnter your first number:");
scanf("%f",&num8);
printf("\nEnter your second number:");
scanf("%f",&num9);
div=(num8)/(num9);
printf("\nDivision of above two number:%f",div);
break;
default:
printf("\nINVALID CHOICE");
break;
}
getch();
}
```

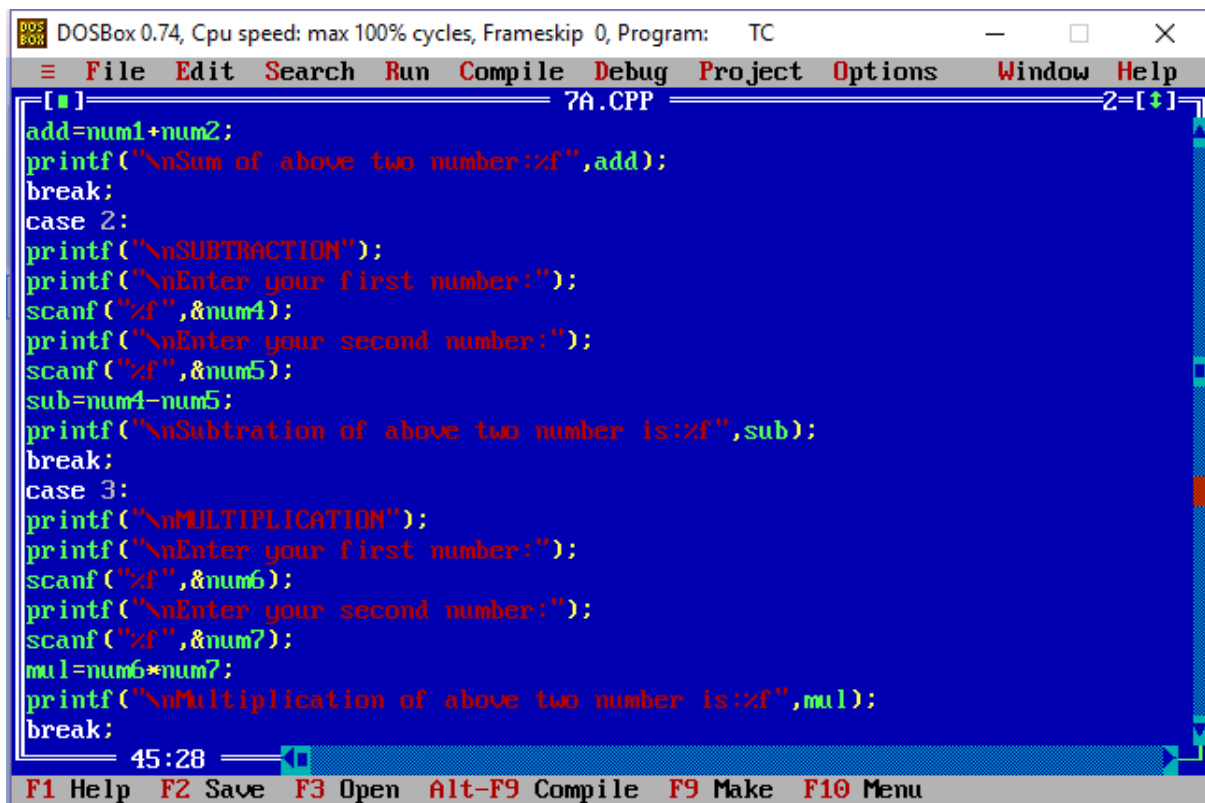
SCREENSHOT-

✓ CODE-

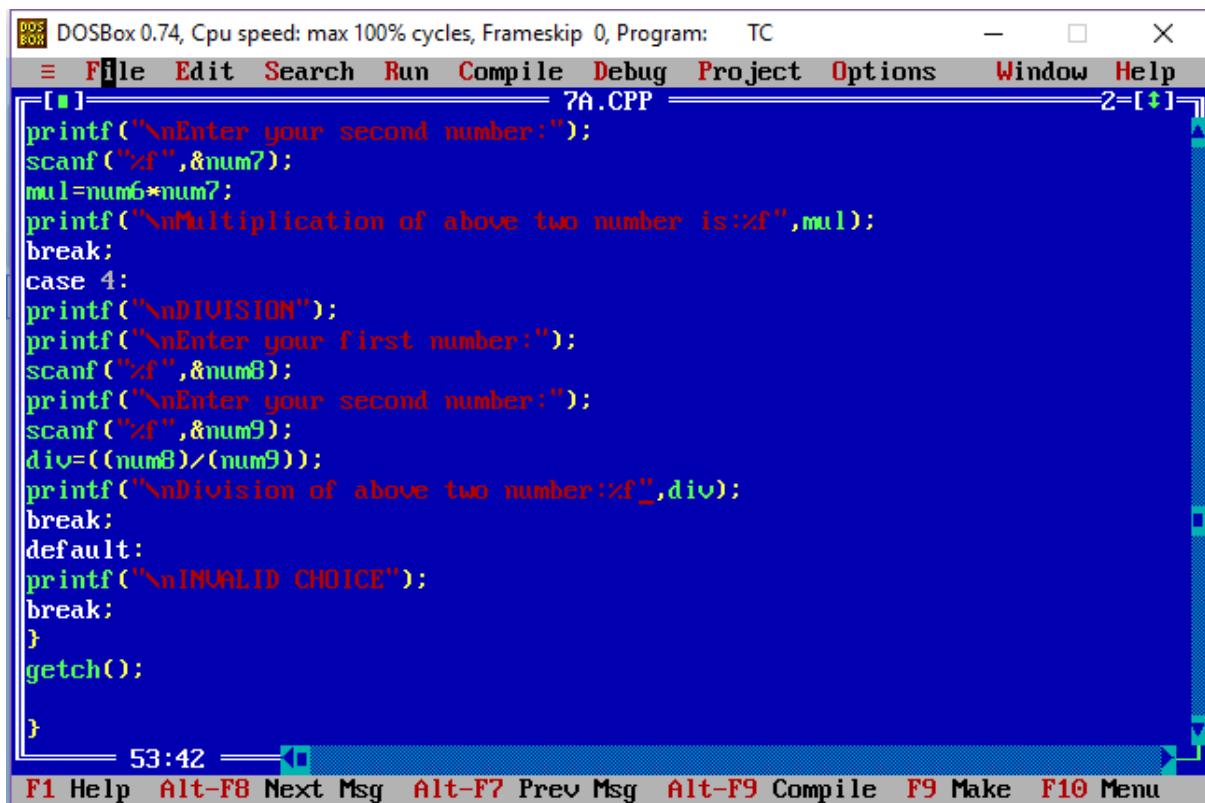


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
7A.CPP
void main()
{
int choice;
float num1,num2,add,num4,num5,sub,num6,num7,mul,num8,num9,div;
clrscr();
printf("\nTITLE: Calculator");
printf("\n1.Addition");
printf("\n2.Subtraction");
printf("\n3.Multiplication");
printf("\n4.Division");

printf("\nMake Your Selection:");
scanf("%d",&choice);
switch(choice)
{
case 1 :
printf("\nADDITION");
printf("\nEnter your first number:");
scanf("%f",&num1);
printf("\nEnter your second number:");
scanf("%f",&num2);
13:24
```



```
add=num1+num2;
printf("\nSum of above two number:%f",add);
break;
case 2:
printf("\nSUBTRACTION");
printf("\nEnter your first number:");
scanf("%f",&num4);
printf("\nEnter your second number:");
scanf("%f",&num5);
sub=num4-num5;
printf("\nSubtraction of above two number is:%f",sub);
break;
case 3:
printf("\nMULTIPLICATION");
printf("\nEnter your first number:");
scanf("%f",&num6);
printf("\nEnter your second number:");
scanf("%f",&num7);
mul=num6*num7;
printf("\nMultiplication of above two number is:%f",mul);
break;
45:28
```



The image shows a DOSBox 0.74 window with a menu bar (File, Edit, Search, Run, Compile, Debug, Project, Options, Window, Help) and a status bar (F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, F10 Menu). The main window displays a C++ program named 7A.CPP. The code uses printf and scanf for input/output, and includes a switch statement for multiplication and division. The status bar shows the current line and column as 53:42.

```
printf("\nEnter your second number:");
scanf("%f",&num7);
mul=num6*num7;
printf("\nMultiplication of above two number is:%f",mul);
break;
case 4:
printf("\nDIVISION");
printf("\nEnter your first number:");
scanf("%f",&num8);
printf("\nEnter your second number:");
scanf("%f",&num9);
div=((num8)/(num9));
printf("\nDivision of above two number:%f",div);
break;
default:
printf("\nINVALID CHOICE");
break;
}
getch();
}
```

53:42

✓ OUTPUT-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE: Calculator
1.Addition
2.Subtration
3.Multiplication
4.Division
Make Your Selection:1

ADDITION
Enter your first number:1

Enter your second number:3

Sum of above two number:4.000000_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE: Calculator
1.Addition
2.Subtration
3.Multiplication
4.Division
Make Your Selection:2

SUBTRACTION
Enter your first number:5

Enter your second number:6

Subtration of above two number is:-1.000000_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE: Calculator
1.Addition
2.Subtration
3.Multiplication
4.Division
Make Your Selection:3

MULTIPLICATION
Enter your first number:3

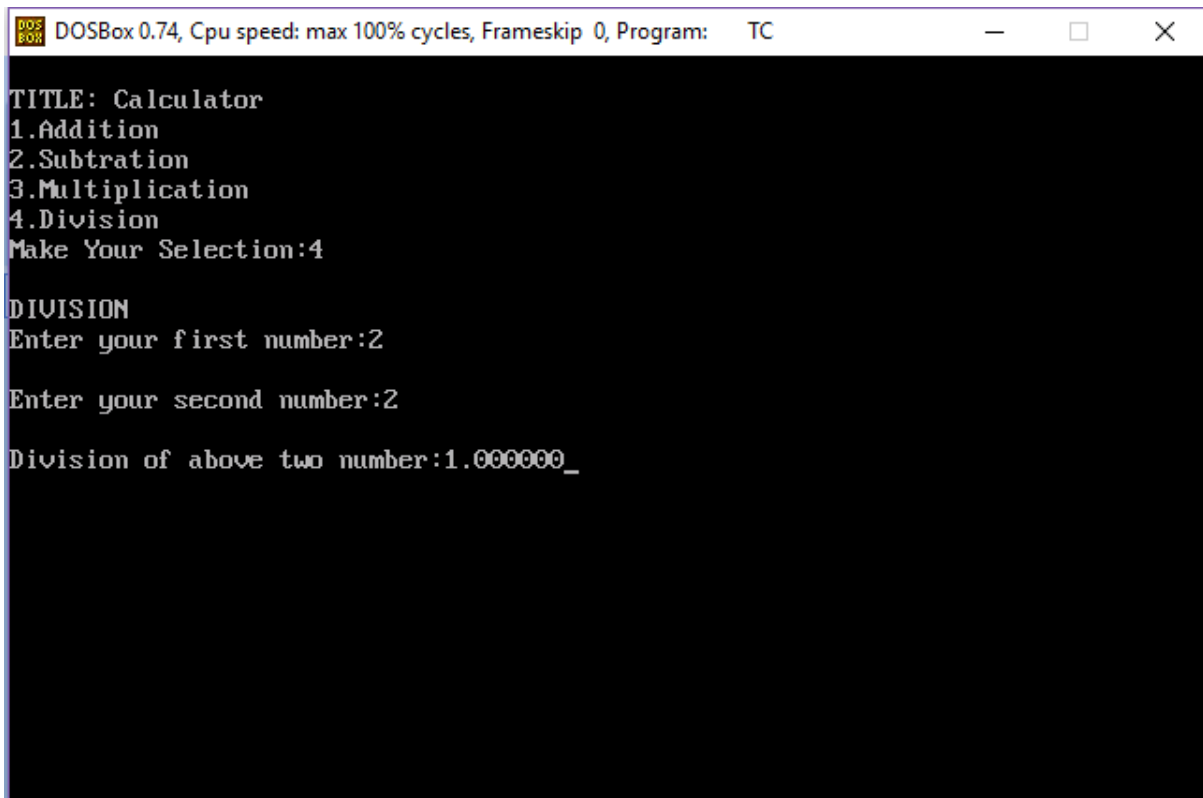
Enter your second number:4

Multiplication of above two number is:12.000000_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE: Calculator
1.Addition
2.Subtration
3.Multiplication
4.Division
Make Your Selection:5

INVALID CHOICE_
```

A screenshot of a DOSBox window. The title bar reads "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC". The window contains a text-based calculator program. The text displayed is: "TITLE: Calculator", "1.Addition", "2.Subtration", "3.Multiplication", "4.Division", "Make Your Selection:4", "DIVISION", "Enter your first number:2", "Enter your second number:2", and "Division of above two number:1.000000_".

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE: Calculator
1.Addition
2.Subtration
3.Multiplication
4.Division
Make Your Selection:4

DIVISION
Enter your first number:2
Enter your second number:2
Division of above two number:1.000000_
```

PROJECT NUMBER : 08

TITLE OF THE PROJECT :

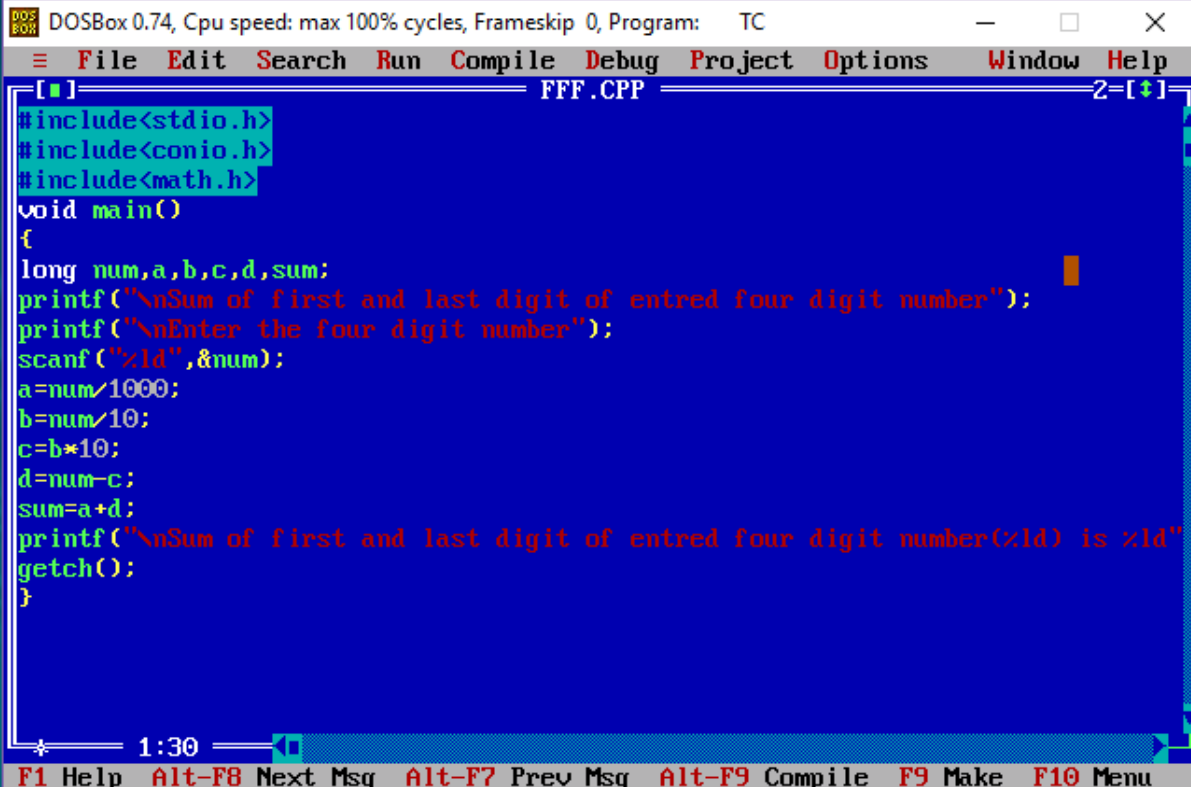
Sum of first and last digit of 4 Digit number

Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
long num,a,b,c,d,sum;
printf("\nSum of first and last digit of entered four digit number");
printf("\nEnter the four digit number");
scanf("%ld",&num);
a=num/1000;
b=num/10;
c=b*10;
d=num-c;
sum=a+d;
printf("\nSum of first and last digit of entered four digit number(%ld)
is %ld",num,sum);
getch();
}
```

SCREENSHOT-

✓ CODE-

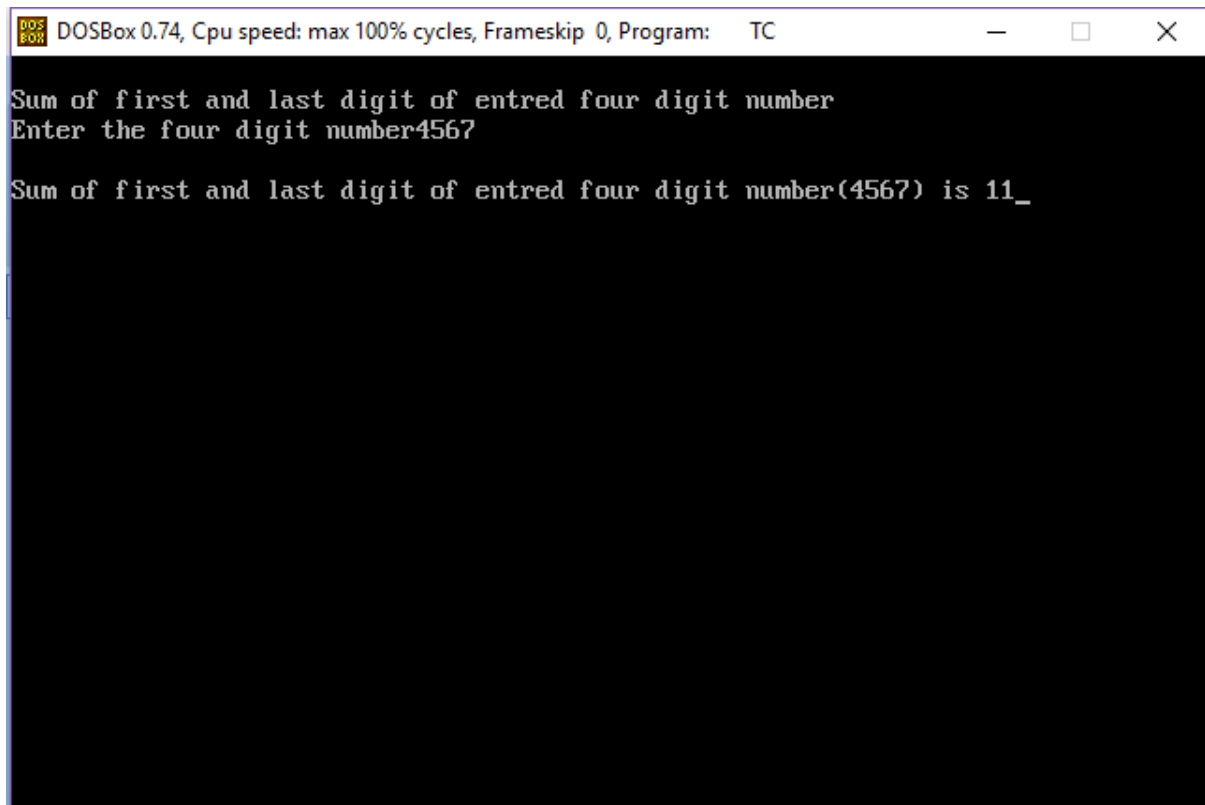


The screenshot shows a DOSBox 0.74 window with a menu bar (File, Edit, Search, Run, Compile, Debug, Project, Options, Window, Help) and a status bar (F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, F10 Menu). The program being run is FFF.CPP. The code is as follows:

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
    long num,a,b,c,d,sum;
    printf("\nSum of first and last digit of entered four digit number");
    printf("\nEnter the four digit number");
    scanf ("%ld",&num);
    a=num/1000;
    b=num/10;
    c=b*10;
    d=num-c;
    sum=a+d;
    printf("\nSum of first and last digit of entered four digit number(%ld) is %ld",num,sum);
    getch();
}
```

The status bar at the bottom shows the time 1:30 and various function key shortcuts.

✓ OUTPUT-



The screenshot shows a DOSBox window titled "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC". The window contains a black terminal area with white text. The text displays the output of a C program that calculates the sum of the first and last digits of a four-digit number. The program prompts the user to "Enter the four digit number" and the user has entered "4567". The output shows "Sum of first and last digit of entred four digit number(4567) is 11_".

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
Sum of first and last digit of entred four digit number
Enter the four digit number4567
Sum of first and last digit of entred four digit number(4567) is 11_
```

PROJECT NUMBER : 09

TITLE OF THE PROJECT :

$\sin^2(x) + \cos^2(x)$ is {= or !=} to 1

Code -

```
#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

long angle,c;

clrscr();

printf("\nchecker of  $\sin^2(x) + \cos^2(x)$  is one or not for entered
value of angle");

printf("\nEnter the value of angle(in degree)");

scanf("%ld",&angle);

c=(sin(angle))*(sin(angle))+(cos(angle))*(cos(angle));

{

if(c==1)

printf("\n $\sin^2(x) + \cos^2(x) = 1$ ");

else

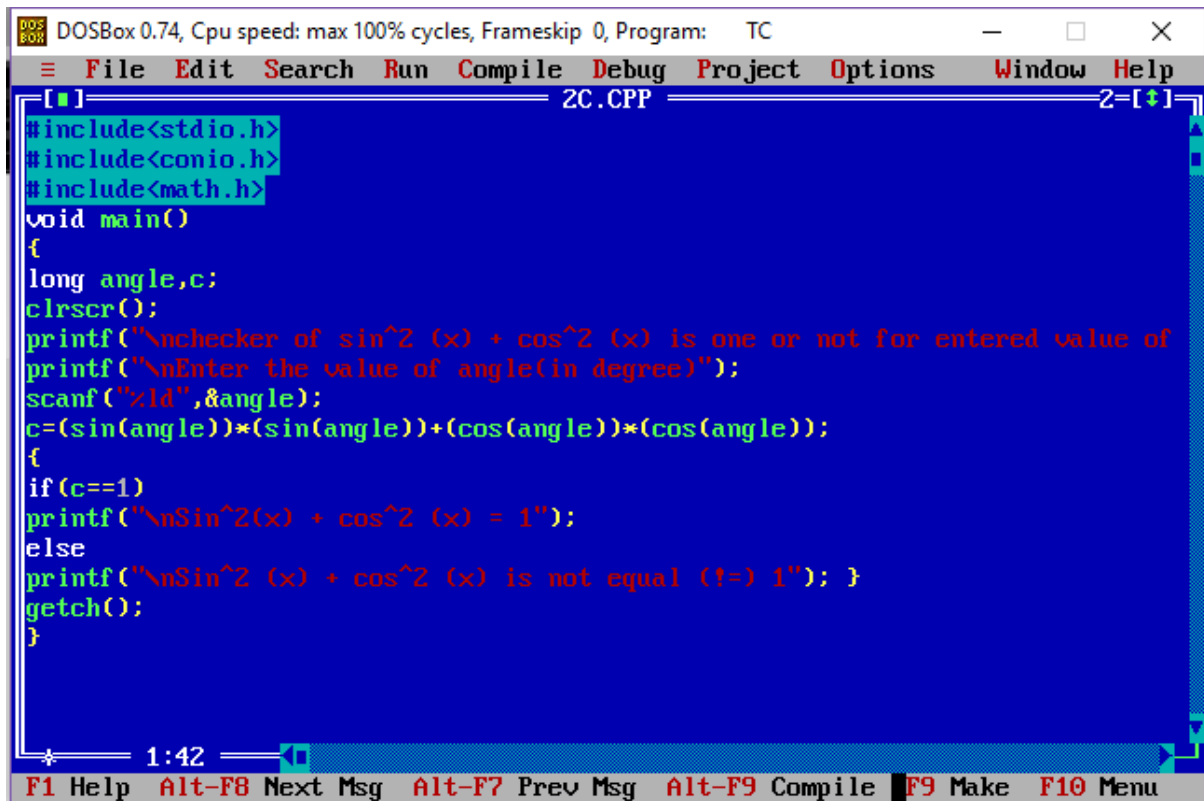
printf("\n $\sin^2(x) + \cos^2(x)$  is not equal (!=) 1"); }

getch();

}
```

SCREENSHOT-

✓ CODE-

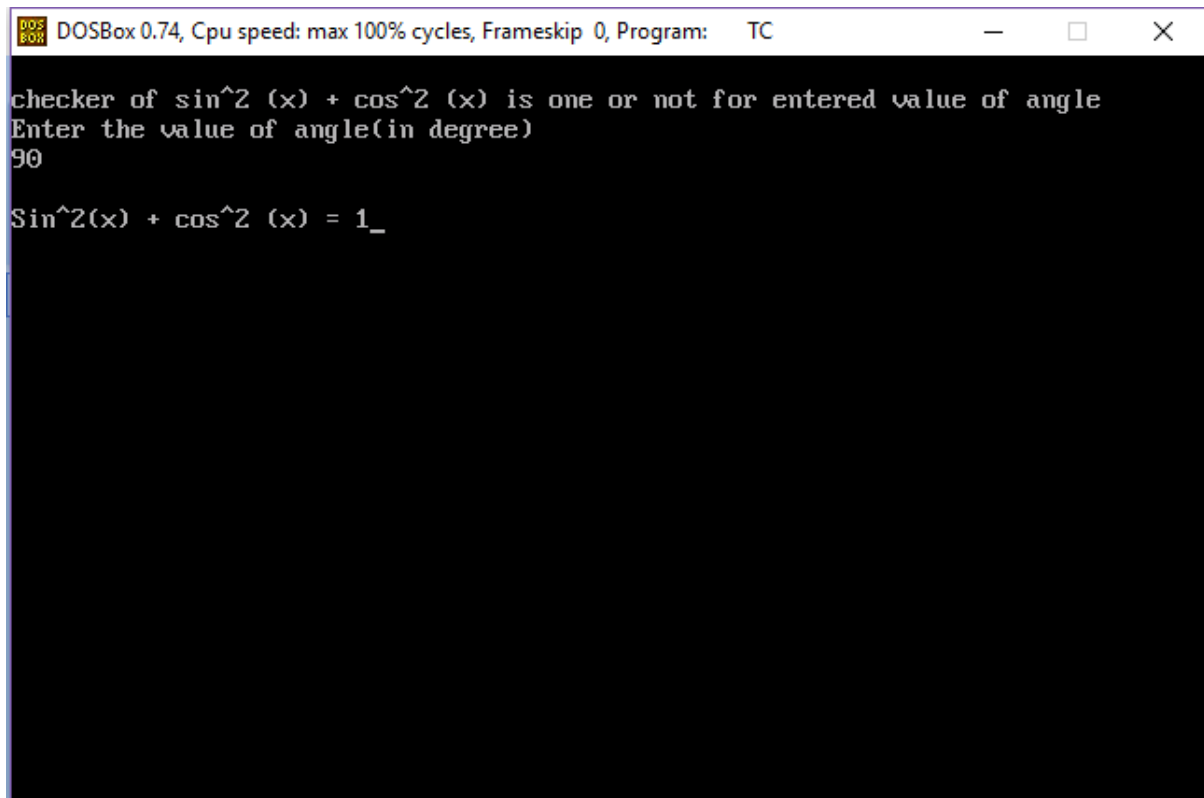


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
2C.CPP
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
    long angle,c;
    clrscr();
    printf("\nchecker of sin^2 (x) + cos^2 (x) is one or not for entered value of\n");
    printf("\nEnter the value of angle(in degree)");
    scanf("%ld",&angle);
    c=(sin(angle))*(sin(angle))+(cos(angle))*(cos(angle));
    {
        if(c==1)
            printf("\nSin^2(x) + cos^2 (x) = 1");
        else
            printf("\nSin^2 (x) + cos^2 (x) is not equal (!=) 1"); }
    getch();
}
```

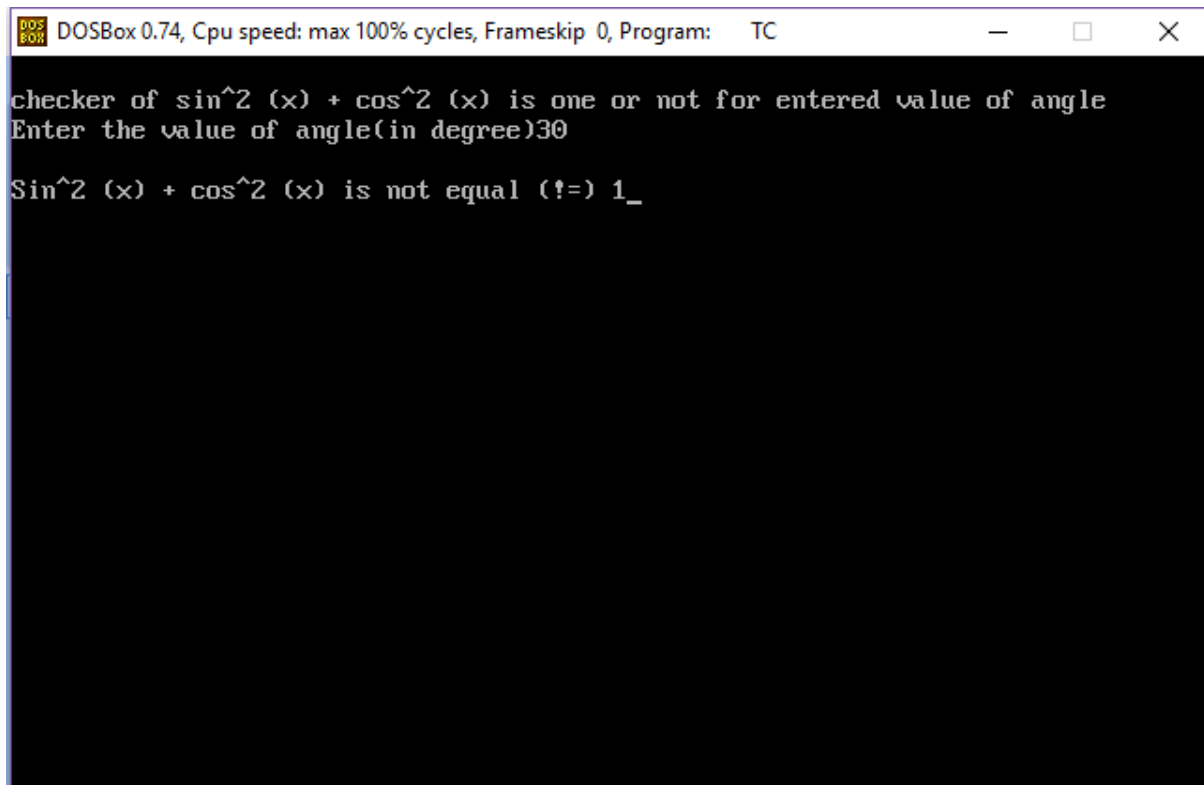
1:42

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

✓ OUTPUT-



```
DOS BOX DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
checker of sin^2 (x) + cos^2 (x) is one or not for entered value of angle
Enter the value of angle(in degree)
90
Sin^2(x) + cos^2 (x) = 1_
```



```
DOS BOX DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
checker of sin^2 (x) + cos^2 (x) is one or not for entered value of angle
Enter the value of angle(in degree)30
Sin^2 (x) + cos^2 (x) is not equal (!=) 1_
```

PROJECT NUMBER : **10**

TITLE OF THE PROJECT :

Younger among 3 Persons

Code -

```
#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

clrscr();

int age1,age2,age3;

printf("\nTITLE : Younger among all");

printf("\nEnter 1st person age : ");

scanf("%d",&age1);

printf("\nEnter 2nd person age : ");

scanf("%d",&age2);

printf("\nEnter the 3rd person age : ");

scanf("%d",&age3);

if(age1>age2 && age2>age3)

printf("\n3rd Person whose age is %d is younger among them",age3);

else

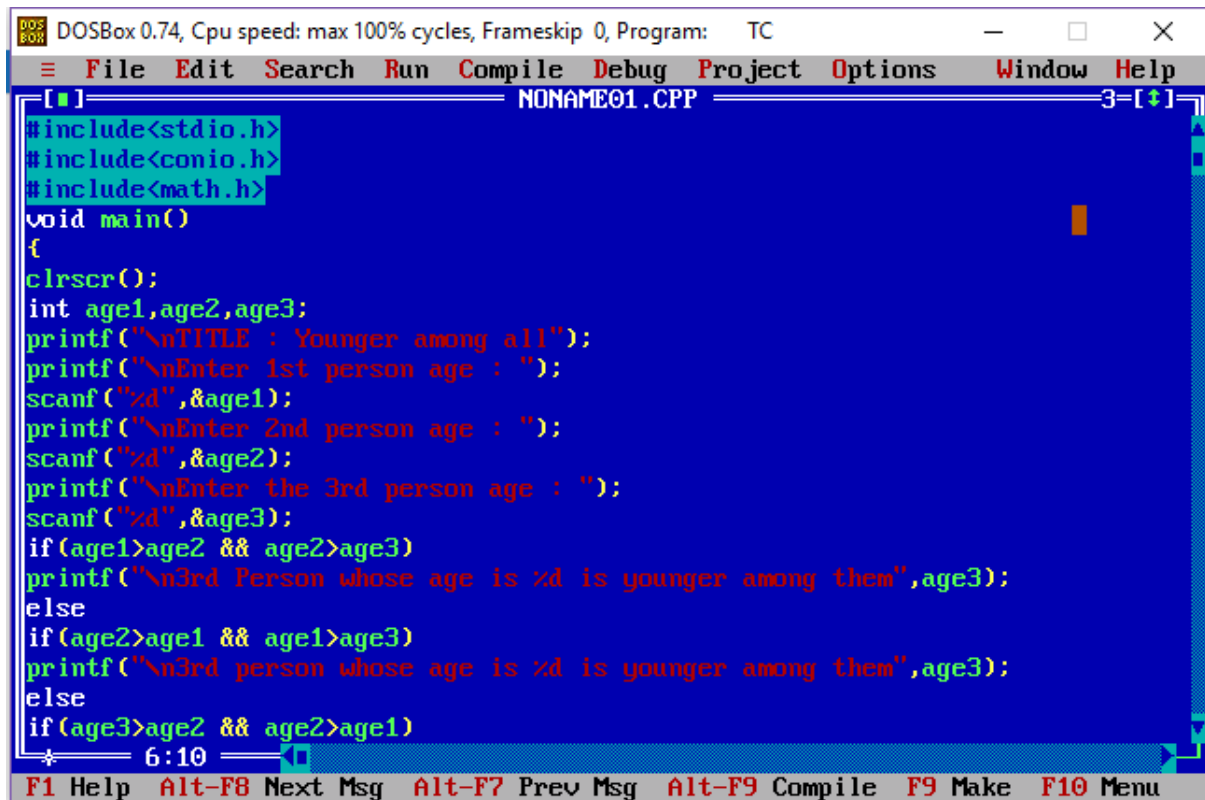
if(age2>age1 && age1>age3)

printf("\n3rd person whose age is %d is younger among them",age3);
```

```
else
if(age3>age2 && age2>age1)
printf("\n1st person whose age is %d is younger among them",age1);
else
if(age2>age3 && age3>age1)
printf("\n1st person whose age is %d is younger among them",age1);
else
printf("\n2nd person whose age is %dis younger among them",age2);
getch();
}
```

SCREENSHOT-

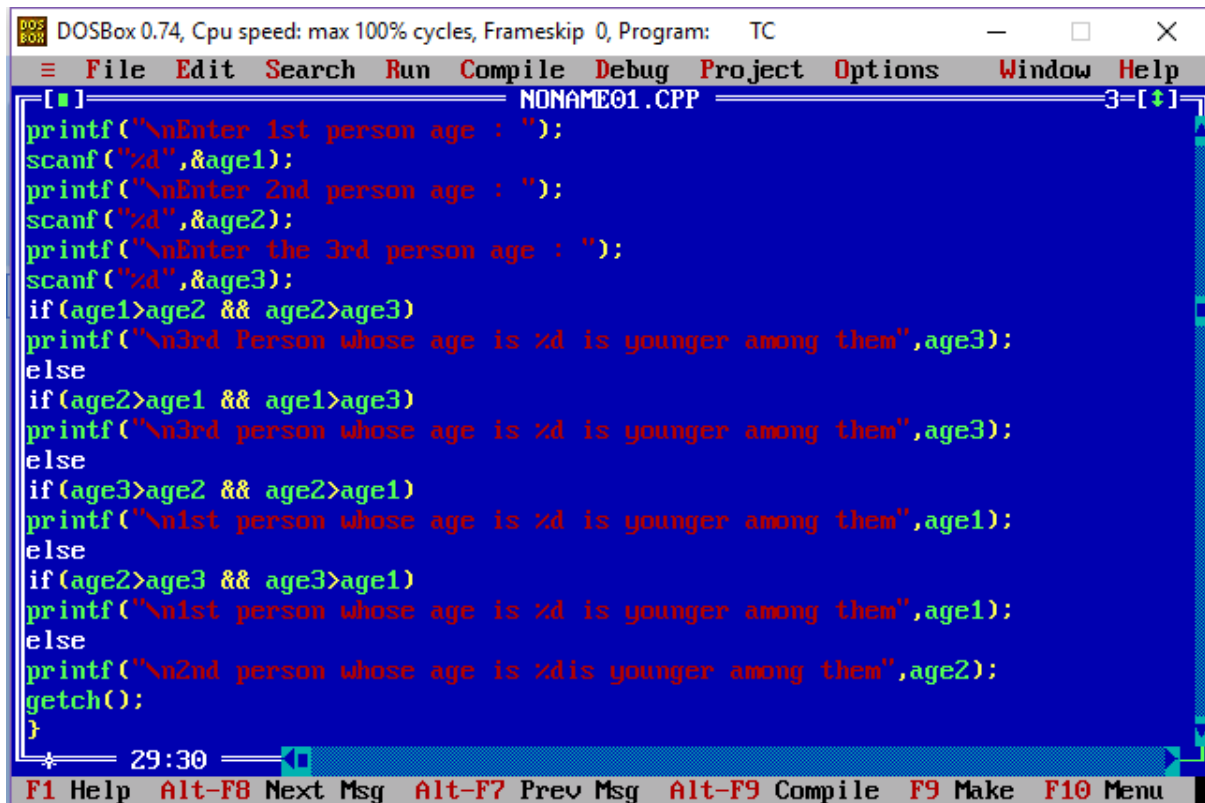
✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] NONAME01.CPP 3-[+]
```

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
clrscr();
int age1,age2,age3;
printf("\nTITLE : Younger among all");
printf("\nEnter 1st person age : ");
scanf("%d",&age1);
printf("\nEnter 2nd person age : ");
scanf("%d",&age2);
printf("\nEnter the 3rd person age : ");
scanf("%d",&age3);
if(age1>age2 && age2>age3)
printf("\n3rd Person whose age is %d is younger among them",age3);
else
if(age2>age1 && age1>age3)
printf("\n3rd person whose age is %d is younger among them",age3);
else
if(age3>age2 && age2>age1)
* 6:10 *
```

```
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] NONAME01.CPP 3-[+]
```

```
printf("\nEnter 1st person age : ");
scanf("%d",&age1);
printf("\nEnter 2nd person age : ");
scanf("%d",&age2);
printf("\nEnter the 3rd person age : ");
scanf("%d",&age3);
if(age1>age2 && age2>age3)
printf("\n3rd Person whose age is %d is younger among them",age3);
else
if(age2>age1 && age1>age3)
printf("\n3rd person whose age is %d is younger among them",age3);
else
if(age3>age2 && age2>age1)
printf("\n1st person whose age is %d is younger among them",age1);
else
if(age2>age3 && age3>age1)
printf("\n1st person whose age is %d is younger among them",age1);
else
printf("\n2nd person whose age is %d is younger among them",age2);
getch();
}
* 29:30 *
```

```
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

✓ OUTPUT-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : Younger among all
Enter 1st person age : 34
Enter 2nd person age : 5
Enter the 3rd person age : 7
2nd person whose age is 5 is younger among them_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : Younger among all
Enter 1st person age : 56
Enter 2nd person age : 78
Enter the 3rd person age : 99
1st person whose age is 56 is younger among them
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : Younger among all
Enter 1st person age : 34
Enter 2nd person age : 56
Enter the 3rd person age : 20
3rd person whose age is 20 is younger among them
```


PROJECT NUMBER : 11

TITLE OF THE PROJECT :

Triangle can be formed or not

Code-

```
#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

clrscr();

long angle1,angle2,angle3,s;

printf("\nTITLE : Triange can be formed or not");

printf("\nEnter the value of 1st angle : ");

scanf("%ld",&angle1);

printf("\nEnter the value 2nd angle of the triangle : ");

scanf("%ld",&angle2);

printf("\nEnter the value of 5rd angle of the triangle : ");

scanf("%ld",&angle3);

s=(angle1+angle3+angle3);

if(s==180)

printf("\nFor the given angle triangle can be formed");

else

{
```

```

printf("\nFrom the given data triangle cannot be formed");

printf("\n\nR : BY ANGLE SUM PROPERTY, SUM OF ALL ANGLE OF A
TRIANGLE SHOULD BE EQUAL TO 180 DEGREE");

}

getch();

}

```

SCREENSHOT-

✓ CODE-

The screenshot shows a DOSBox 0.74 window with the title bar 'DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC'. The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The program being run is 'NONAME00.CPP'. The code in the window is as follows:

```

void main()
{
clrscr();
long angle1,angle2,angle3,s;
printf("\nTITLE : Triange can be formed or not");
printf("\nEnter the value of 1st angle : ");
scanf("%ld",&angle1);
printf("\nEnter the value 2nd angle of the triangle : ");
scanf("%ld",&angle2);
printf("\nEnter the value of 5rd angle of the triangle : ");
scanf("%ld",&angle3);
s=(angle1+angle3+angle3);
if(s==180)
printf("\nFor the given angle triangle can be formed");
else
{
printf("\nFrom the given data triangle cannot be formed");
printf("\n\nR : BY ANGLE SUM PROPERTY, SUM OF ALL ANGLE OF A TRIANGLE SHOULD
}
getch();
}

```

The status bar at the bottom shows the time '21:13' and function key shortcuts: F1 Help, F2 Save, F3 Open, Alt-F9 Compile, F9 Make, and F10 Menu.

✓ OUTPUT-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : Triange can be formed or not
Enter the value of 1st angle : 29

Enter the value 2nd angle of the triangle : 90

Enter the value of 5rd angle of the triangle : 9

From the given data triangle cannot be formed

R : BY ANGLE SUM PROPERTY, SUM OF ALL ANGLE OF A TRIANGLE SHOULD BE EQUAL TO 180 DEGREE
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : Triange can be formed or not
Enter the value of 1st angle : 90

Enter the value 2nd angle of the triangle : 45

Enter the value of 5rd angle of the triangle : 45

For the given angle triangle can be formed_
```

PROJECT NUMBER : 12

TITLE OF THE PROJECT :

Grace Marks (Switch case)

Code -

```
#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

clrscr();

int c,sf;

printf("\nTITLE : GRACE MARKS");

printf("\nEnter the class obtained : ");

scanf("%d",&c);

printf("\nEnter the number of subject in which you are failed : ");

scanf("%d",&sf);

switch(c)

{

case 1:

{

if(sf>3)

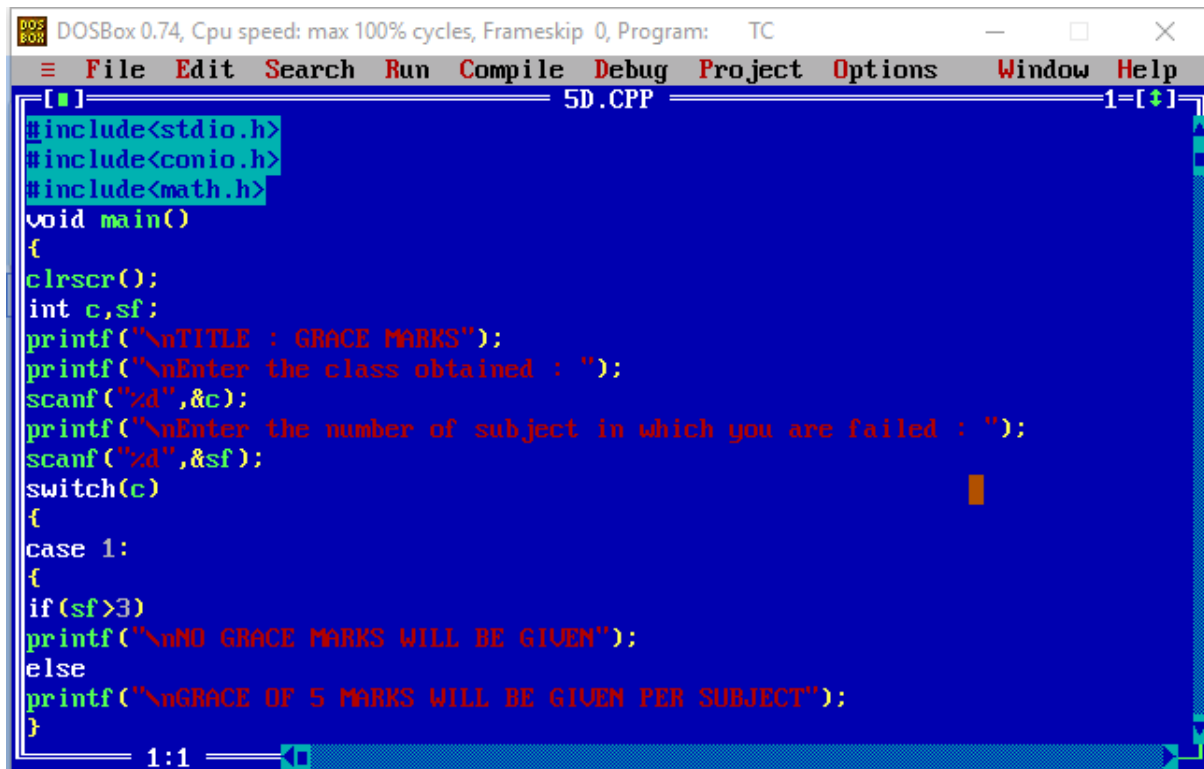
printf("\nNO GRACE MARKS WILL BE GIVEN");

else
```

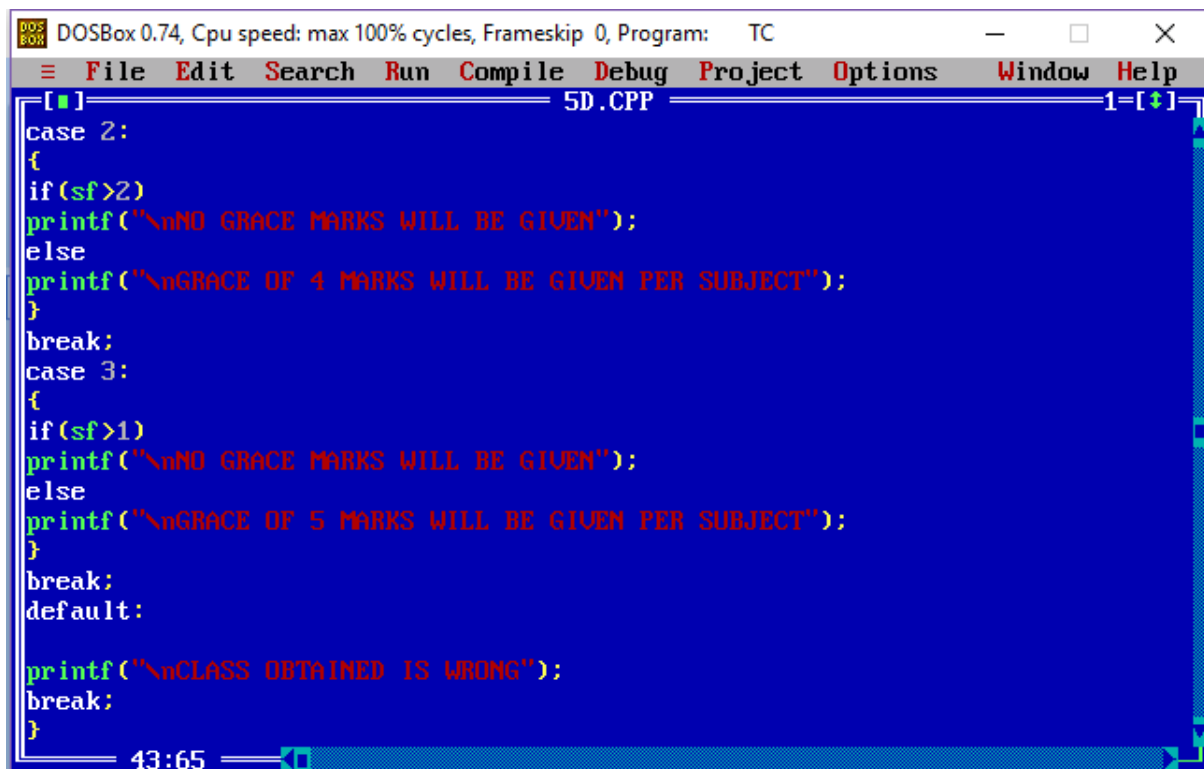
```
printf("\nGRACE OF 5 MARKS WILL BE GIVEN PER SUBJECT");  
}  
break;  
case 2:  
{  
if(sf>2)  
printf("\nNO GRACE MARKS WILL BE GIVEN");  
else  
printf("\nGRACE OF 4 MARKS WILL BE GIVEN PER SUBJECT");}  
break;  
case 3:  
{  
if(sf>1)  
printf("\nNO GRACE MARKS WILL BE GIVEN");  
else  
printf("\nGRACE OF 5 MARKS WILL BE GIVEN PER SUBJECT");  
}  
break;  
default:  
printf("\nCLASS OBTAINED IS WRONG");  
break;}  
getch();  
}
```

SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
5D.CPP
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
clrscr();
int c,sf;
printf("\nTITLE : GRACE MARKS");
printf("\nEnter the class obtained : ");
scanf("%d",&c);
printf("\nEnter the number of subject in which you are failed : ");
scanf("%d",&sf);
switch(c)
{
case 1:
{
if(sf>3)
printf("\nNO GRACE MARKS WILL BE GIVEN");
else
printf("\nGRACE OF 5 MARKS WILL BE GIVEN PER SUBJECT");
}
```



```
case 2:
{
if(sf>2)
printf("\nNO GRACE MARKS WILL BE GIVEN");
else
printf("\nGRACE OF 4 MARKS WILL BE GIVEN PER SUBJECT");
}
break;
case 3:
{
if(sf>1)
printf("\nNO GRACE MARKS WILL BE GIVEN");
else
printf("\nGRACE OF 5 MARKS WILL BE GIVEN PER SUBJECT");
}
break;
default:
printf("\nCLASS OBTAINED IS WRONG");
break;
}
```

✓ OUTPUT-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : GRACE MARKS
Enter the class obtained : 1

Enter the number of subject in which you are failed : 2

GRACE OF 5 MARKS WILL BE GIVEN PER SUBJECT_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : GRACE MARKS
Enter the class obtained : 2

Enter the number of subject in which you are failed : 5

NO GRACE MARKS WILL BE GIVEN_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : GRACE MARKS
Enter the class obtained : 3

Enter the number of subject in which you are failed : 1

GRACE OF 5 MARKS WILL BE GIVEN PER SUBJECT
```

QUESTION OF- LET US C {Chapter-5 Question(D)}

PROJECT NUMBER : 13

TITLE OF THE PROJECT :

Entered 3 points lies on straight line or not

Code -

```
#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

clrscr();

long x1,y1,x2,y2,x3,y3,d;

printf("\nEntered 3 points lies on a stright line or not");

printf("\nEnter the value of X1 Co-ordinate of first point : ");

scanf("%ld",&x1);

printf("\nEnter the value of Y1 Co-ordinate of first point : ");

scanf("%ld",&y1);

printf("\nEnter the value of X2 Co-ordinate of second point : ");

scanf("%ld",&x2);

printf("\nEnter the value of Y2 Co-ordinate of second point : ");

scanf("%ld",&y2);

printf("\nEnter the value of X3 Co-ordinate of third point : ");

scanf("%ld",&x3);

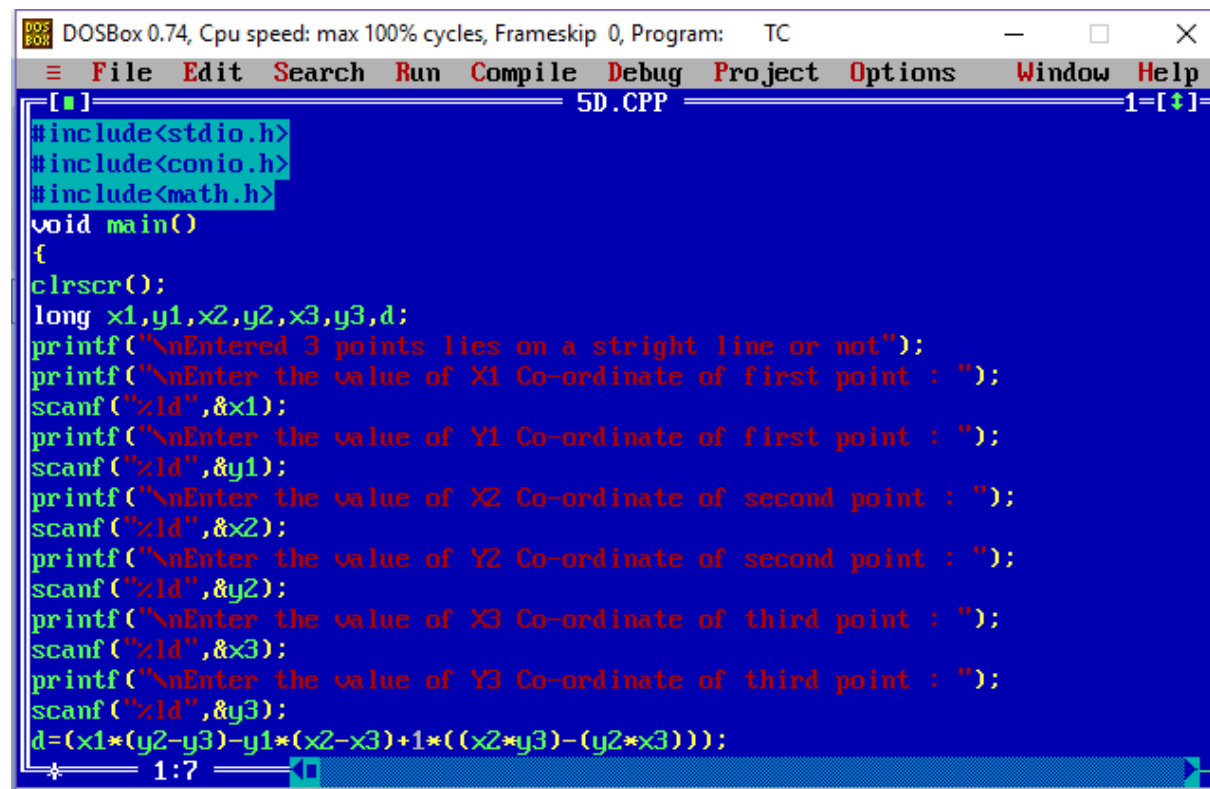
printf("\nEnter the value of Y3 Co-ordinate of third point : ");
```



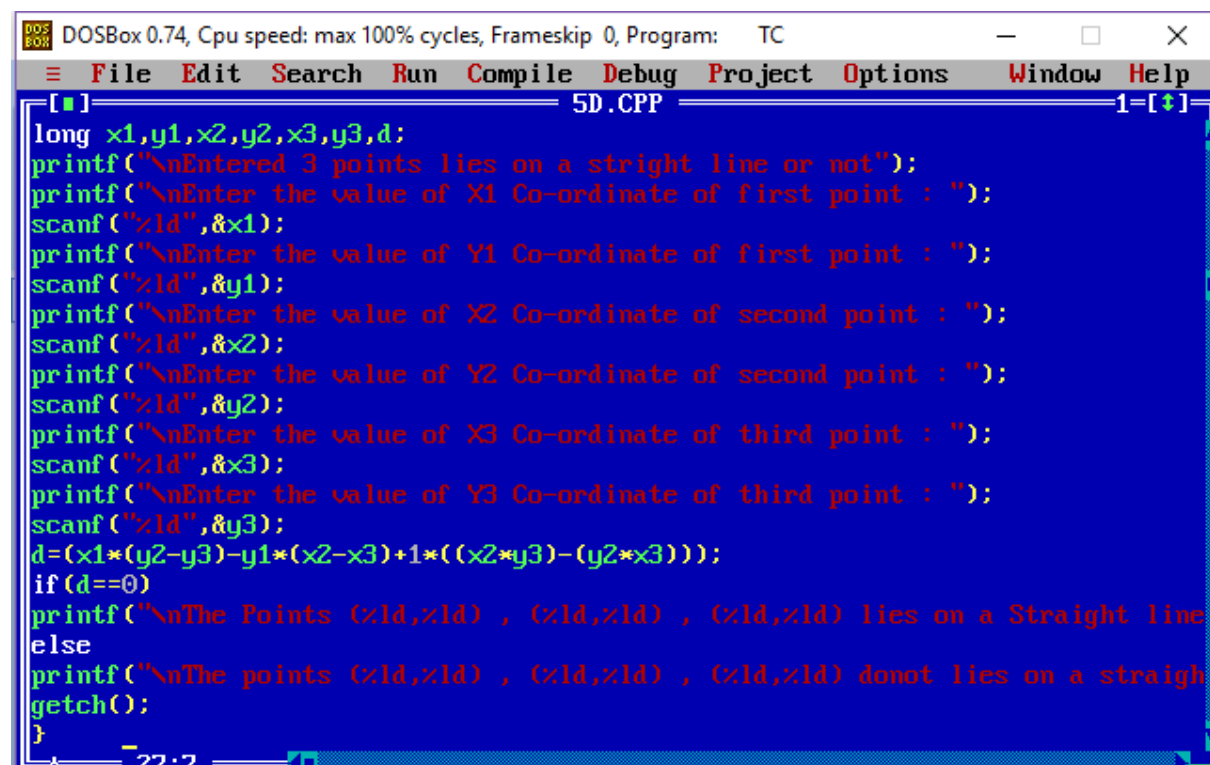
```
scanf("%ld",&y3);  
d=(x1*(y2-y3)-y1*(x2-x3)+1*((x2*y3)-(y2*x3)));  
if(d==0)  
printf("\nThe Points (%ld,%ld) , (%ld,%ld) , (%ld,%ld) lies on a Straight  
line",x1,y1,x2,y2,x3,y3);  
else  
printf("\nThe points (%ld,%ld) , (%ld,%ld) , (%ld,%ld) donot lies on a  
straight line",x1,y1,x2,y2,x3,y3);  
getch();  
}
```

SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
5D.CPP
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
clrscr();
long x1,y1,x2,y2,x3,y3,d;
printf("\nEntered 3 points lies on a stright line or not");
printf("\nEnter the value of X1 Co-ordinate of first point : ");
scanf("%ld",&x1);
printf("\nEnter the value of Y1 Co-ordinate of first point : ");
scanf("%ld",&y1);
printf("\nEnter the value of X2 Co-ordinate of second point : ");
scanf("%ld",&x2);
printf("\nEnter the value of Y2 Co-ordinate of second point : ");
scanf("%ld",&y2);
printf("\nEnter the value of X3 Co-ordinate of third point : ");
scanf("%ld",&x3);
printf("\nEnter the value of Y3 Co-ordinate of third point : ");
scanf("%ld",&y3);
d=(x1*(y2-y3)-y1*(x2-x3)+1*((x2*y3)-(y2*x3)));
}
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
5D.CPP
long x1,y1,x2,y2,x3,y3,d;
printf("\nEntered 3 points lies on a stright line or not");
printf("\nEnter the value of X1 Co-ordinate of first point : ");
scanf("%ld",&x1);
printf("\nEnter the value of Y1 Co-ordinate of first point : ");
scanf("%ld",&y1);
printf("\nEnter the value of X2 Co-ordinate of second point : ");
scanf("%ld",&x2);
printf("\nEnter the value of Y2 Co-ordinate of second point : ");
scanf("%ld",&y2);
printf("\nEnter the value of X3 Co-ordinate of third point : ");
scanf("%ld",&x3);
printf("\nEnter the value of Y3 Co-ordinate of third point : ");
scanf("%ld",&y3);
d=(x1*(y2-y3)-y1*(x2-x3)+1*((x2*y3)-(y2*x3)));
if(d==0)
printf("\nThe Points (%ld,%ld) , (%ld,%ld) , (%ld,%ld) lies on a Straight line
else
printf("\nThe points (%ld,%ld) , (%ld,%ld) , (%ld,%ld) donot lies on a straigh
getch();
}
```

✓ OUTPUT-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

Entered 3 points lies on a stright line or not
Enter the value of X1 Co-ordinate of first point : 0
Enter the value of Y1 Co-ordinate of first point : 0
Enter the value of X2 Co-ordinate of second point : 1
Enter the value of Y2 Co-ordinate of second point : 0
Enter the value of X3 Co-ordinate of third point : 2
Enter the value of Y3 Co-ordinate of third point : 0
The Points (0,0) , (1,0) , (2,0) lies on a Straight line_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

Entered 3 points lies on a stright line or not
Enter the value of X1 Co-ordinate of first point : 0
Enter the value of Y1 Co-ordinate of first point : 0
Enter the value of X2 Co-ordinate of second point : 2
Enter the value of Y2 Co-ordinate of second point : 3
Enter the value of X3 Co-ordinate of third point : 0
Enter the value of Y3 Co-ordinate of third point : 2
The points (0,0) , (2,3) , (0,2) donot lies on a straight line_
```

QUESTION OF- LET US C {Chapter-3 Question(J)}

PROJECT NUMBER : **14**

TITLE OF THE PROJECT :

Point W.R.T Circle

Code -

```
#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

clrscr();

float r,d;

int x,y,x2,y2;


printf("\nTITLE : POINT W.R.T Circle");

printf("\nEnter the Value of radius : ");

scanf("%f",&r);

printf("\nEnter the X Co-ordinate of Centre of the circle : ");

scanf("%d",&x);

printf("\nEnter the Y Co-ordinate of the centre : ");

scanf("%d",&y);

printf("\nEnter the X of the point : ");

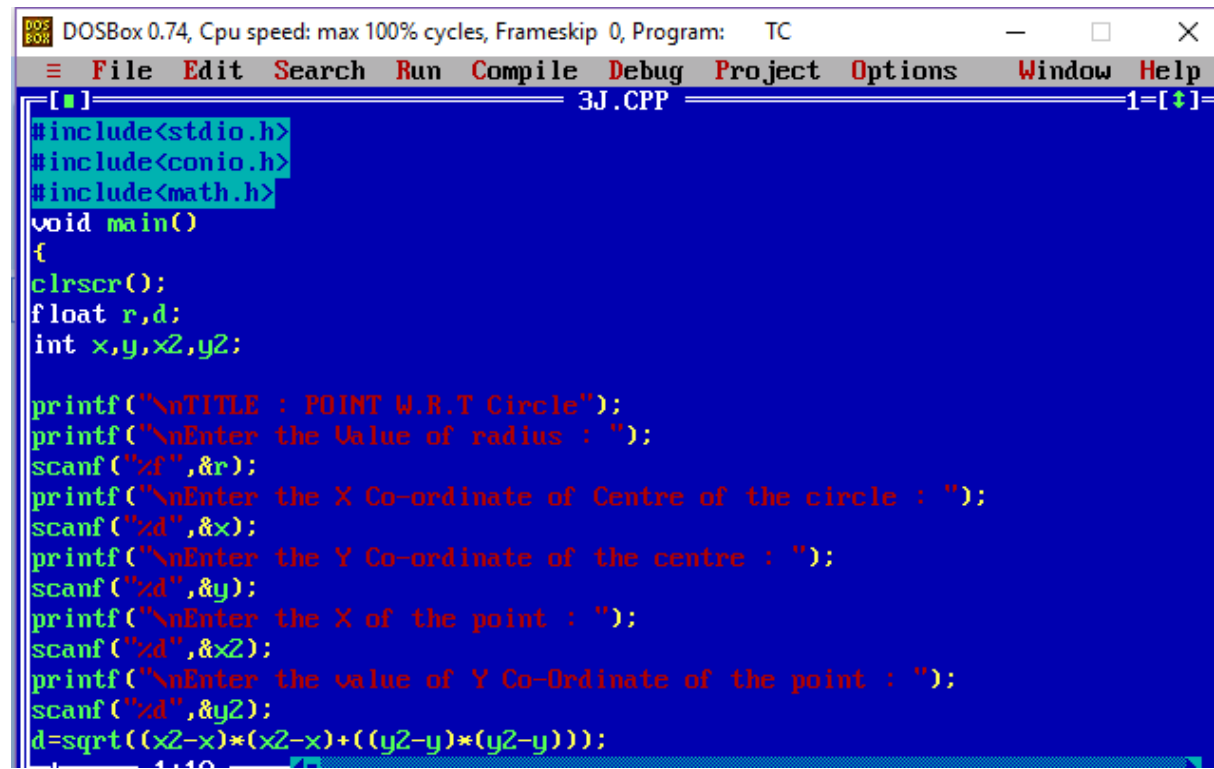
scanf("%d",&x2);

printf("\nEnter the value of Y Co-Ordinate of the point : ");
```

```
scanf("%d",&y2);  
d=sqrt((x2-x)*(x2-x)+((y2-y)*(y2-y)));  
if(d>r)  
printf("\nPoint (%d,%d) lies OUTSIDE the circle",x2,y2);  
else  
if(d<r)  
printf("\nPoint (%d,%d) lies INSIDE the circle",x2,y2);  
else  
printf("\nPoint (%d,%d) lies ON THE circle",x2,y2);  
getch();  
}
```

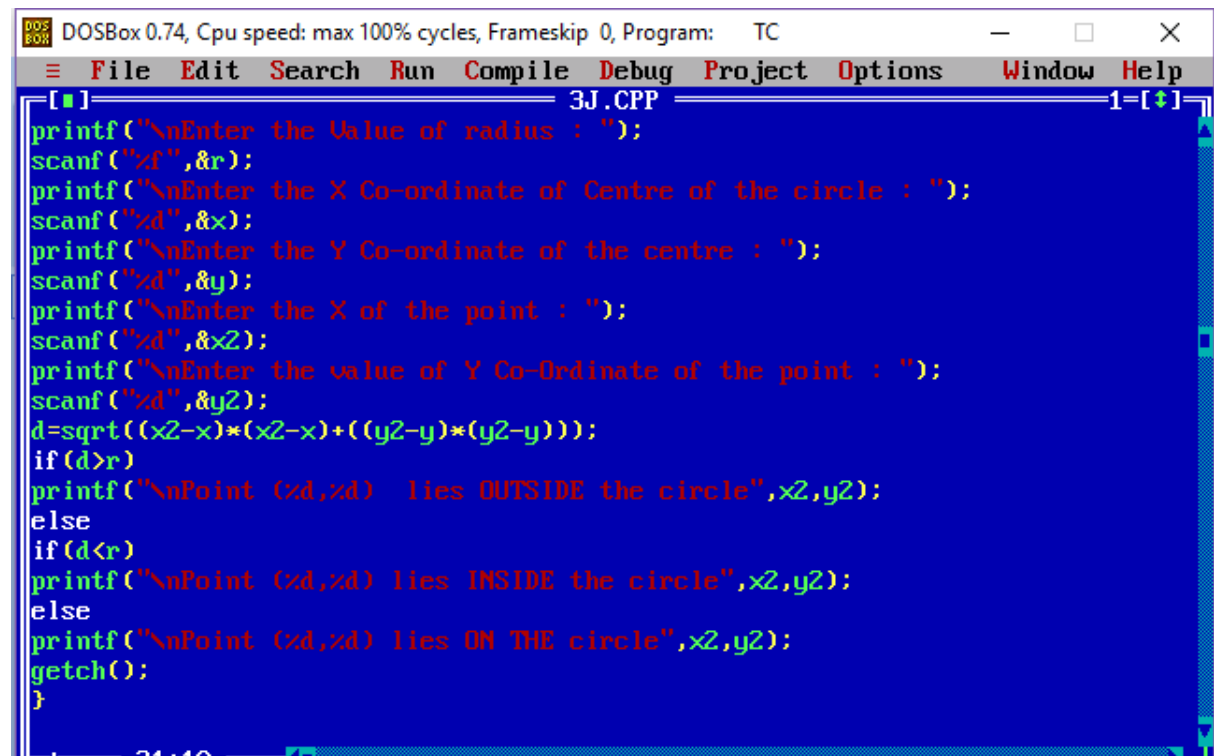
SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
3J.CPP
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
clrscr();
float r,d;
int x,y,x2,y2;

printf("\nTITLE : POINT W.R.T Circle");
printf("\nEnter the Value of radius : ");
scanf("%f",&r);
printf("\nEnter the X Co-ordinate of Centre of the circle : ");
scanf("%d",&x);
printf("\nEnter the Y Co-ordinate of the centre : ");
scanf("%d",&y);
printf("\nEnter the X of the point : ");
scanf("%d",&x2);
printf("\nEnter the value of Y Co-Ordinate of the point : ");
scanf("%d",&y2);
d=sqrt((x2-x)*(x2-x)+((y2-y)*(y2-y)));
```



```
printf("\nEnter the Value of radius : ");
scanf("%f",&r);
printf("\nEnter the X Co-ordinate of Centre of the circle : ");
scanf("%d",&x);
printf("\nEnter the Y Co-ordinate of the centre : ");
scanf("%d",&y);
printf("\nEnter the X of the point : ");
scanf("%d",&x2);
printf("\nEnter the value of Y Co-Ordinate of the point : ");
scanf("%d",&y2);
d=sqrt((x2-x)*(x2-x)+((y2-y)*(y2-y)));
if(d>r)
printf("\nPoint (%d,%d) lies OUTSIDE the circle",x2,y2);
else
if(d<r)
printf("\nPoint (%d,%d) lies INSIDE the circle",x2,y2);
else
printf("\nPoint (%d,%d) lies ON THE circle",x2,y2);
getch();
}
```

✓ OUTPUT-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE : POINT W.R.T Circle
Enter the Value of radius : 1

Enter the X Co-ordinate of Centre of the circle : 0

Enter the Y Co-ordinate of the centre :
0

Enter the X of the point : 1

Enter the value of Y Co-Ordinate of the point : 0

Point (1,0) lies ON THE circle
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE : POINT W.R.T Circle
Enter the Value of radius : 1

Enter the X Co-ordinate of Centre of the circle : 0

Enter the Y Co-ordinate of the centre : 0

Enter the X of the point : 2

Enter the value of Y Co-Ordinate of the point : 0

Point (2,0) lies OUTSIDE the circle
```

PROJECT NUMBER : 15

TITLE OF THE PROJECT :

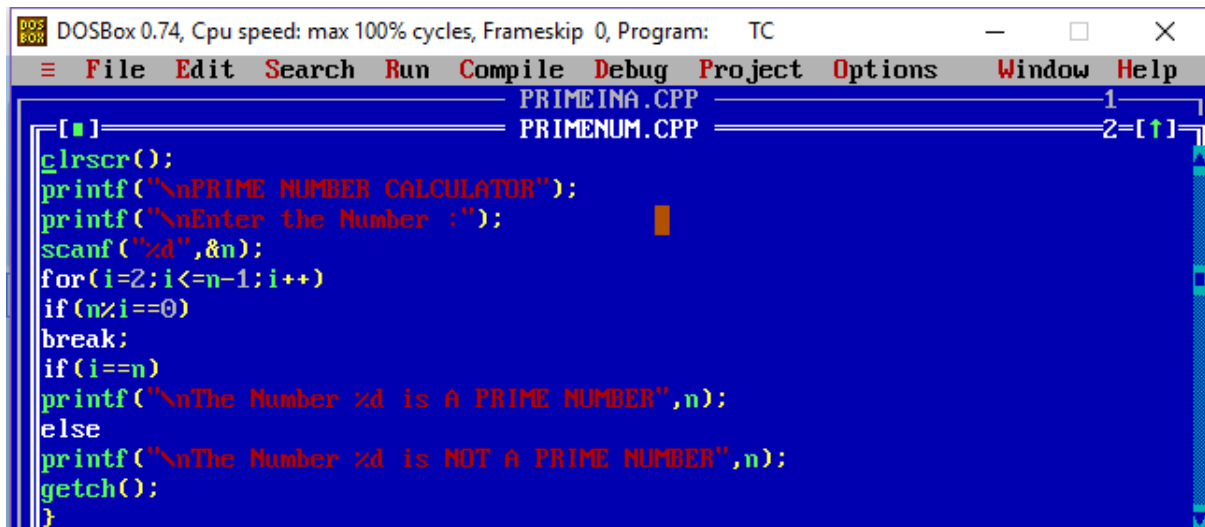
Prime Number

Code -

```
#include<stdio.h>
#include<conio.h>
void main()
{int n,i;
clrscr();
printf("\nPRIME NUMBER CALCULATOR");
printf("\nEnter the Number :");
scanf("%d",&n);
for(i=2;i<=n-1;i++)
if(n%i==0)
break;
if(i==n)
printf("\nThe Number %d is A PRIME NUMBER",n);
else
printf("\nThe Number %d is NOT A PRIME NUMBER",n);
getch();
}
```

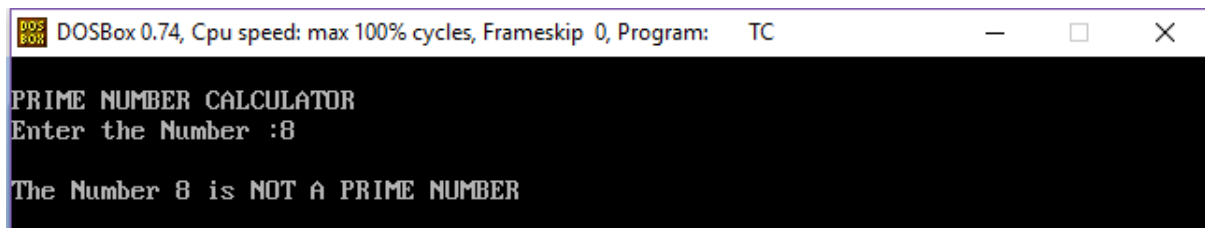

SCREENSHOT-

✓ CODE-

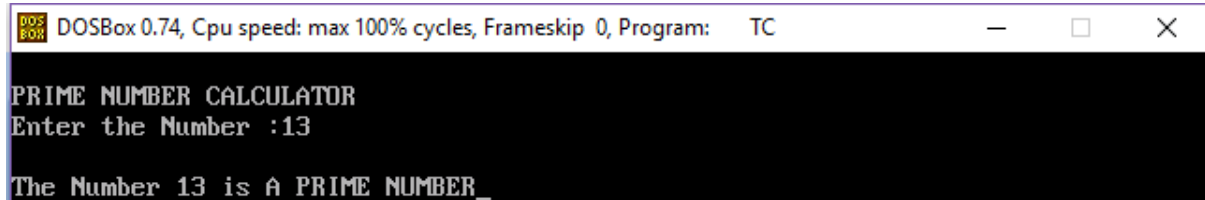


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
PRIMEIN.A.CPP 1
PRIMENUM.CPP 2=[↑]
clrscr();
printf("\nPRIME NUMBER CALCULATOR");
printf("\nEnter the Number :");
scanf("%d",&n);
for(i=2;i<=n-1;i++)
if(n%i==0)
break;
if(i==n)
printf("\nThe Number %d is A PRIME NUMBER",n);
else
printf("\nThe Number %d is NOT A PRIME NUMBER",n);
getch();
}
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
PRIME NUMBER CALCULATOR
Enter the Number :8
The Number 8 is NOT A PRIME NUMBER
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
PRIME NUMBER CALCULATOR
Enter the Number :13
The Number 13 is A PRIME NUMBER_
```

PROJECT NUMBER : 16

TITLE OF THE PROJECT :

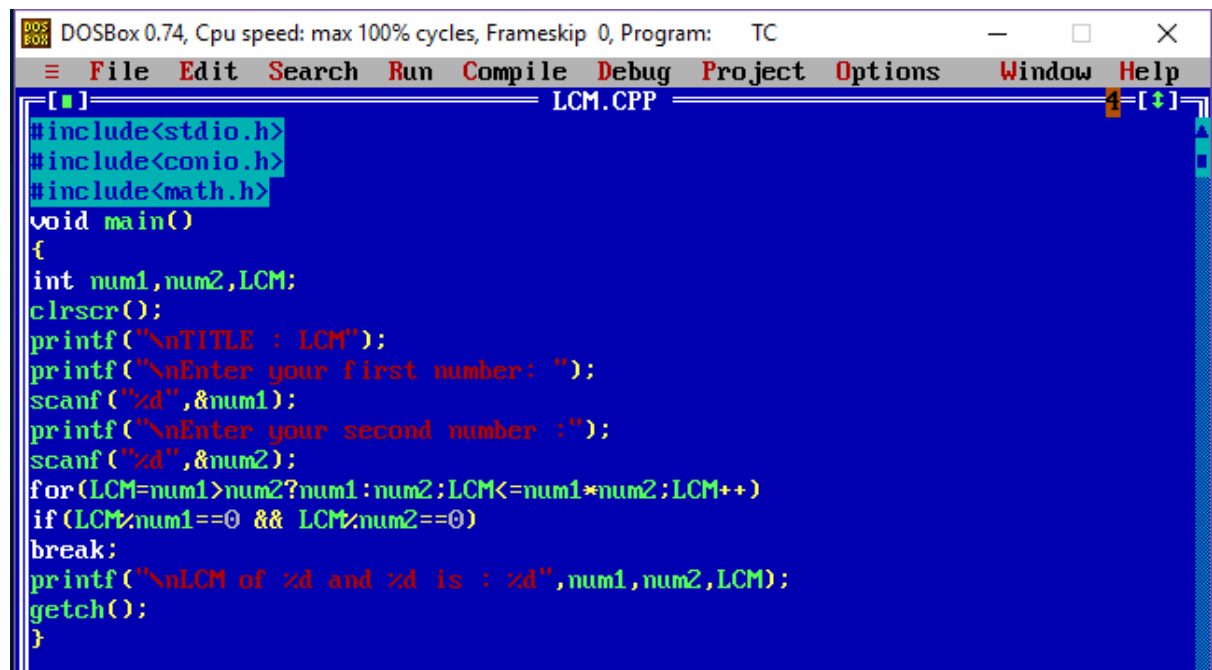
L.C.M

Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{int num1,num2,LCM;
clrscr();
printf("\nTITLE : LCM");
printf("\nEnter your first number: ");
scanf("%d",&num1);
printf("\nEnter your second number :");
scanf("%d",&num2);
for(LCM=num1>num2?num1:num2;LCM<=num1*num2;LCM++)
if(LCM%num1==0 && LCM%num2==0)
break;
printf("\nLCM of %d and %d is : %d",num1,num2,LCM);
getch();
}
```

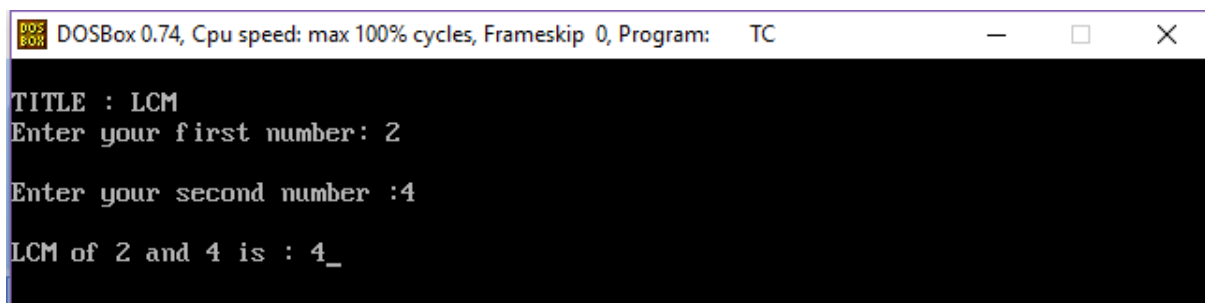
SCREENSHOT-

✓ CODE-

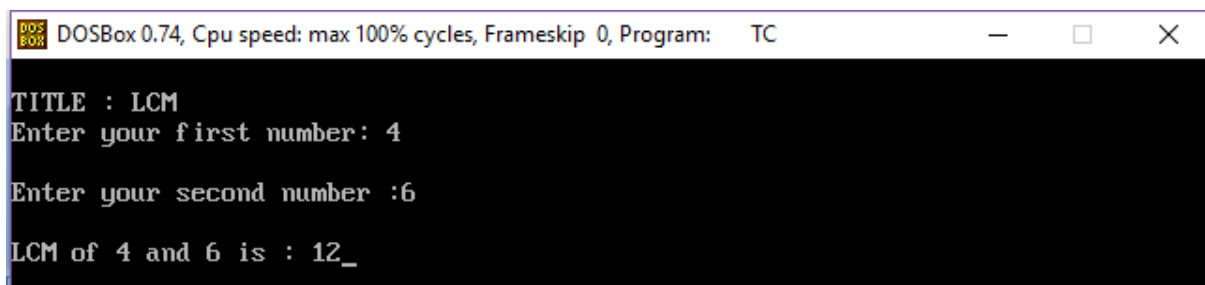


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
LCM.CPP
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
    int num1,num2,LCM;
    clrscr();
    printf("\nTITLE : LCM");
    printf("\nEnter your first number: ");
    scanf("%d",&num1);
    printf("\nEnter your second number :");
    scanf("%d",&num2);
    for(LCM=num1>num2?num1:num2;LCM<=num1*num2;LCM++)
        if(LCM%num1==0 && LCM%num2==0)
            break;
    printf("\nLCM of %d and %d is : %d",num1,num2,LCM);
    getch();
}
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : LCM
Enter your first number: 2
Enter your second number :4
LCM of 2 and 4 is : 4_
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : LCM
Enter your first number: 4
Enter your second number :6
LCM of 4 and 6 is : 12_
```

PROJECT NUMBER : 17

TITLE OF THE PROJECT :

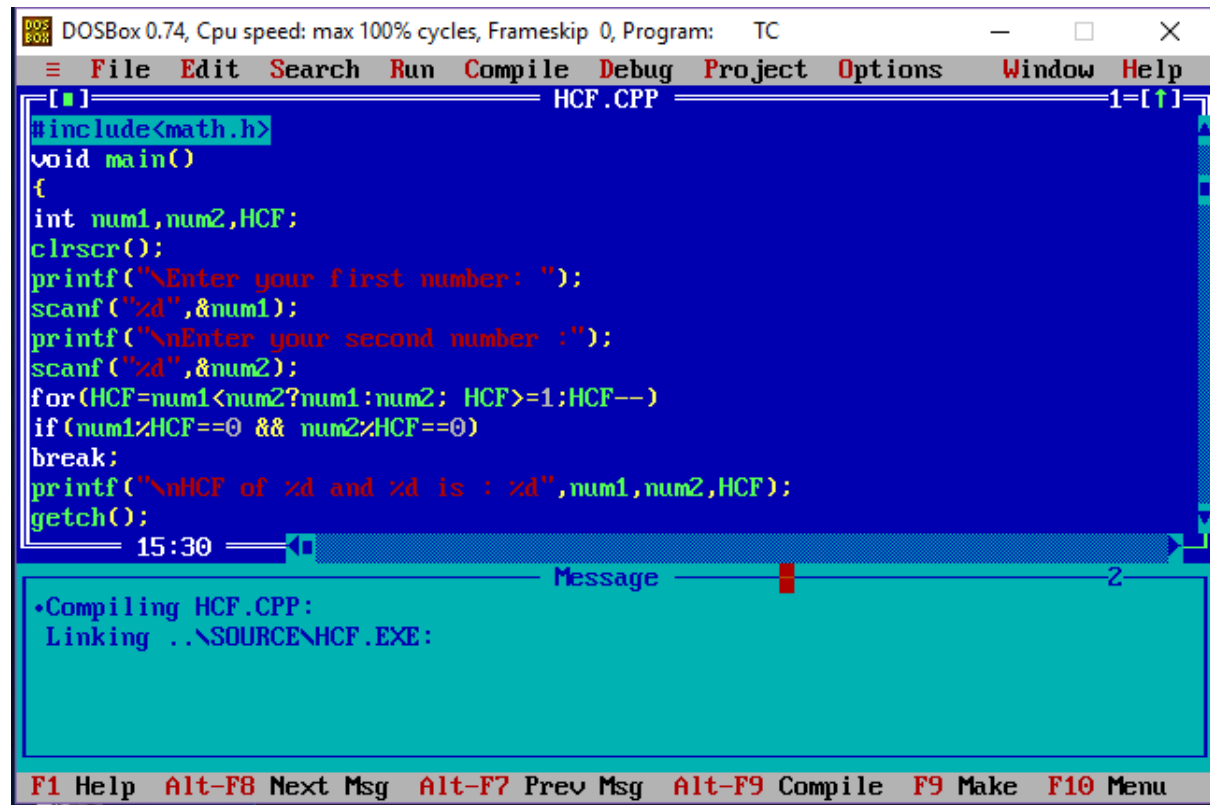
H . C . F

Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
int num1,num2,HCF;
clrscr();
printf("\nEnter your first number: ");
scanf("%d",&num1);
printf("\nEnter your second number :");
scanf("%d",&num2);
for(HCF=num1<num2?num1:num2; HCF>=1;HCF--)
if(num1%HCF==0 && num2%HCF==0)
break;
printf("\nHCF of %d and %d is : %d",num1,num2,HCF);
getch();
}
```

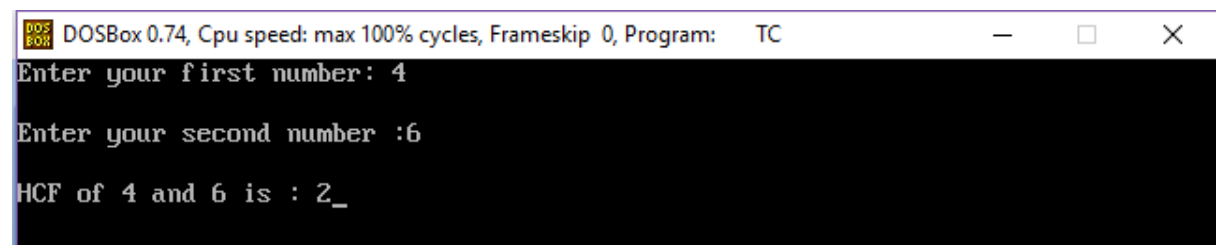
SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] HCF.CPP 1=[↑]
#include<math.h>
void main()
{
int num1,num2,HCF;
clrscr();
printf("\nEnter your first number: ");
scanf("%d",&num1);
printf("\nEnter your second number :");
scanf("%d",&num2);
for(HCF=num1<num2?num1:num2; HCF>=1;HCF--)
if(num1%HCF==0 && num2%HCF==0)
break;
printf("\nHCF of %d and %d is : %d",num1,num2,HCF);
getch();
15:30
Message 2
•Compiling HCF.CPP:
Linking ..\SOURCE\HCF.EXE:
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
Enter your first number: 4
Enter your second number :6
HCF of 4 and 6 is : 2_
```

PROJECT NUMBER : 18

TITLE OF THE PROJECT :

Mathematical Operation as per conditions

Code-

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
#include<math.h>
```

```
void main()
```

```
{
```

```
int num1,num2,c,d,sum,mul,g,h;
```

```
clrscr();
```

```
printf("\nTITLE : Mathematical operation");
```

```
printf("\nEntre your first Number :");
```

```
scanf("%d",&num1);
```

```
printf("\nEnter your second number :");
```

```
scanf("%d",&num2);
```

```
c=(num1)%10;
```

```
d=(num2)%10;
```

```
sum=c+d;
```

```
mul=c*d;
g=(sum)%5;
h=(mul)%5;
if(c>d && g==0)
{
printf("\nLast digit of %d is greater than last digit of %d
So ADDITION WILL BE DONE",num1,num2);
printf("\nSum = %d and the sum result is divisible by
5",sum);
}
else if(c>d && g!=0)
{
printf("\nLast digit of %d is greater than last digit of %d
So ADDITION WILL BE DONE",num1,num2);
printf("\nSum = %d but sum result is not divisible by
5",sum);
}
else if(d>c && h==0)
{
printf("\nLast digit of %d is smaller than last digit of %d
So MULTIPLICATION WILL BE DONE",num1,num2);
printf("\nMultiplication : %d and the multiplication result is
divissible by 5",mul);
```

```
}  
else if(d>c && h!=0)  
{  
printf("\nLast digit of %d is smaller than last digit of %d  
So MULTIPLICATION WILL BE DONE",num1,num2);  
printf("\nMultiplication : %d but the multiplication result is  
not divisible by 5",mul);  
}  
else  
  
printf("\nLast digit of %d is equal to the last digit of %d So  
No mathematical operation will be done",num1,num2);  
  
getch();  
}
```


SCREENSHOT-

✓ CODE-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] ABHIMATH.CPP 1=[↑]
#include<stdio.h>
#include<conio.h>
#include<math.h>

void main()
{
int num1,num2,c,d,sum,mul,g,h;
clrscr();
printf("\nTITLE : Mathematical operation");
printf("\nEnter your first Number :");
scanf("%d",&num1);
printf("\nEnter your second number :");
scanf("%d",&num2);
c=(num1)%10;

d=(num2)%10;
sum=c+d;
mul=c*d;
g=(sum)%5;
h=(mul)%5;
if(c>d && g==0)
{
printf("\nLast digit of %d is greater than last digit of %d So ADDITION WILL B
printf("\nSum = %d and the sum result is divisible by 5",sum);
}
else if(c>d && g!=0)
{
printf("\nLast digit of %d is greater than last digit of %d So ADDITION WILL B
printf("\nSum = %d but sum result is not divisible by 5",sum);
}
else if(d>c && h==0)
{
printf("\nLast digit of %d is smaller than last digit of %d So MULTIPLICATION
printf("\nMultiplication : %d and the multiplication result is divisibile by 5
}
else if(d>c && h!=0)
{
printf("\nLast digit of %d is smaller than last digit of %d So MULTIPLICATION
printf("\nMultiplication : %d but the multiplication result is not divisible b
}
else
printf("\nLast digit of %d is equal to the last digit of %d So No mathematical
getch();
23:37
```

✓ OUTPUT-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE : Mathematical operation
Entre your first Number :23

Enter your second number :34

Last digit of 23 is smaller than last digit of 34 So MULTIPLICATION WILL BE DONE

Multiplication : 12 but the multiplication result is not divisible by 5
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE : Mathematical operation
Entre your first Number :34

Enter your second number :23

Last digit of 34 is greater than last digit of 23 So ADDITION WILL BE DONE
Sum = 7 but sum result is not divisible by 5_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE : Mathematical operation
Entre your first Number :234

Enter your second number :25634

Last digit of 234 is equal to the last digit of 25634 So No mathematical operation will be done_
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE : Mathematical operation
Entre your first Number :243

Enter your second number :24222

Last digit of 243 is greater than last digit of 24222 So ADDITION WILL BE DONE
Sum = 5 and the sum result is divisible by 5
```

PROJECT NUMBER : 19

TITLE OF THE PROJECT :

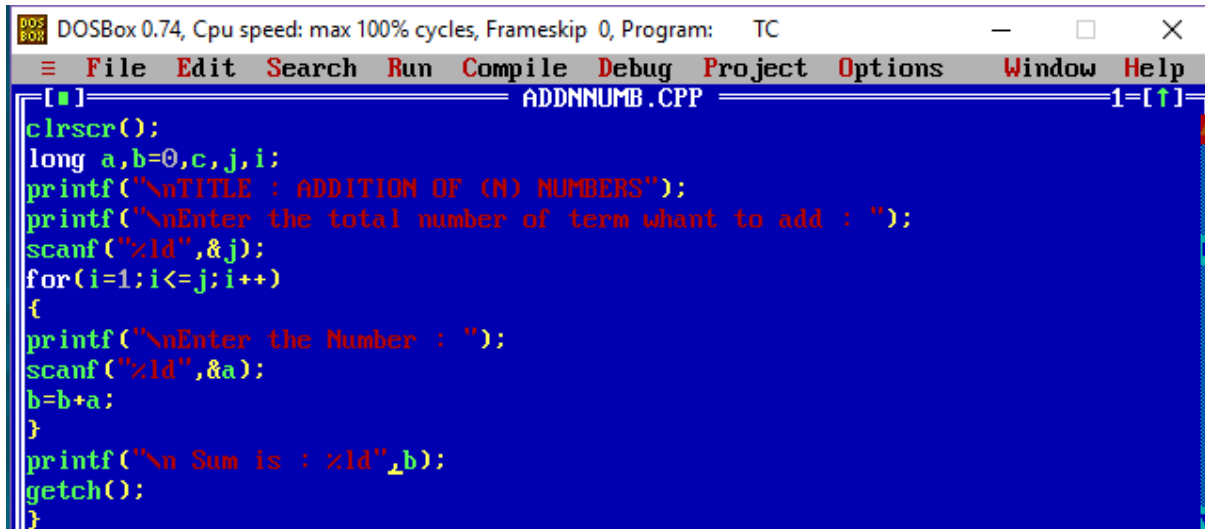
Addition of (N) Numbers

Code-

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{ clrscr();
  long a,b=0,c,j,i;
  printf("\nTITLE : ADDITION OF (N) NUMBERS");
  printf("\nEnter the total number of term want to add : ");
  scanf("%ld",&j);
  for(i=1;i<=j;i++)
  { printf("\nEnter the Number : ");
    scanf("%ld",&a);
    b=b+a; }
  printf("\n Sum is : %ld",b);
  getch();
}
```

SCREENSHOT-

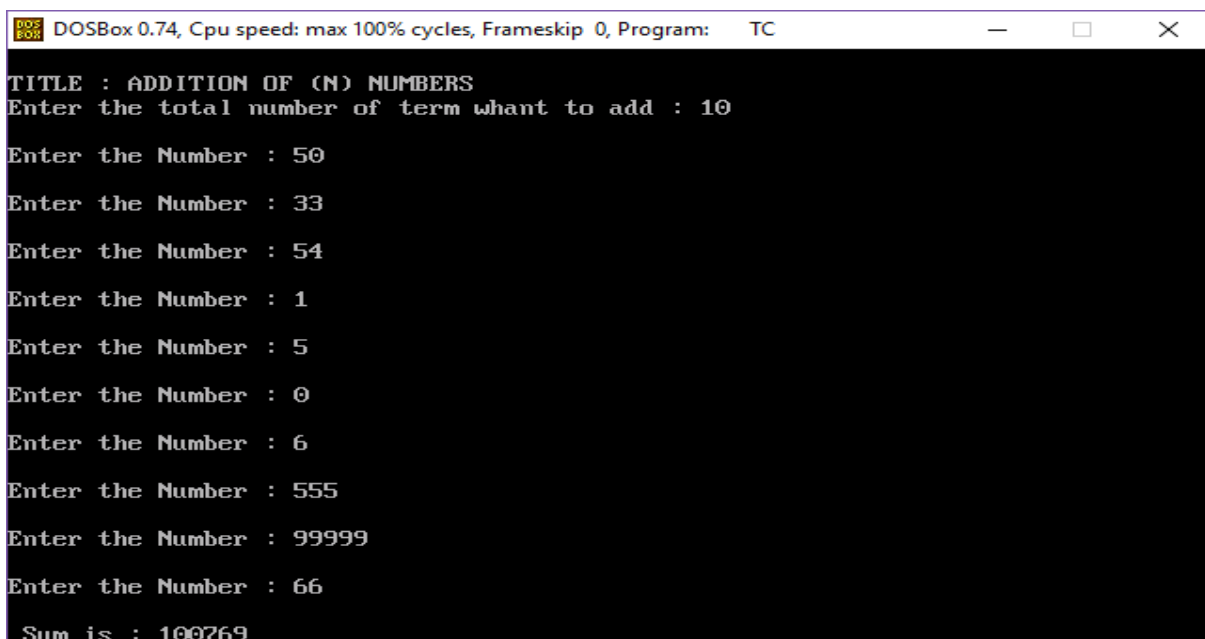
✓ CODE-



The screenshot shows a DOSBox window titled "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC". The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The file name "ADDNNUMB.CPP" is displayed in the title bar. The code is as follows:

```
clrscr();
long a,b=0,c,j,i;
printf("\nTITLE : ADDITION OF (N) NUMBERS");
printf("\nEnter the total number of term whant to add : ");
scanf("%ld",&j);
for(i=1;i<=j;i++)
{
printf("\nEnter the Number : ");
scanf("%ld",&a);
b=b+a;
}
printf("\n Sum is : %ld",b);
getch();
}
```

✓ OUTPUT-



The screenshot shows the output of the program in a DOSBox window. The output is as follows:

```
TITLE : ADDITION OF (N) NUMBERS
Enter the total number of term whant to add : 10

Enter the Number : 50
Enter the Number : 33
Enter the Number : 54
Enter the Number : 1
Enter the Number : 5
Enter the Number : 0
Enter the Number : 6
Enter the Number : 555
Enter the Number : 99999
Enter the Number : 66

Sum is : 100769
```

PROJECT NUMBER : 20

TITLE OF THE PROJECT :

Factorial of a number

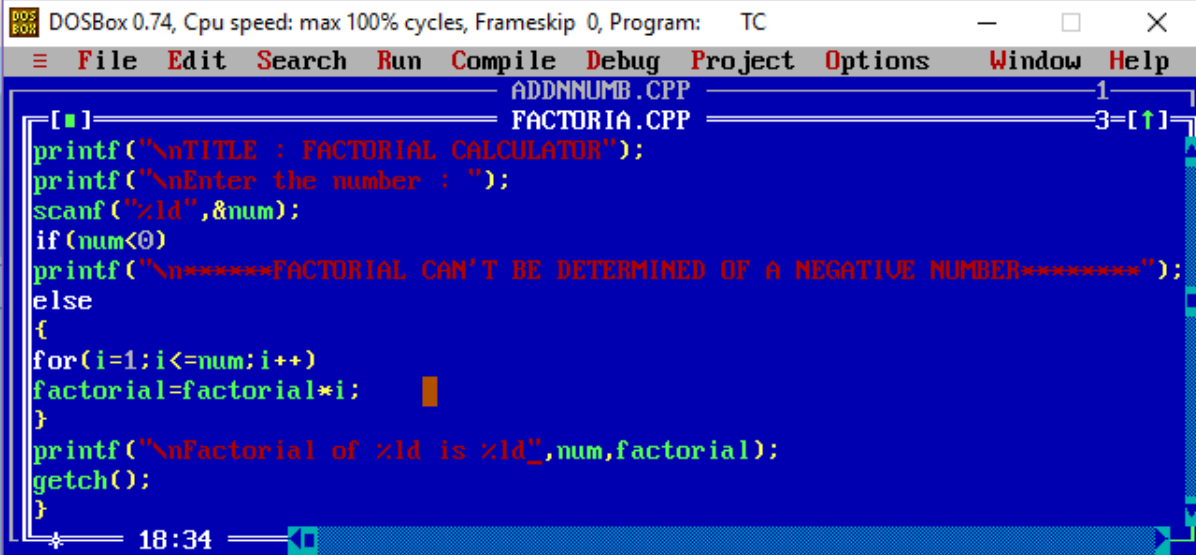
Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
clrscr();
long num,i,factorial=1;
printf("\nTITLE : FACTORIAL CALCULATOR");
printf("\nEnter the number : ");
scanf("%ld",&num);
if(num<0)
printf("\n*****FACTORIAL CAN'T BE DETERMINED OF
A NEGATIVE NUMBER*****");
else
{
for(i=1;i<=num;i++)
factorial=factorial*i;
}
```

```
printf("\nFactorial of %ld is %ld",num,factorial);  
getch();  
}
```

SCREENSHOT-

✓ CODE-

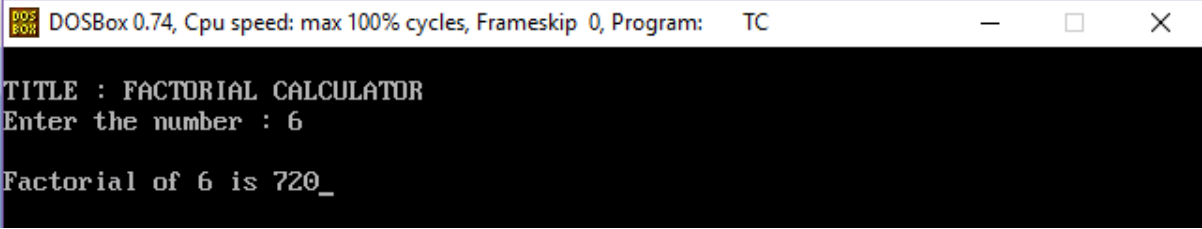


The screenshot shows a DOSBox window titled "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC". The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The code editor displays the following C++ code:

```
ADDNUMB.CPP 1  
FACTORIA.CPP 3=[↑]  
[.]  
printf("\nTITLE : FACTORIAL CALCULATOR");  
printf("\nEnter the number : ");  
scanf("%ld",&num);  
if (num<0)  
printf("\n*****FACTORIAL CAN'T BE DETERMINED OF A NEGATIVE NUMBER*****");  
else  
{  
for(i=1;i<=num;i++)  
factorial=factorial*i;  
}  
printf("\nFactorial of %ld is %ld",num,factorial);  
getch();  
}
```

The status bar at the bottom shows the time 18:34.

✓ OUTPUT-



The screenshot shows the output of the program in a DOSBox window. The output is as follows:

```
TITLE : FACTORIAL CALCULATOR  
Enter the number : 6  
Factorial of 6 is 720_
```

PROJECT NUMBER : 21

TITLE OF THE PROJECT :

Reverse a number

Code -

```
#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()
{
clrscr();

long num,r;

printf("\nTITLE : REVERSE OF THE NUMBER ");

printf("\nEnter the number : ");

scanf("%ld",&num);

printf("\nReverse of the number : ");

while(num!=0)
{
r=num%10;

printf("%ld",r);

num=num/10;

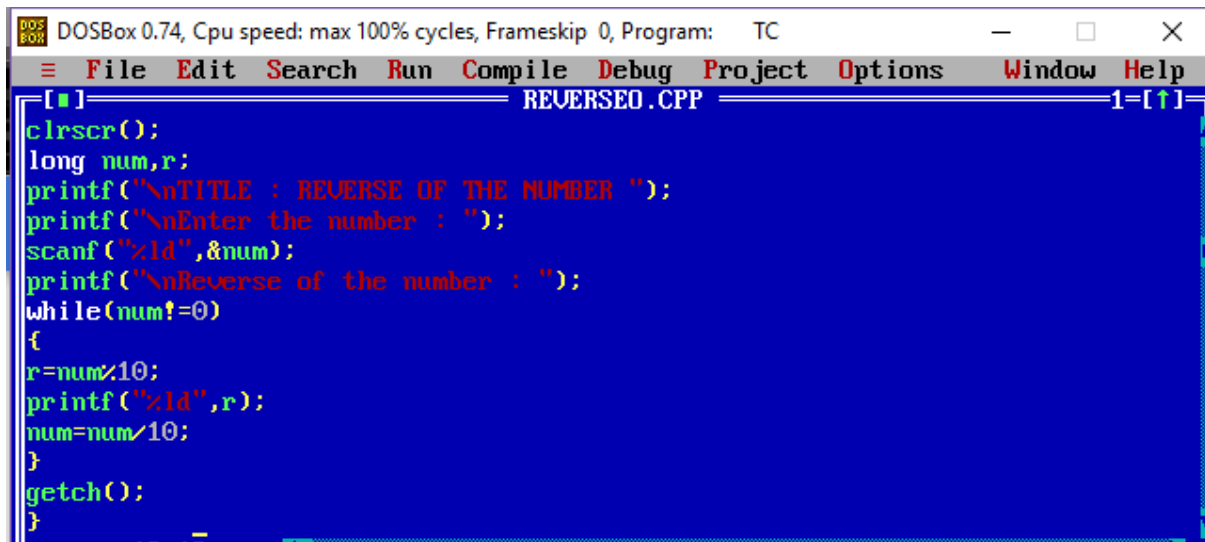
}

getch();

}
```

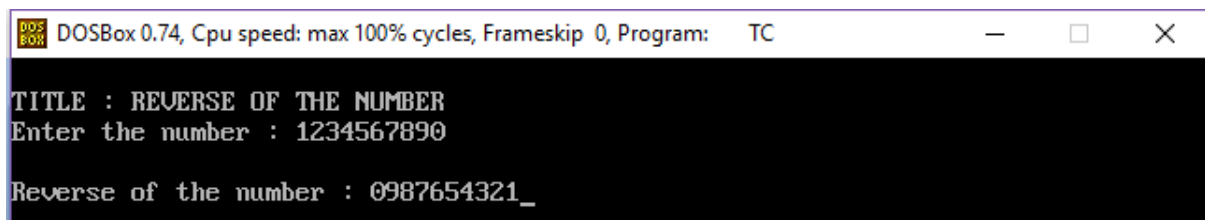
SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] REVERSEO.CPP 1=[↑]
clrscr();
long num,r;
printf("\nTITLE : REVERSE OF TME NUMBER ");
printf("\nEnter the number : ");
scanf("%ld",&num);
printf("\nReverse of the number : ");
while(num!=0)
{
r=num%10;
printf("%ld",r);
num=num/10;
}
getch();
}
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

TITLE : REVERSE OF THE NUMBER
Enter the number : 1234567890

Reverse of the number : 0987654321_
```


PROJECT NUMBER : 22

TITLE OF THE PROJECT :

Armstrong Number

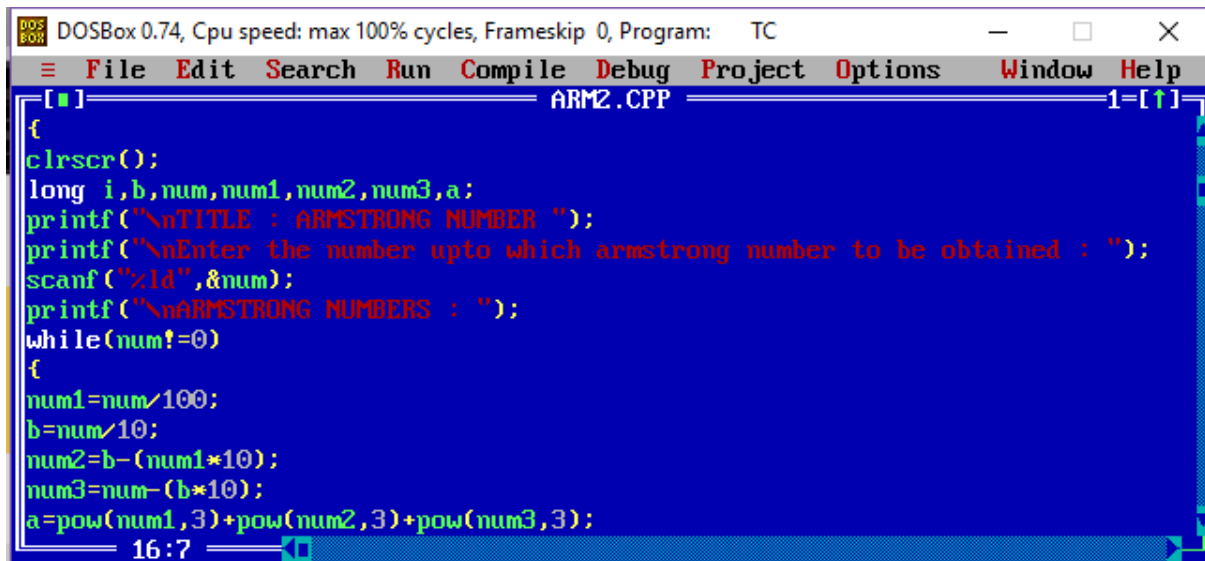
Code -

```
#include<stdio.h>
#include<math.h>
#include<conio.h>
void main()
{
clrscr();
long i,b,num,num1,num2,num3,a;
printf("\nTITLE : ARMSTRONG NUMBER ");
printf("\nEnter the number upto which armstrong number
to be obtained : ");
scanf("%ld",&num);
printf("\nARMSTRONG NUMBERS : ");
while(num!=0)
{
num1=num/100;
b=num/10;
num2=b-(num1*10);
num3=num-(b*10);
```

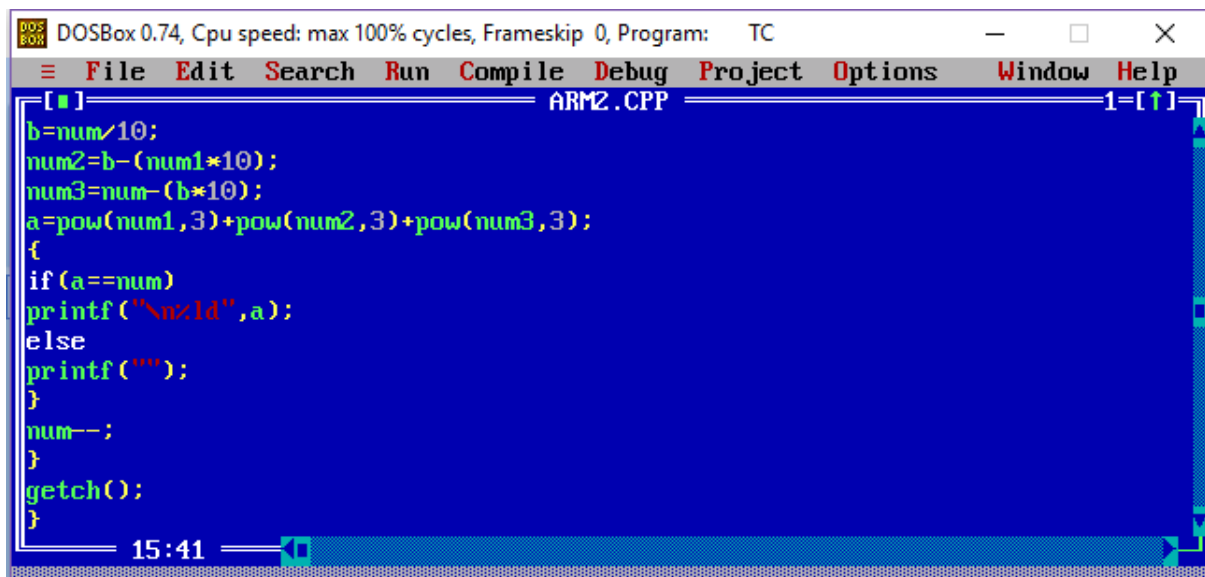
```
a=pow(num1,3)+pow(num2,3)+pow(num3,3);  
{  
if(a==num)  
printf("\n%d",a);  
else  
printf("");  
}  
num--;  
}  
getch();  
}
```

SCREENSHOT-

✓ CODE-

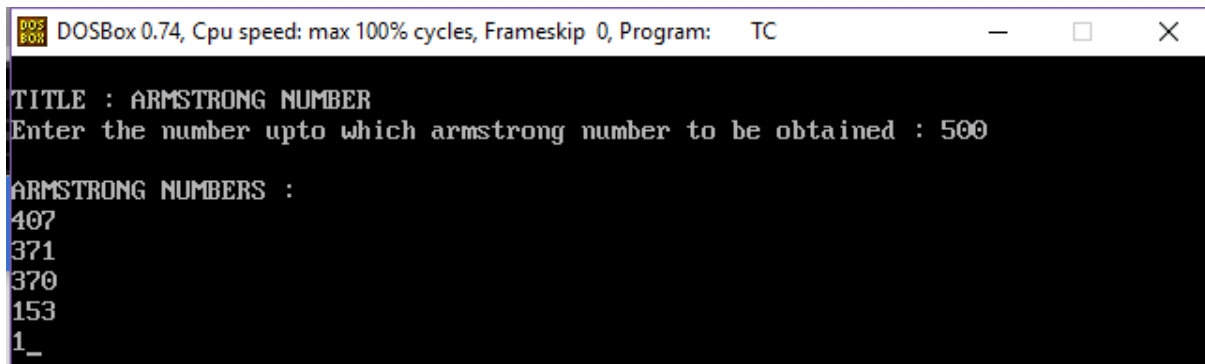


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[.] ARM2.CPP 1-[↑]
{
clrscr();
long i,b,num,num1,num2,num3,a;
printf("\nTITLE : ARMSTRONG NUMBER ");
printf("\nEnter the number upto which armstrong number to be obtained : ");
scanf("%ld",&num);
printf("\nARMSTRONG NUMBERS : ");
while(num!=0)
{
num1=num/100;
b=num/10;
num2=b-(num1*10);
num3=num-(b*10);
a=pow(num1,3)+pow(num2,3)+pow(num3,3);
16:7
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[.] ARM2.CPP 1-[↑]
b=num/10;
num2=b-(num1*10);
num3=num-(b*10);
a=pow(num1,3)+pow(num2,3)+pow(num3,3);
{
if(a==num)
printf("\n%ld",a);
else
printf("");
}
num--;
}
getch();
}
15:41
```

✓ OUTPUT-



DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

```
TITLE : ARMSTRONG NUMBER
Enter the number upto which armstrong number to be obtained : 500

ARMSTRONG NUMBERS :
407
371
370
153
1_
```

PROJECT NUMBER : 23

TITLE OF THE PROJECT :

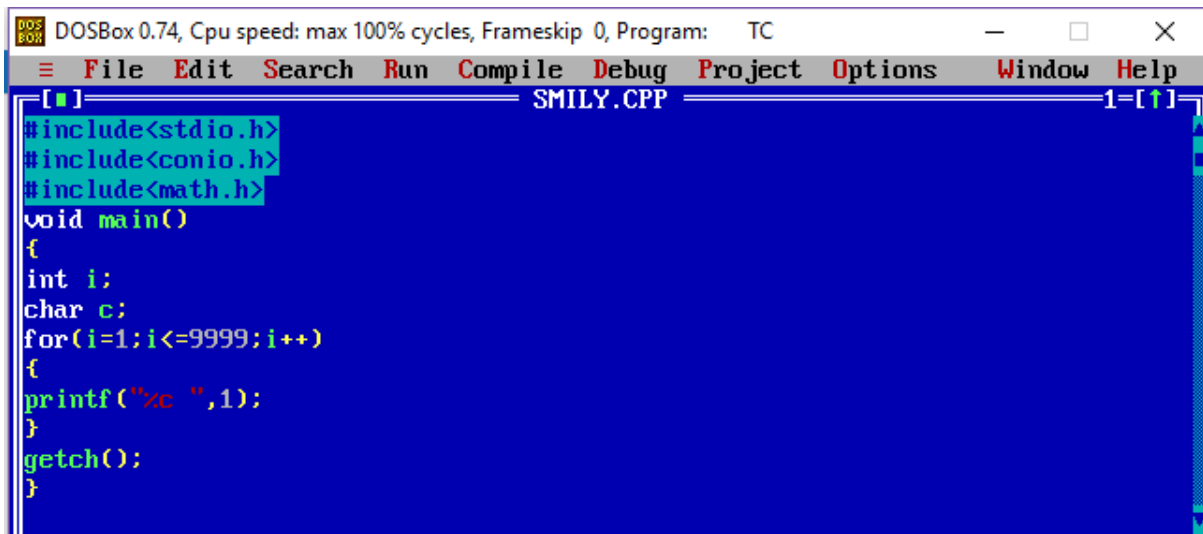
Print Smiling face in whole screen

Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
int i;
char c;
for(i=1;i<=9999;i++)
{
printf("%c ",1);
}
getch();
}
```

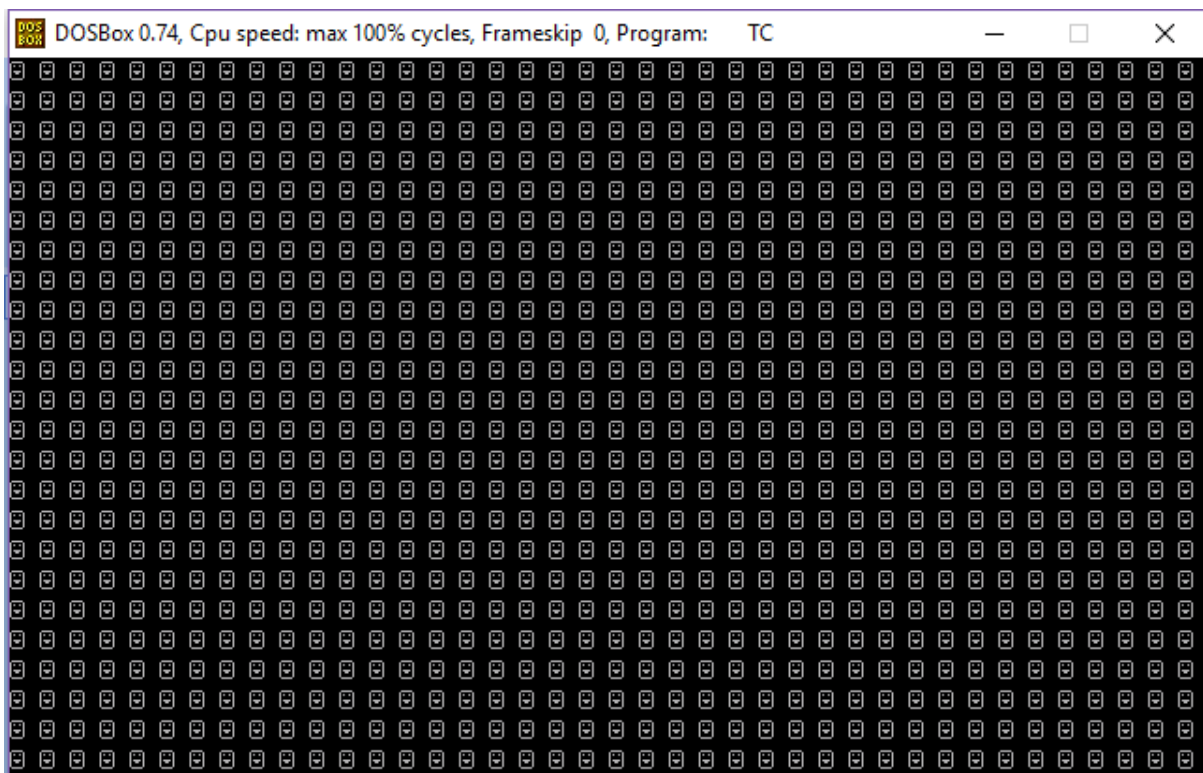
SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] SMILY.CPP 1=[↑]
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
    int i;
    char c;
    for(i=1;i<=9999;i++)
    {
        printf("%c ",1);
    }
    getch();
}
```

✓ OUTPUT-



PROJECT NUMBER : 24

TITLE OF THE PROJECT :

Number of words in a line

Code -

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
char str[25];
```

```
int i=0,c=0;
```

```
clrscr();
```

```
printf("\nTITLE : Length of Strng");
```

```
printf("\nEnter Key word or lines : ");
```

```
gets(str);
```

```
while(str[i]!='\0')
```

```
{
```

```
if (str[i]==32 || str[i]==' ')
```

```
{
```

```
c=c++;
```

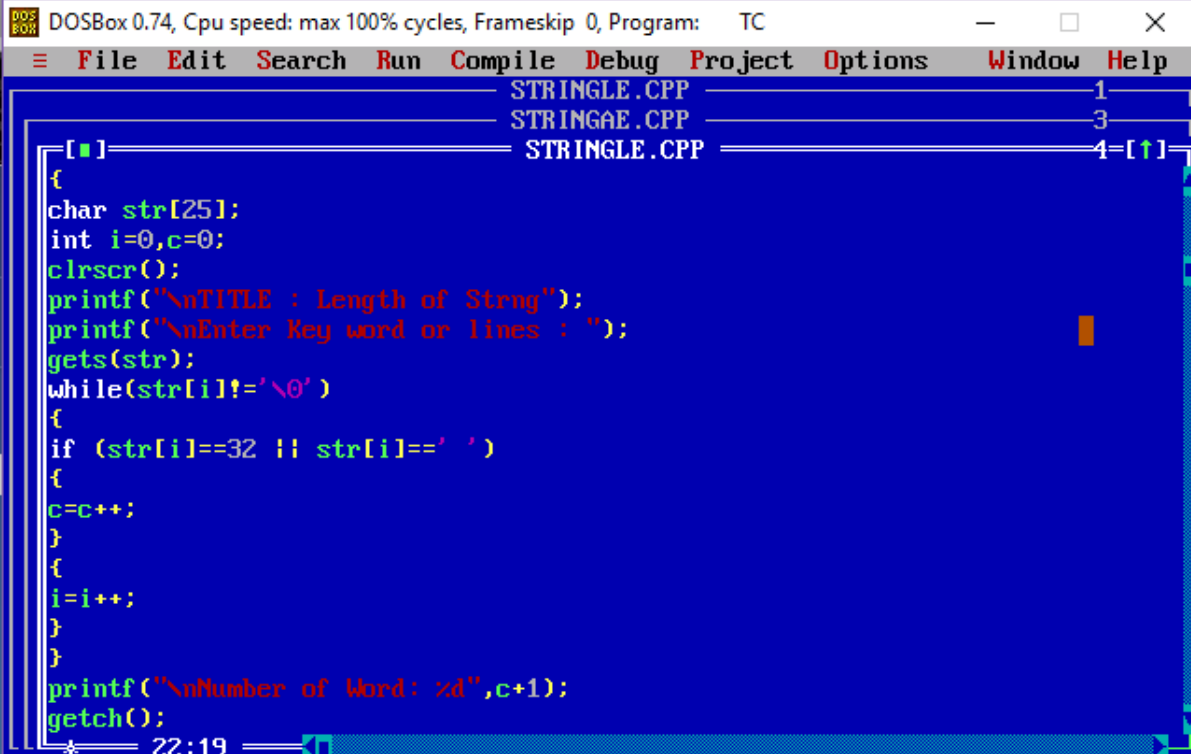
```
}
```

```
{
```

```
i=i++;  
}  
}  
printf("\nNumber of Word: %d",c+1);  
getch();  
}
```



SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
STRINGLE.CPP 1
STRINGAE.CPP 3
STRINGLE.CPP 4=[↑]
{
char str[25];
int i=0,c=0;
clrscr();
printf("\nTITLE : Length of Strng");
printf("\nEnter Key word or lines : ");
gets(str);
while(str[i]!='\0')
{
if (str[i]==32 || str[i]==' ')
{
c=c++;
}
i=i++;
}
printf("\nNumber of Word: %d",c+1);
getch();
22:19
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
TITLE : Length of Strng
Enter Key word or lines : Shubham Sagar
Number of Word: 2
```

PROJECT NUMBER : 25

TITLE OF THE PROJECT :

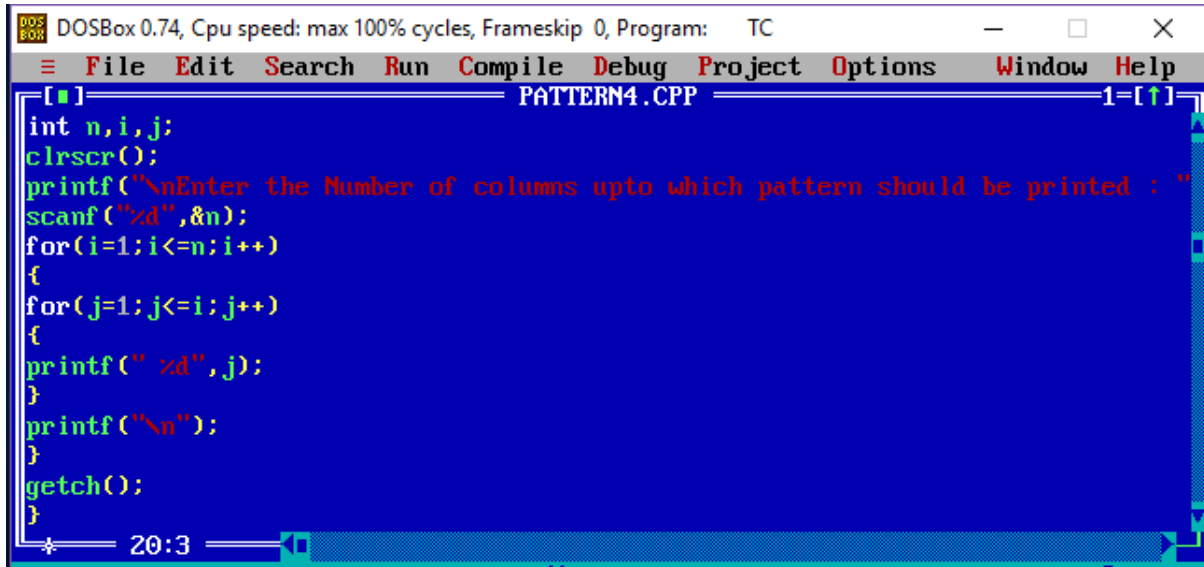
Pattern

Code -

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,i,j;
    clrscr();
    printf("\nEnter the Number of columns upto which pattern
    should be printed : ");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
    {for(j=1;j<=i;j++)
    {
        printf(" %d",j);}
        printf("\n");
    }
    getch();
}
```

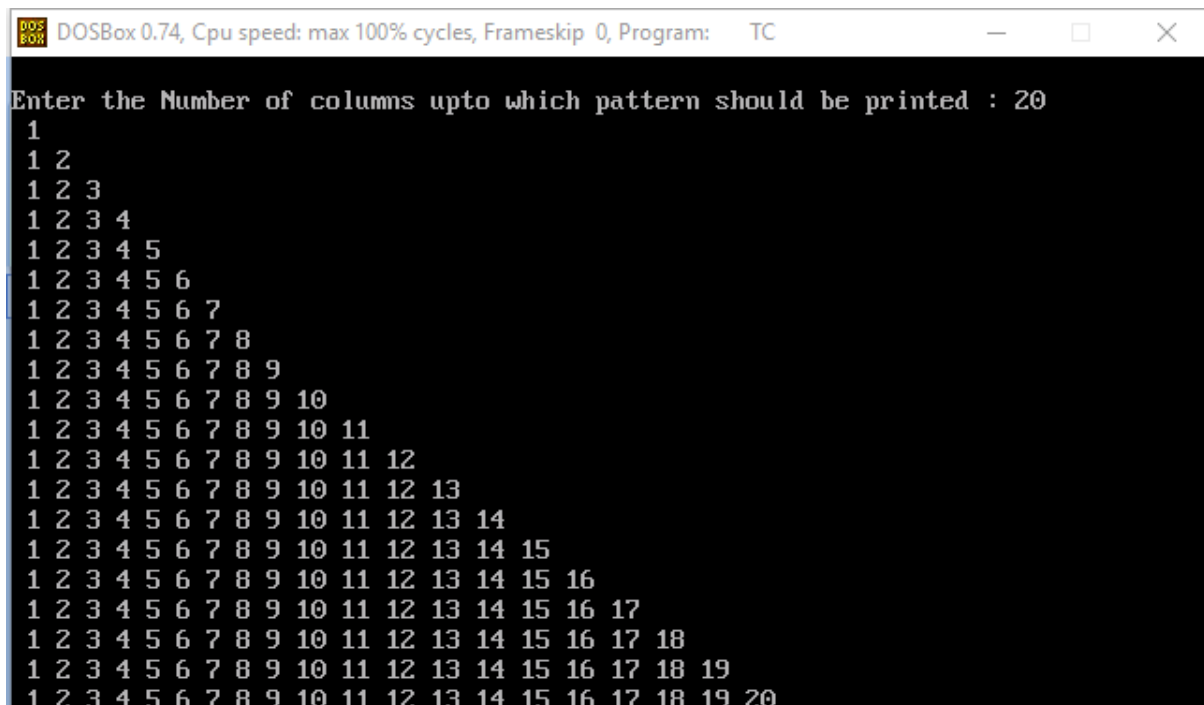
SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
PATTERN4.CPP
int n,i,j;
clrscr();
printf("\nEnter the Number of columns upto which pattern should be printed : ");
scanf("%d",&n);
for(i=1;i<=n;i++)
{
for(j=1;j<=i;j++)
{
printf(" %d",j);
}
printf("\n");
}
getch();
20:3
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
Enter the Number of columns upto which pattern should be printed : 20
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
1 2 3 4 5 6 7
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8 9
1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10 11
1 2 3 4 5 6 7 8 9 10 11 12
1 2 3 4 5 6 7 8 9 10 11 12 13
1 2 3 4 5 6 7 8 9 10 11 12 13 14
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
```

PROJECT NUMBER : 26

TITLE OF THE PROJECT :

A.P (Switch Case)

Code -

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<math.h>
#define P printf
#define S scanf
void main()
{
int n,a,d,l,choice,x,y,z,yy,zz;
float sum;
clrscr();
P("\nAP CALCULATOR");
P("\n\nNOTATIONS : \n1.a=First term\n2.d=Common
Differnce\n3.l=Last term\n4.n=Number of term");
P("\n\n1.If First Term (a),Number of term (n) and Last
Term (l) is known");
P("\n\n2.If Number of term (n),First term (a) and Common
difference (d) is known");
```

```
P("\n\n3.Exit");
P("\n\nEnter the choice : ");
S("%d",&choice);
switch(choice)
{
case 2:
P("\nEnter the value of n : ");
S("%d",&n);
P("\nEnter the value of First Term of this series (a) : " );
S("%d",&a);
P("\nEnter the value of Common difference (d) :");
S("%d",&d);
x=a*n;
yy=n*d;
y=yy/2;
zz=n-1;
z=y*zz;
sum=x+z;
P("Sum of the Above series is : %f",sum);
break;
case 1:
P("\nEnter the value of n : ");
```

```
S("%d",&n);
P("\nEnter the value of First Term of this series (a) : " );
S("%d",&a);
P("\nEnter the value of last term (l) :");
S("%d",&l);
sum=(n*(a+l))/2;
P("Sum of the Above series is : %f",sum);
break;
case 3:exit(0);
break;
default:
printf("\nSorry Wrong Choice Entered please try again...");
break;
}
getch();
}
```

SCREENSHOT-

✓ CODE-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
AP.CPP 1=1
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<math.h>
#define P printf
#define S scanf
void main()
{
int n,a,d,l,choice,x,y,z,yy,zz;
float sum;
clrscr();
P("\nAP CALCULATOR");
P("\n\nNOTATIONS : \n1.a=First term\n2.d=Common Difference\n3.l=Last term\n4.n=
P("\n\n1.If First Term (a),Number of term (n) and Last Term (l) is known");
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
AP.CPP 1=1
P("\n\n1.If First Term (a),Number of term (n) and Last Term (l) is known");
P("\n\n2.If Number of term (n),First term (a) and Common difference (d) is known");
P("\n\n3.Exit");
P("\n\nEnter the choice : ");
S("%d",&choice);
switch(choice)
{
case 2:
P("\n\nEnter the value of n : ");
S("%d",&n);
P("\n\nEnter the value of First Term of this series (a) : ");
S("%d",&a);
P("\n\nEnter the value of Common difference (d) : ");
S("%d",&d);
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
AP.CPP 1=1
x=a*n;
yy=n*d;
y=yy/2;
zz=n-1;
z=y*zz;
sum=x+z;
P("Sum of the Above series is : %f",sum);
break;
case 1:
P("\n\nEnter the value of n : ");
S("%d",&n);
P("\n\nEnter the value of First Term of this series (a) : ");
S("%d",&a);
P("\n\nEnter the value of last term (l) : ");
```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
AP.CPP
1=[↑]
S("%d",&a);
P("\nEnter the value of last term (l) :");
S("%d",&l);
sum=(n*(a+l))/2;
P("Sum of the Above series is : %f",sum);
break;
case 3:exit(0);
break;
default:
printf("\nSorry Wrong Choice Entered please try again...");
break;
}
getch();
}
```

✓ OUTPUT-

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
AP CALCULATOR
NOTATIONS :
1.a=First term
2.d=Common Difference
3.l=Last term
4.n=Number of term
1.If First Term (a),Number of term (n) and Last Term (l) is known
2.If Number of term (n),First term (a) and Common difference (d) is known
3.Exit
Enter the choice : 2
Enter the value of n : 6
Enter the value of First Term of this series (a) : 2
Enter the value of Common difference (d) : 6
Sum of the Above series is : 102.000000_
```


PROJECT NUMBER : 27

TITLE OF THE PROJECT :

Prime Number in a given range

Code -

```
#include<stdio.h>
#include<conio.h>
void main()
{
int nl,nu,i,j;
clrscr();
printf("\nPRIME NUMBER IN A GIVEN RANGE");
printf("\nEnter the Lower Limit Number:");
scanf("%d",&nl);
printf("\nEnter the Uper Limit Number:");
scanf("%d",&nu);
for(j=nl;j<=nu;j++)
{
for(i=2;i<=j-1;i++)
if(j%i==0)
break;
if(i==j)
```

```
printf("%d\t",j);
```

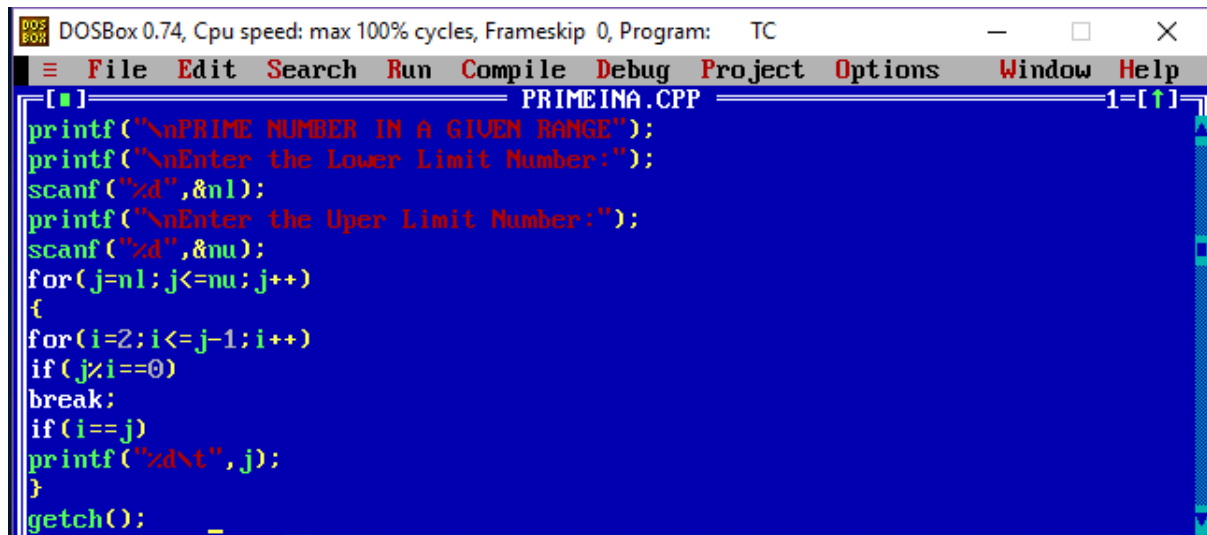
```
}
```

```
getch();
```

```
}
```

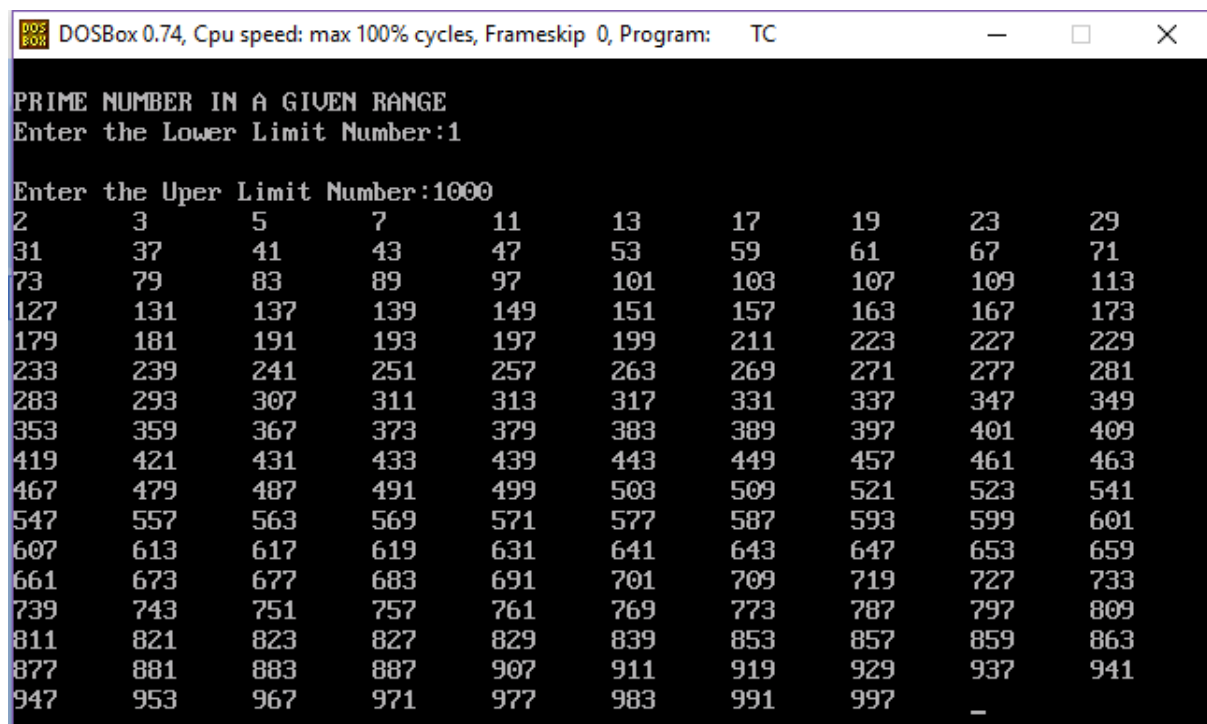
SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
PRIMEIN.CPP
printf("\nPRIME NUMBER IN A GIVEN RANGE");
printf("\nEnter the Lower Limit Number:");
scanf("%d",&nl);
printf("\nEnter the Uper Limit Number:");
scanf("%d",&nu);
for(j=nl; j<=nu; j++)
{
for(i=2; i<=j-1; i++)
if(j%i==0)
break;
if(i==j)
printf("%d\t", j);
}
getch();
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
PRIME NUMBER IN A GIVEN RANGE
Enter the Lower Limit Number:1
Enter the Uper Limit Number:1000
2      3      5      7      11     13     17     19     23     29
31     37     41     43     47     53     59     61     67     71
73     79     83     89     97     101    103    107    109    113
127    131    137    139    149    151    157    163    167    173
179    181    191    193    197    199    211    223    227    229
233    239    241    251    257    263    269    271    277    281
283    293    307    311    313    317    331    337    347    349
353    359    367    373    379    383    389    397    401    409
419    421    431    433    439    443    449    457    461    463
467    479    487    491    499    503    509    521    523    541
547    557    563    569    571    577    587    593    599    601
607    613    617    619    631    641    643    647    653    659
661    673    677    683    691    701    709    719    727    733
739    743    751    757    761    769    773    787    797    809
811    821    823    827    829    839    853    857    859    863
877    881    883    887    907    911    919    929    937    941
947    953    967    971    977    983    991    997    -
```

PROJECT NUMBER : 28

TITLE OF THE PROJECT :

NEON Number in a given range

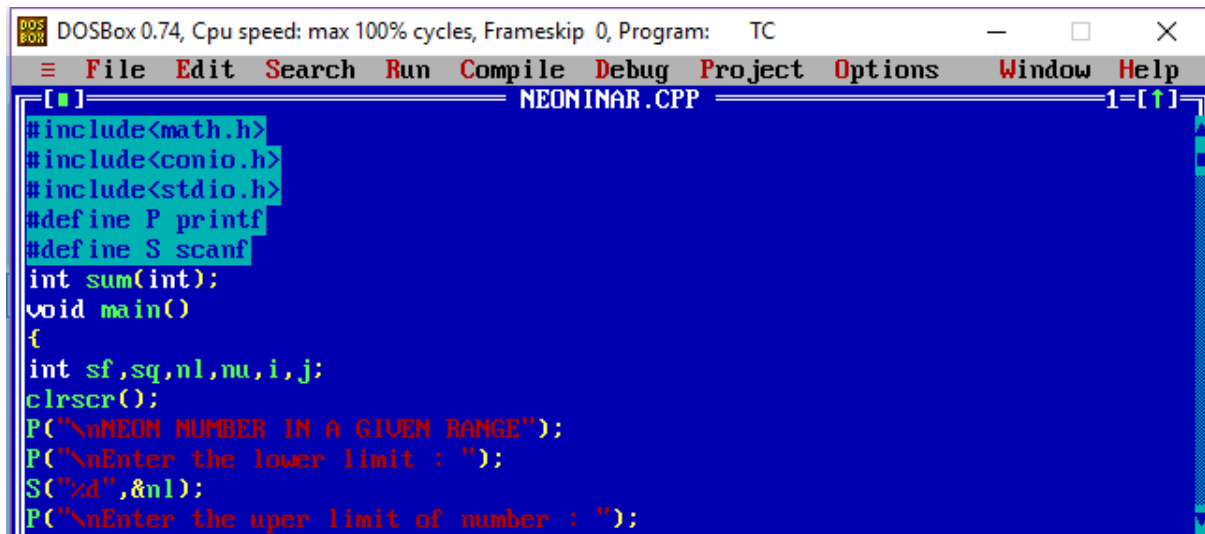
Code -

```
#include<math.h>
#include<conio.h>
#include<stdio.h>
#define P printf
#define S scanf
int sum(int);
void main()
{
int sf,sq,nl,nu,i,j;
clrscr();
P("\nNEON NUMBER IN A GIVEN RANGE");
P("\nEnter the lower limit : ");
S("%d",&nl);
P("\nEnter the uper limit of number : ");
S("%d",&nu);
for(i=nl;i<=nu;i++)
{
```

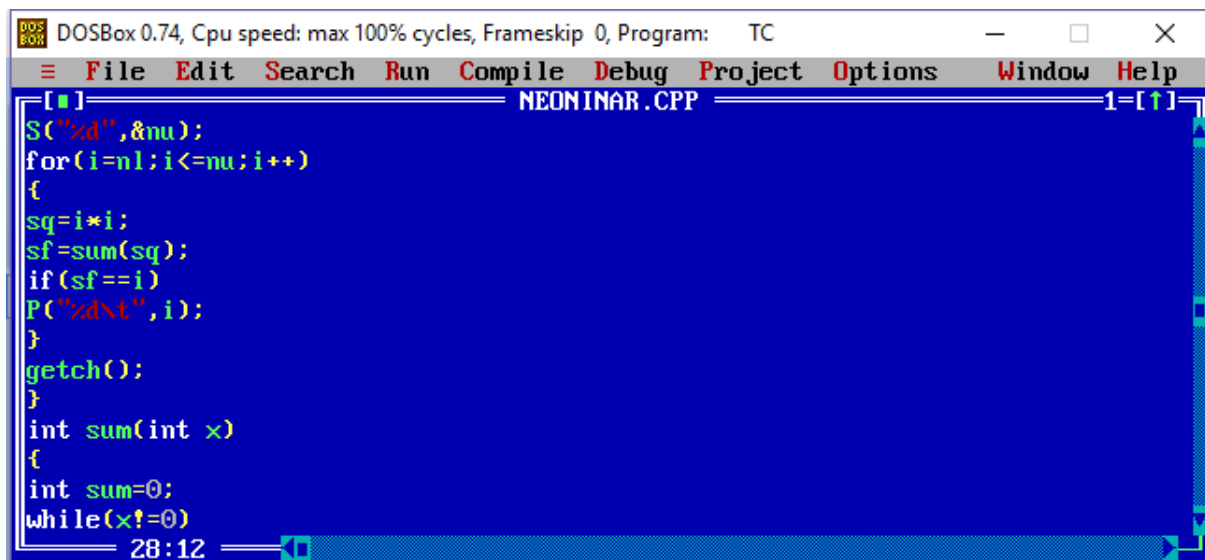
```
sq=i*i;
sf=sum(sq);
if(sf==i)
P("%d\t",i);
}
getch();
}
int sum(int x)
{
int sum=0;
while(x!=0)
{
sum=sum+(x%10);
x=x/10;
}
return(sum);
}
```

SCREENSHOT-

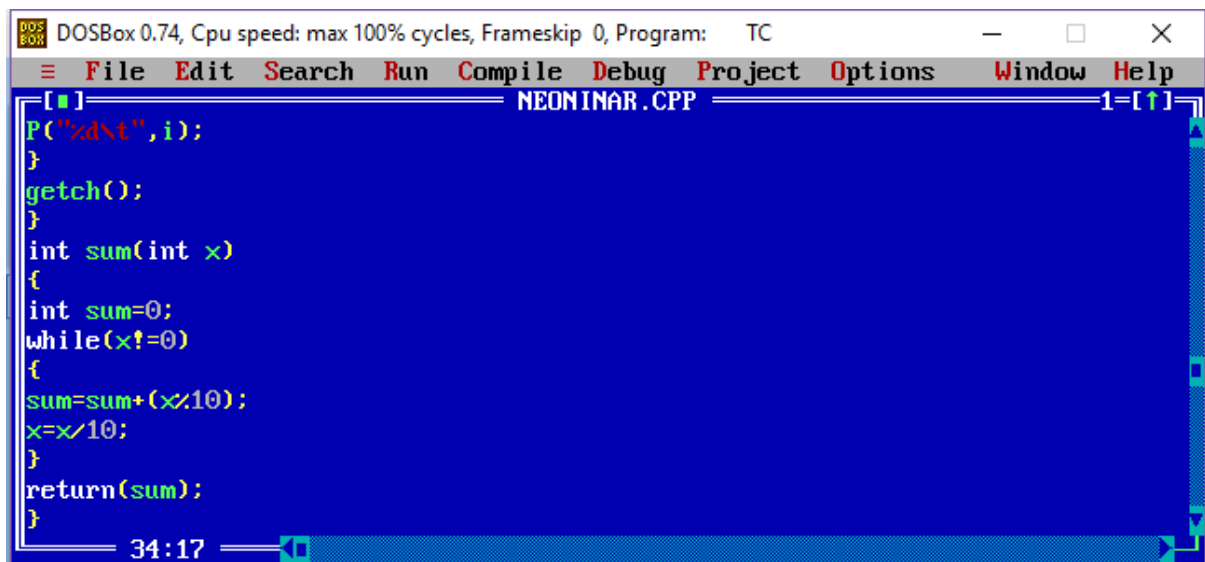
✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] NEONINAR.CPP 1=[↑]
#include<math.h>
#include<conio.h>
#include<stdio.h>
#define P printf
#define S scanf
int sum(int);
void main()
{
    int sf,sq,nl,nu,i,j;
    clrscr();
    P("\nNEON NUMBER IN A GIVEN RANGE");
    P("\nEnter the lower limit : ");
    S("%d",&nl);
    P("\nEnter the uper limit of number : ");
```

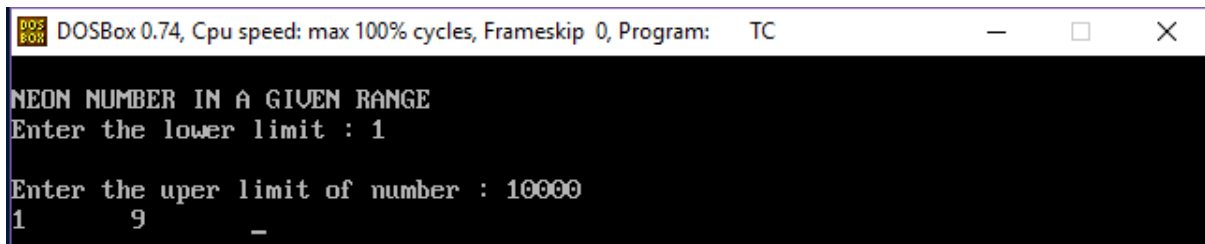


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] NEONINAR.CPP 1=[↑]
S("%d",&nu);
for(i=nl;i<=nu;i++)
{
    sq=i*i;
    sf=sum(sq);
    if(sf==i)
    P("%d\t",i);
}
getch();
}
int sum(int x)
{
    int sum=0;
    while(x!=0)
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] NEONINAR.CPP 1=[↑]
P("%d\t",i);
}
getch();
}
int sum(int x)
{
    int sum=0;
    while(x!=0)
    {
        sum=sum+(x%10);
        x=x/10;
    }
    return(sum);
}
```

✓ OUTPUT-

A screenshot of a DOSBox window. The title bar reads "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC". The window contains a black terminal area with white text. The text reads: "NEON NUMBER IN A GIVEN RANGE", "Enter the lower limit : 1", "Enter the uper limit of number : 10000", and then a line with "1", "9", and a hyphen "—" spaced out.

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
NEON NUMBER IN A GIVEN RANGE
Enter the lower limit : 1
Enter the uper limit of number : 10000
1      9      -
```

PROJECT NUMBER : 29

TITLE OF THE PROJECT :

Neon Number

Code -

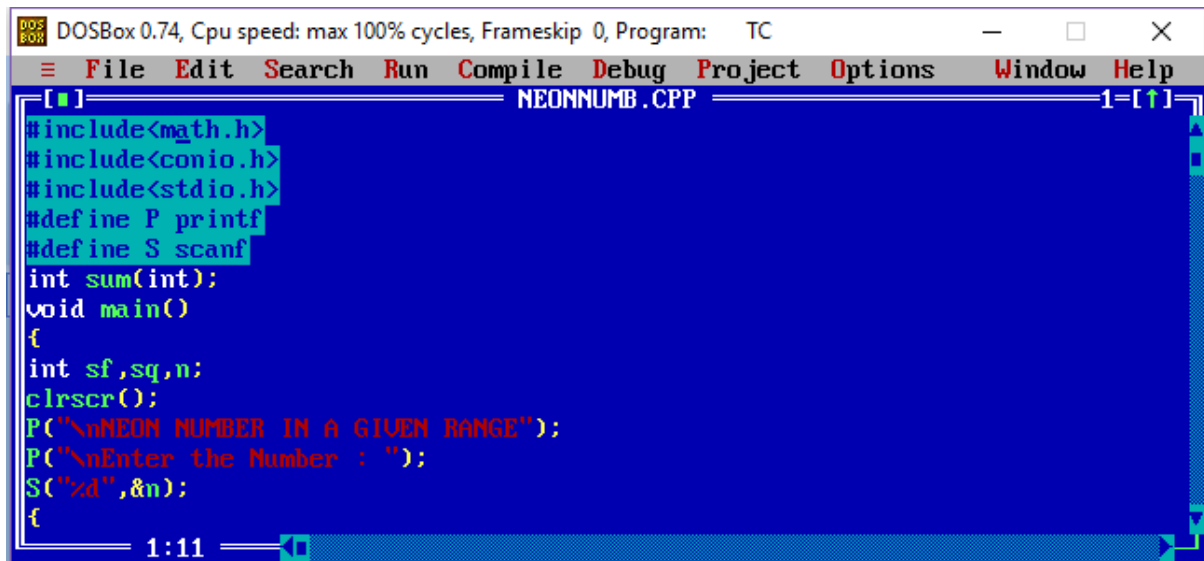
```
#include<math.h>
#include<conio.h>
#include<stdio.h>
#define P printf
#define S scanf
int sum(int);
void main()
{
int sf,sq,n;
clrscr();
P("\nNEON NUMBER IN A GIVEN RANGE");
P("\nEnter the Number : ");
S("%d",&n);
{
sq=n*n;
sf=sum(sq);
if(sf==n)
```



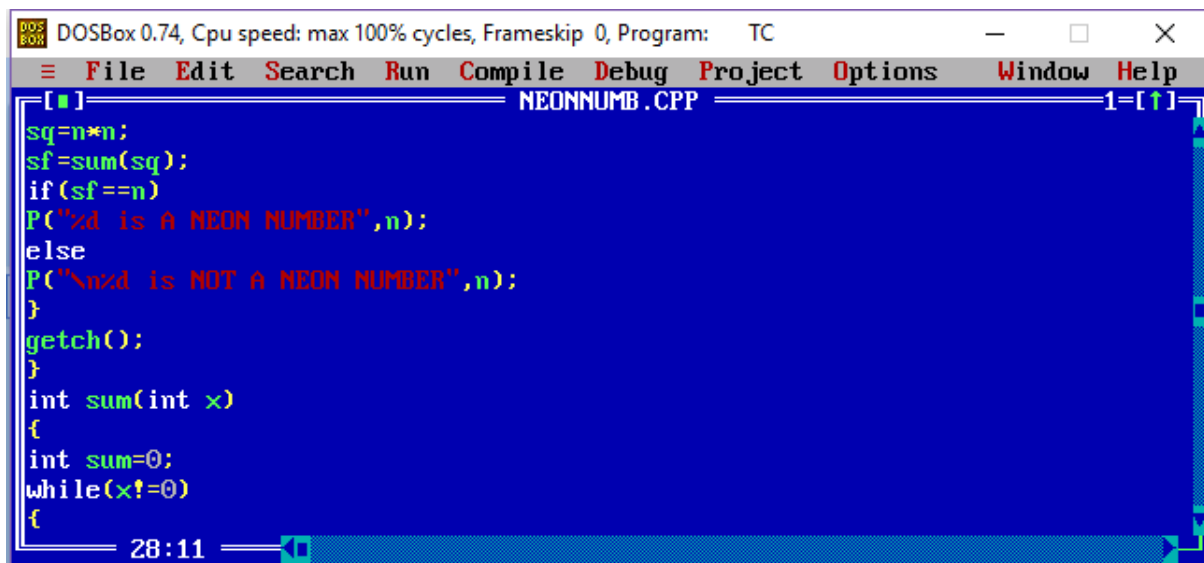
```
P("%d is A NEON NUMBER",n);  
else  
P("\n%d is NOT A NEON NUMBER",n);  
}  
getch();  
}  
int sum(int x)  
{  
int sum=0;  
while(x!=0)  
{  
sum=sum+(x%10);  
x=x/10;  
}  
return(sum);  
}
```

SCREENSHOT-

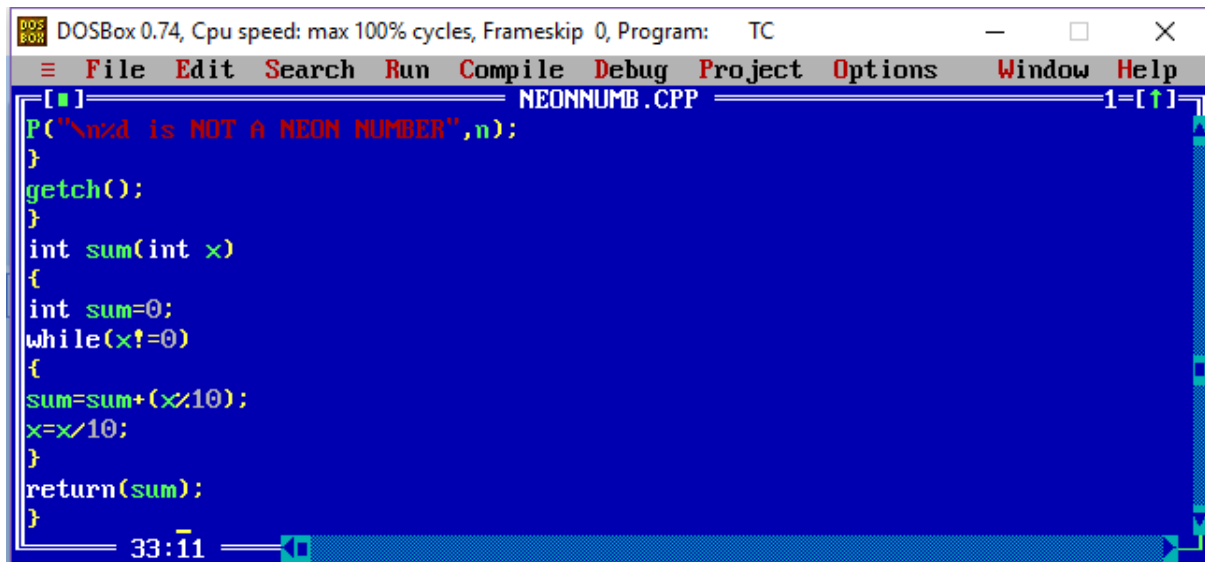
✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] NEONNUMB.CPP 1=[↑]
#include<math.h>
#include<conio.h>
#include<stdio.h>
#define P printf
#define S scanf
int sum(int);
void main()
{
int sf,sq,n;
clrscr();
P("\nNEON NUMBER IN A GIVEN RANGE");
P("\nEnter the Number : ");
S("%d",&n);
{
1:11
```

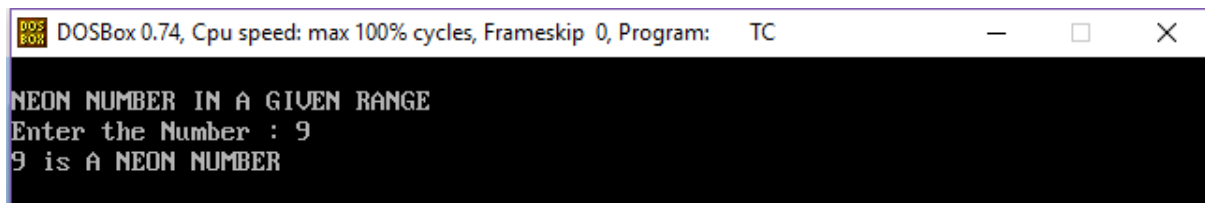


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[ ] NEONNUMB.CPP 1=[↑]
sq=n*n;
sf=sum(sq);
if(sf==n)
P("%d is A NEON NUMBER",n);
else
P("%d is NOT A NEON NUMBER",n);
}
getch();
}
int sum(int x)
{
int sum=0;
while(x!=0)
{
28:11
```

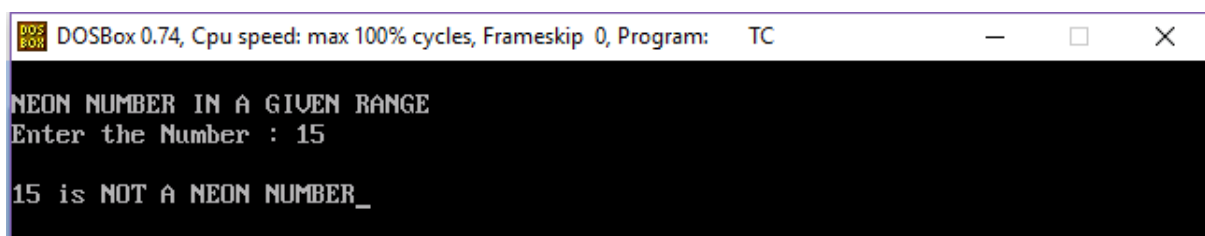


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
[■] NEONNUMB.CPP 1=[↑]
P(\"\\n%d is NOT A NEON NUMBER\",n);
}
getch();
}
int sum(int x)
{
int sum=0;
while(x!=0)
{
sum=sum+(x%10);
x=x/10;
}
return(sum);
}
33:11
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
NEON NUMBER IN A GIVEN RANGE
Enter the Number : 9
9 is A NEON NUMBER
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
NEON NUMBER IN A GIVEN RANGE
Enter the Number : 15
15 is NOT A NEON NUMBER_
```

PROJECT NUMBER : 30

TITLE OF THE PROJECT :

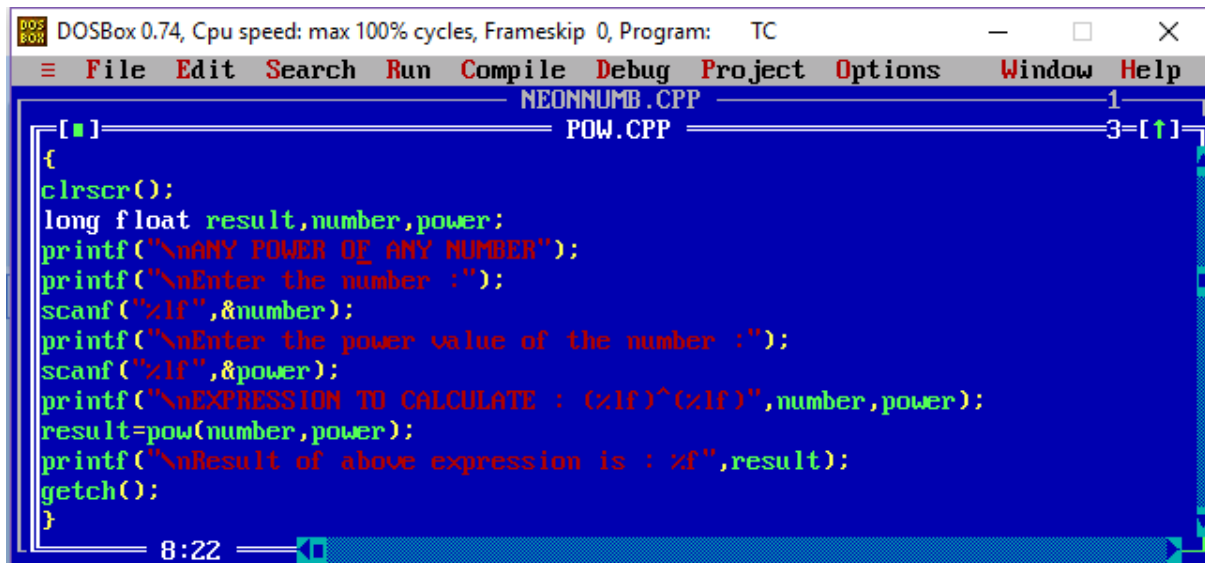
Any Power of any number

Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{clrscr();
long float result,number,power;
printf("\nANY POWER OF ANY NUMBER");
printf("\nEnter the number :");
scanf("%lf",&number);
printf("\nEnter the power value of the number :");
scanf("%lf",&power);
printf("\nEXPRESSION TO CALCULATE :
(%lf)^(%lf)",number,power);
result=pow(number,power);
printf("\nResult of above expression is : %f",result);
getch();
}
```

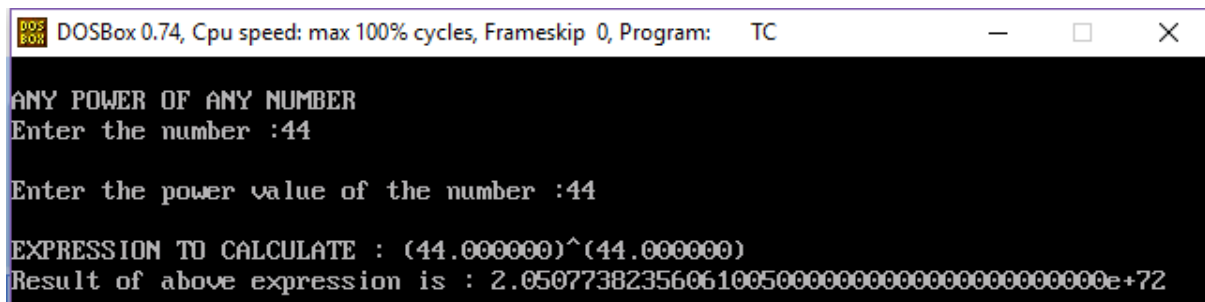
SCREENSHOT-

✓ CODE-

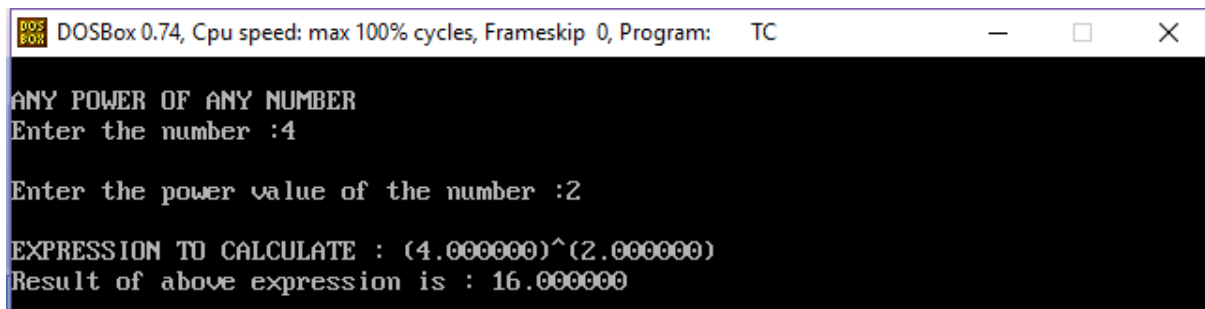


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
NEONNUMB.CPP 1
POW.CPP 3=[↑]
{
clrscr();
long float result,number,power;
printf("\nANY POWER OF ANY NUMBER");
printf("\nEnter the number :");
scanf("%lf",&number);
printf("\nEnter the power value of the number :");
scanf("%lf",&power);
printf("\nEXPRESSION TO CALCULATE : (%lf)^(%lf)",number,power);
result=pow(number,power);
printf("\nResult of above expression is : %f",result);
getch();
}
8:22
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
ANY POWER OF ANY NUMBER
Enter the number :44
Enter the power value of the number :44
EXPRESSION TO CALCULATE : (44.000000)^(44.000000)
Result of above expression is : 2.050773823560610050000000000000000000000000e+72
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
ANY POWER OF ANY NUMBER
Enter the number :4
Enter the power value of the number :2
EXPRESSION TO CALCULATE : (4.000000)^(2.000000)
Result of above expression is : 16.000000
```

PROJECT NUMBER : 31

TITLE OF THE PROJECT :

Sum of n matrix

Code-

SCREENSHOT-

✓ CODE-

✓ OUTPUT-

PROJECT NUMBER : 32

TITLE OF THE PROJECT :

Transpose of a matrix

Code-

SCREENSHOT-

✓ CODE-

✓ OUTPUT-

PROJECT NUMBER : 33

TITLE OF THE PROJECT :

Multiplication of a matrix

Code-

SCREENSHOT-

✓ CODE-

✓ OUTPUT-

PROJECT NUMBER : 34

TITLE OF THE PROJECT :

Subtraction of a matrix

Code-

SCREENSHOT-

✓ CODE-

✓ OUTPUT-

PROJECT NUMBER : 35

TITLE OF THE PROJECT :

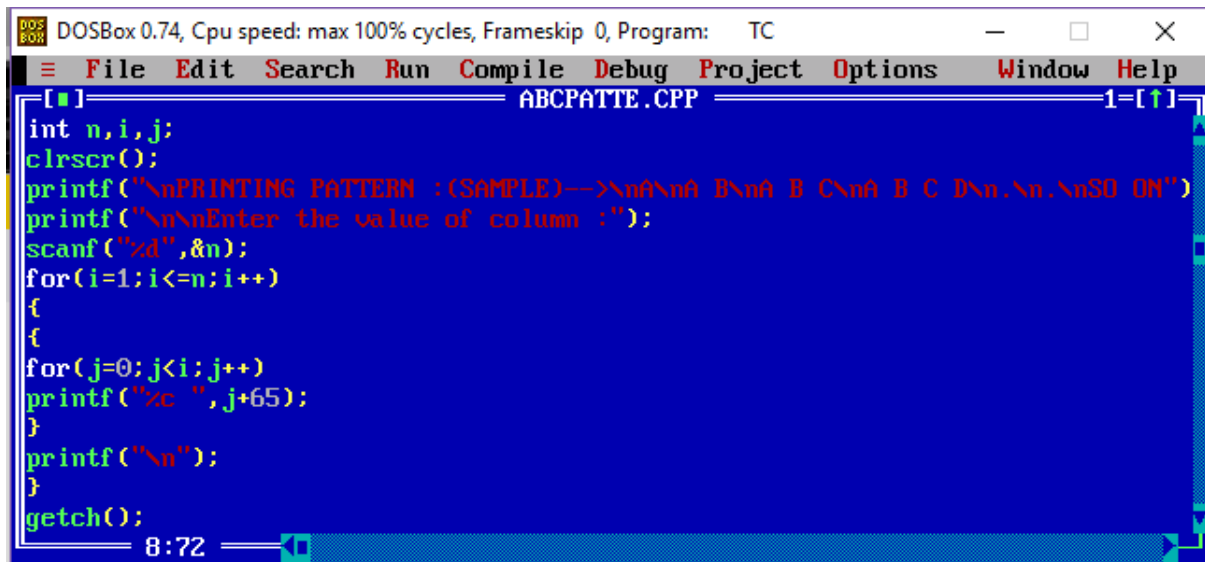
Character Pattern

Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
int n,i,j;
clrscr();
printf("\nPRINTING PATTERN :(SAMPLE)-->\nA\nA B\nA
B C\nA B C D\n.\n.\nSO ON");
printf("\n\nEnter the value of column :");
scanf("%d",&n);
for(i=1;i<=n;i++)
{{for(j=0;j<i;j++)
printf("%c ",j+65);
}
printf("\n");}
getch();}
```

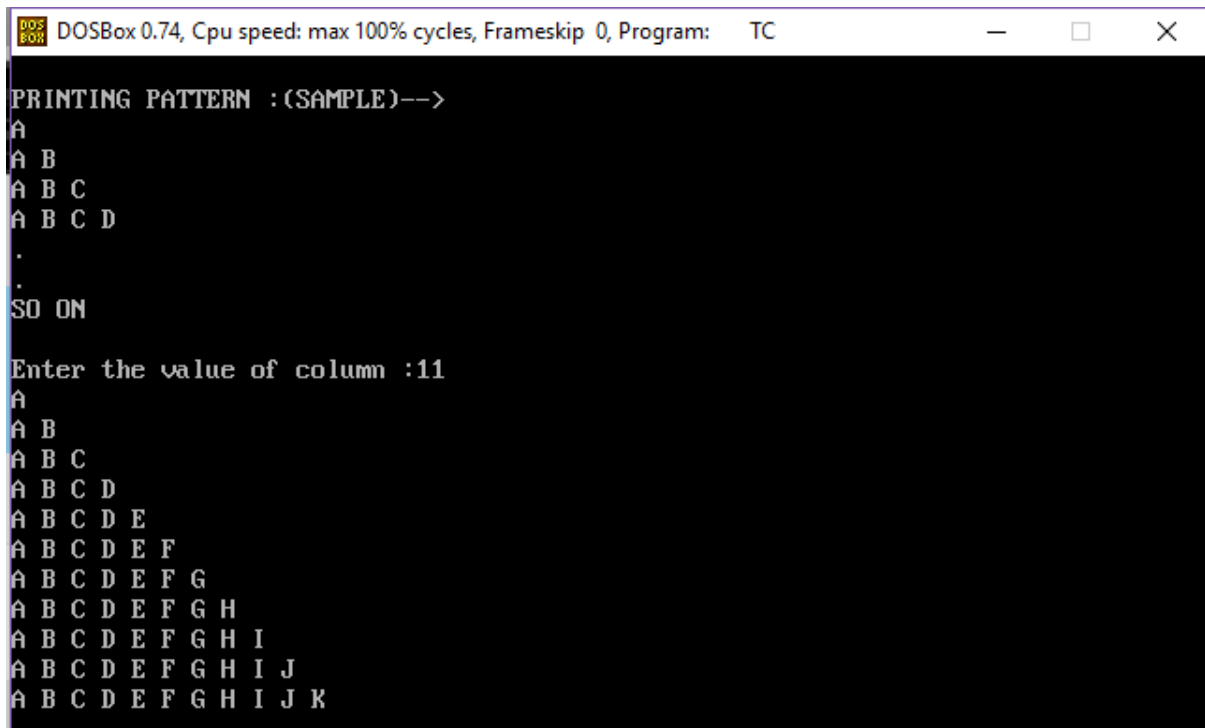
SCREENSHOT-

✓ CODE-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
ABCPATTE.CPP
int n,i,j;
clrscr();
printf("\nPRINTING PATTERN :(SAMPLE)-->\nA\nA B\nA B C\nA B C D\n.\n.\nSO ON");
printf("\n\nEnter the value of column :");
scanf("%d",&n);
for(i=1;i<=n;i++)
{
for(j=0;j<i;j++)
printf("%c ",j+65);
printf("\n");
}
getch();
8:72
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
PRINTING PATTERN :(SAMPLE)-->
A
A B
A B C
A B C D
.
.
SO ON

Enter the value of column :11
A
A B
A B C
A B C D
A B C D E
A B C D E F
A B C D E F G
A B C D E F G H
A B C D E F G H I
A B C D E F G H I J
A B C D E F G H I J K
```

PROJECT NUMBER : 35

TITLE OF THE PROJECT :

Fibonacci Series

Code -

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
int fab(int);
void main()
{
clrscr();
int i,n,c=0;
printf("\nFIBONACCI SERIES");
printf("\nEnter the number upto which pattern will be
printed :");
scanf("%d",&n);
for(i=1;i<=n;i++)
{
int fab(int c);

printf("%d\t",fab(c));
c++;
```



```
}
```

```
getch();
```

```
}
```

```
int fab(int z)
```

```
{
```

```
if(z==1)
```

```
return 1;
```

```
else if(z==0)
```

```
return 0;
```

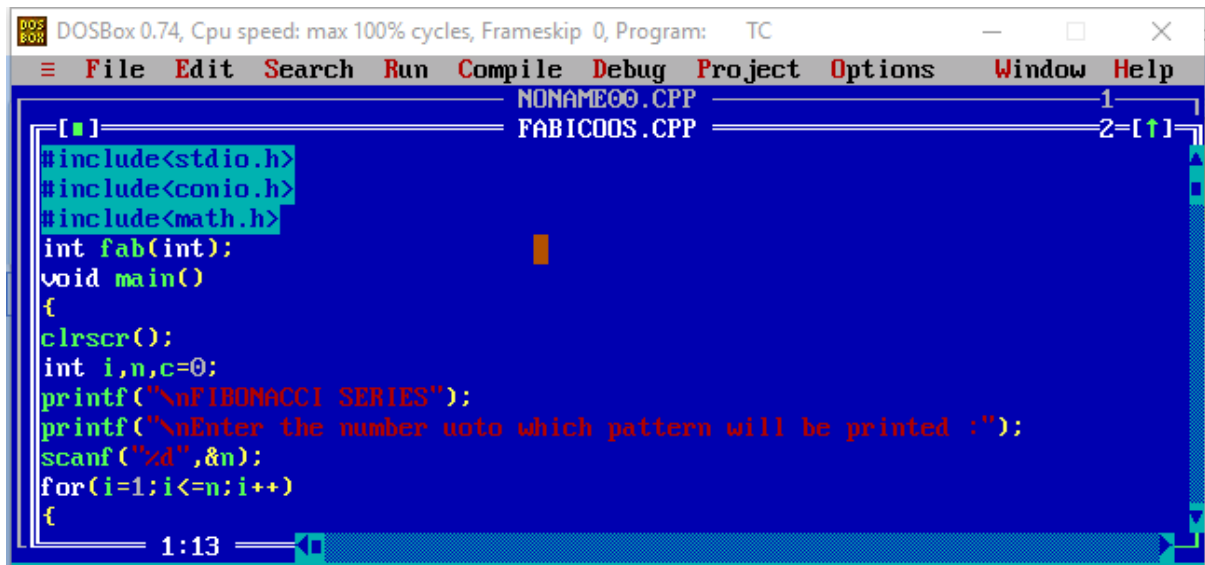
```
else
```

```
return(fab(z-1)+fab(z-2));
```

```
}
```

SCREENSHOT-

✓ CODE-



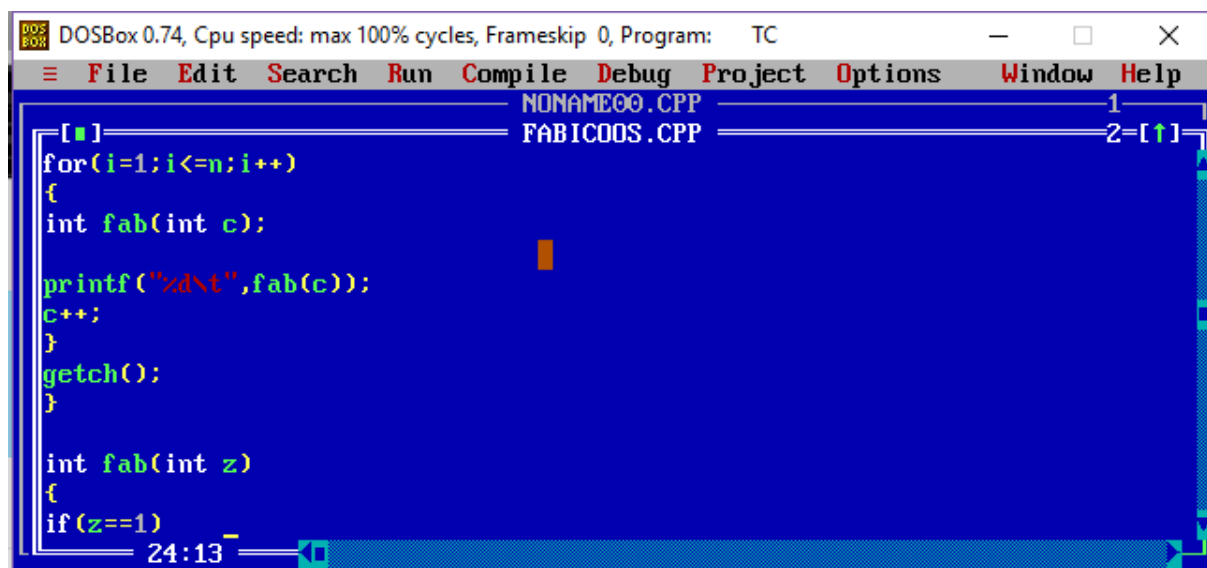
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

File Edit Search Run Compile Debug Project Options Window Help

NONAME00.CPP 1
FABICOOS.CPP 2=[↑]

```
[■]
#include<stdio.h>
#include<conio.h>
#include<math.h>
int fab(int);
void main()
{
clrscr();
int i,n,c=0;
printf("\nFIBONACCI SERIES");
printf("\nEnter the number upto which pattern will be printed :");
scanf("%d",&n);
for(i=1;i<=n;i++)
{
```

1:13



DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC

File Edit Search Run Compile Debug Project Options Window Help

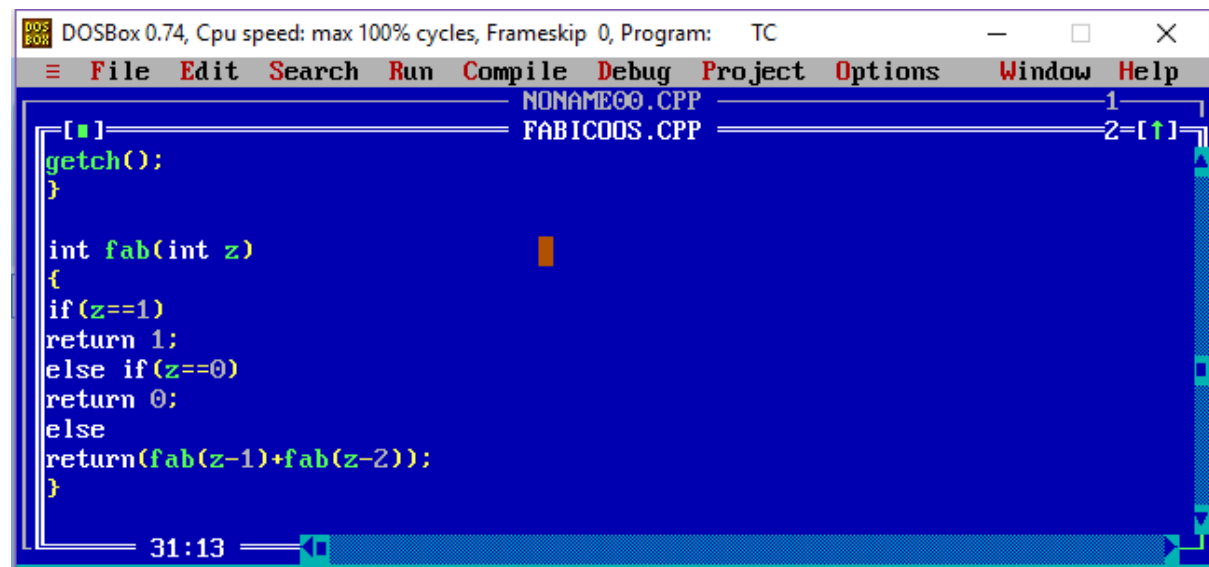
NONAME00.CPP 1
FABICOOS.CPP 2=[↑]

```
[■]
for(i=1;i<=n;i++)
{
int fab(int c);

printf("%d\t",fab(c));
c++;
}
getch();
}

int fab(int z)
{
if(z==1)
```

24:13

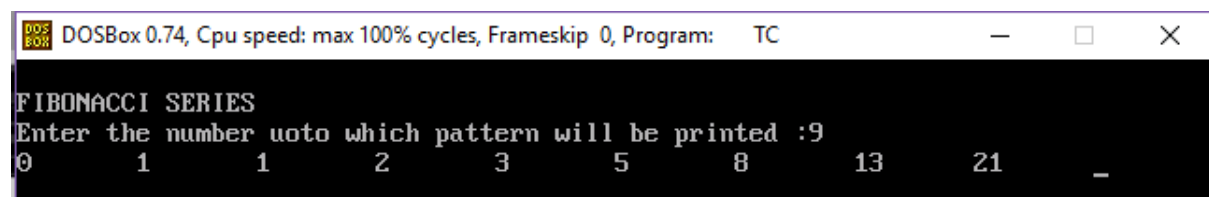


```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
File Edit Search Run Compile Debug Project Options Window Help
NONAME00.CPP 1
FABICOOS.CPP 2=[↑]
[■]
getch();
}

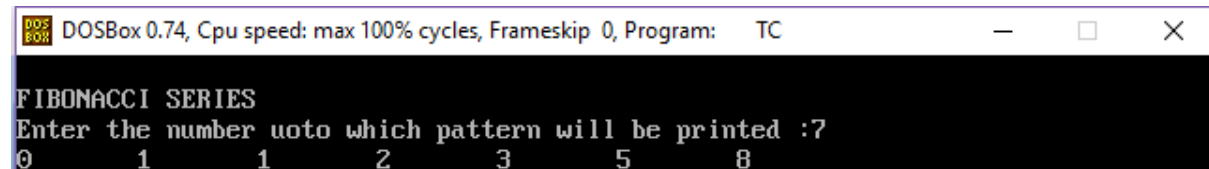
int fab(int z)
{
if (z==1)
return 1;
else if (z==0)
return 0;
else
return (fab(z-1)+fab(z-2));
}

31:13
```

✓ OUTPUT-



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
FIBONACCI SERIES
Enter the number upto which pattern will be printed :9
0 1 1 2 3 5 8 13 21
```



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
FIBONACCI SERIES
Enter the number upto which pattern will be printed :7
0 1 1 2 3 5 8
```

PROJECT NUMBER : 36

TITLE OF THE PROJECT :

F

Code -

SCREENSHOT-

✓ CODE-

✓ OUTPUT-