PATUAKHALI SCIENCE AND TECHNOLOGY UNIVERSITY

Course Code: CIT-112

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Chapter 5

Managing input and output operators.

5.1 (b) double quote

5.2 (b) comma.

5.3 (d) both 2 and 3.

5.4 (d) All above are truth.

5.5 (d) All the above

True or false.

(a) False.

(b) False.

(c) True.

(d) False.

(e) False.

(f) False

(g) True.

(h) false.

(i) true.

(j) true.

(k) true.

Fill in the blanks.

(a) Format

(b) %.lf

(c) <ctype.h>

(d) format specifier.

(e) %.x

(h) wo

(i) words

(j) %e

(k) %.c and %.s.

(l)

Debugging exerci..

5.1 (a) & city.

(b) & city, & amount.

(c) "a%f, a%.d"

(d) "\n a%f".

(e) & code, & Root.

5.3) (a) getchar is use to scan or read all the character from the user and scanf function is only for read one character.

(b) %s reads a string and on the other hand %c reads or writes a single character.

(c) %f print a floating point number without exponent and %g print a floating point value either e type or f type depending on.

(d) %s can print one string given by the user and %[ ] read a string of words.

(e) %e print a floating point value with in exponent form and %f read a floating point value without exponent.

5.4) (a) %d, %c, %d. (b) %d, %f, %x

(c) %d, %d, %d (d) %d, %s, %d.

5.5 (a) 10 x 123

(b) 1234 x 1.23

(c) 1234 456.00

(d) 1234" 00123.40"

(e) 1020 2371584.

5.6 (a) 1988, x

(b) x, 1988.

(c) 1988 x

(d) x 1988.

5.7 (a) 1275 235.75

(b) 1275
-235.740000.

(c) 36576 790980.

(d) 1275 xxxx-235.74

(e) CAMBRIDGE.

(f) 1275 -10d 104-15s.

5.8] (a) there is no value assign in those variables year, amount.

(b) \n is out of double quote.

(c) " symble start but not end in the following printf statement.

(d) no value assign in amount, code, year variables.

5.9] output : 1988.

5.10] By including single quotation over multip character we can use getchar() function.

5.11] By including single quotation over multi character we can use putchar() function

5.12] By scanf function we can read any kind of data like integer, float, double or character.

5.13] It indicates what types of data we take as input.

5.14] (a) value will be right justified.

(b) value will be left justified.

5.15] It is used to show anything on output.

5.16] It indicates what types of data we want to show on output.

5.17] For scanning a data in a varible we need to add & sign in scanf fonction and on the other hand in printf we dont need & sign to get output in printf.

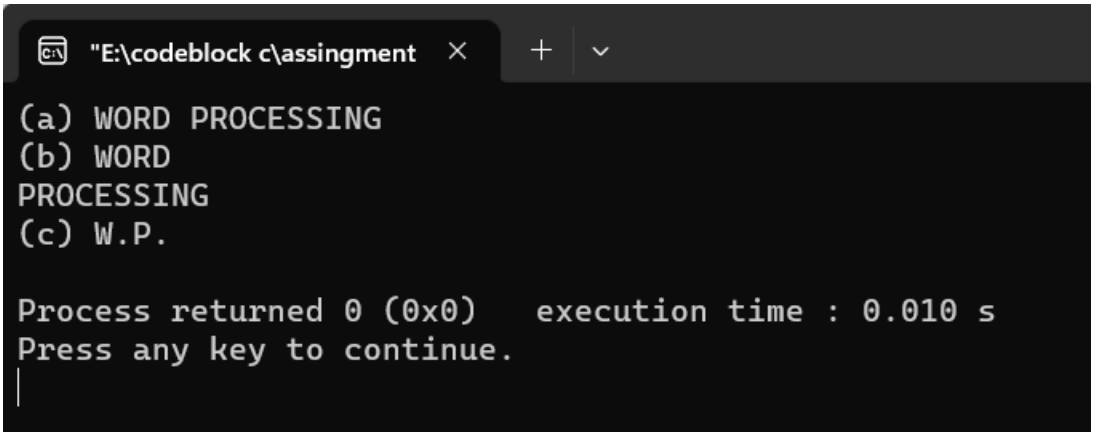
5.18] (a) value will be right justified.

(b) value will be left justified.

Chapter 5

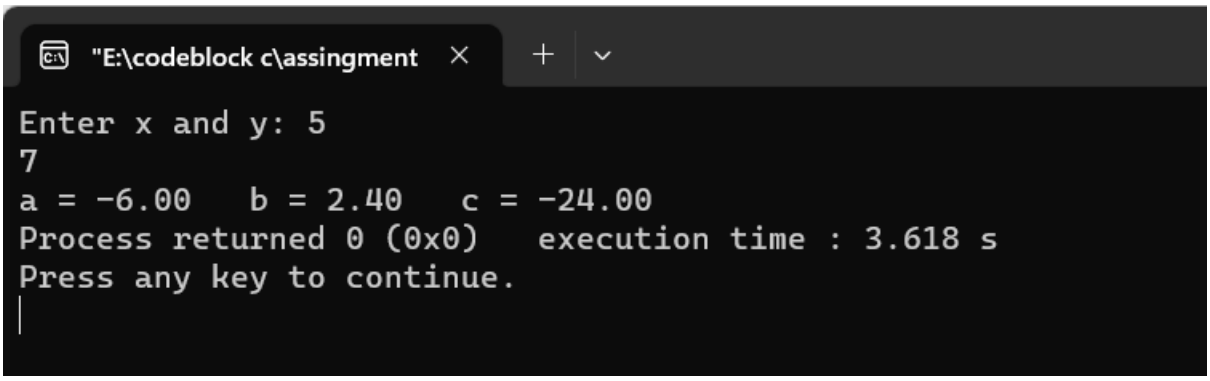
5.1 Given the string "WORDPROCESSING", write a program to read the string from the terminal and display the same in the following formats: (a) WORD PROCESSING (b) WORD PROCESSING (c) W.P

```
#include<stdio.h>

int main()

{

   char x[100]={"WORD"};

   char y[100]={"PROCESSING"};

   printf("(a) %4s %10s\n",x,y);

   printf("(b) %s\n%s\n",x,y);

   printf("(c) %.1s.%.1s.\n",x,y);


}
```



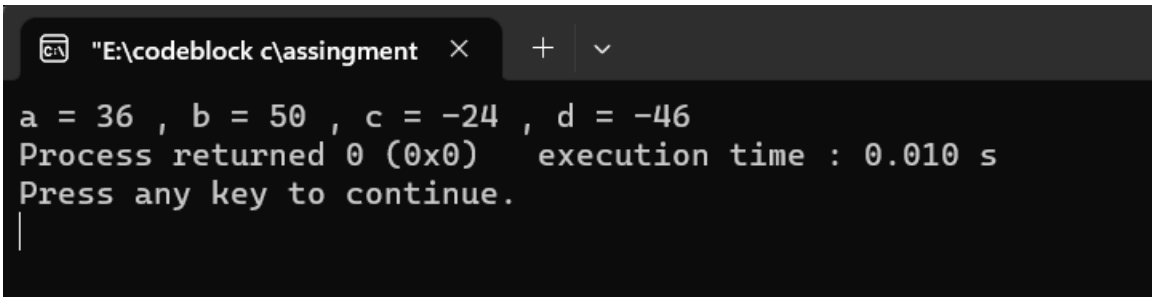
5.2 Write a program to read the values of x and y and print the results of the following expressions in one line: (a) (x+y)/(x–y) (b) (x+y)/2 (c) (x+y)(x–y)

```
#include<stdio.h>

int main()

{

   float a,b,c,x,y;

   printf("Enter x and y: ");

   scanf("%f %f",&x,&y);

   a=(x+y)/(x-y);

   b=(x+y)/(x);

   c=(x+y)*(x-y);

   printf("a = %0.2f   ",a);

   printf("b = %0.2f   ",b);

   printf("c = %0.2f   ",c);


}
```



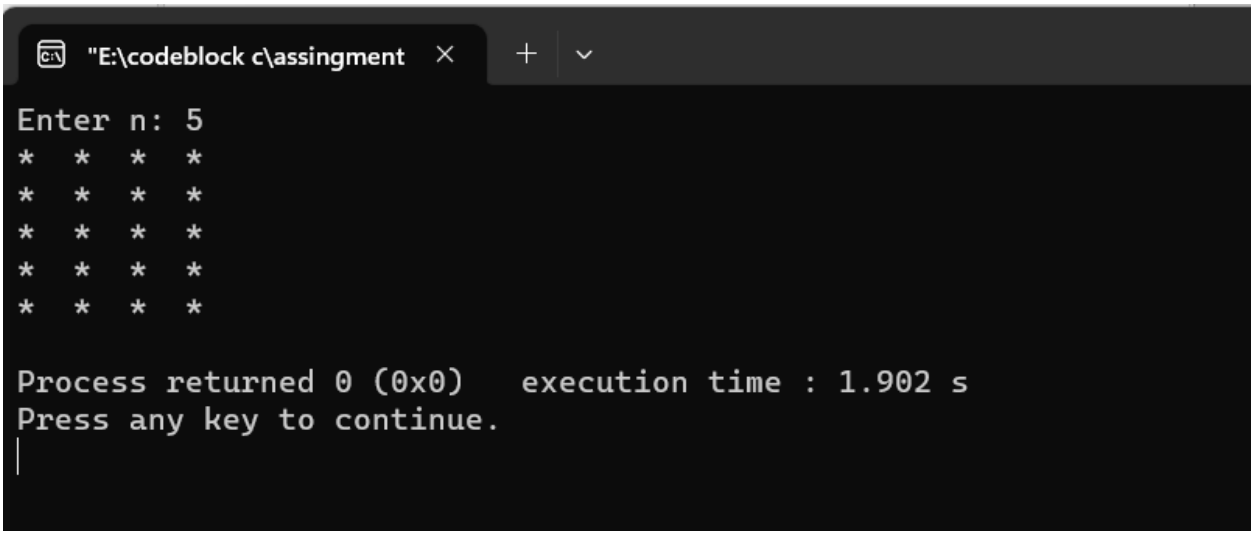
5.3 Write a program to read the following numbers, round them off to the nearest integers and print out the results in integer form: 35.7 50.21 – 23.73 – 46.45

```
#include<stdio.h>

int main()

{

  int a=35.7+.5;

   int b=50.21+.5;

int    c=-(23.73+.5);

  int d=-(46.45+.5);

   printf("a = %d , b = %d , c = %d , d = %d",a,b,c,d);

}
```



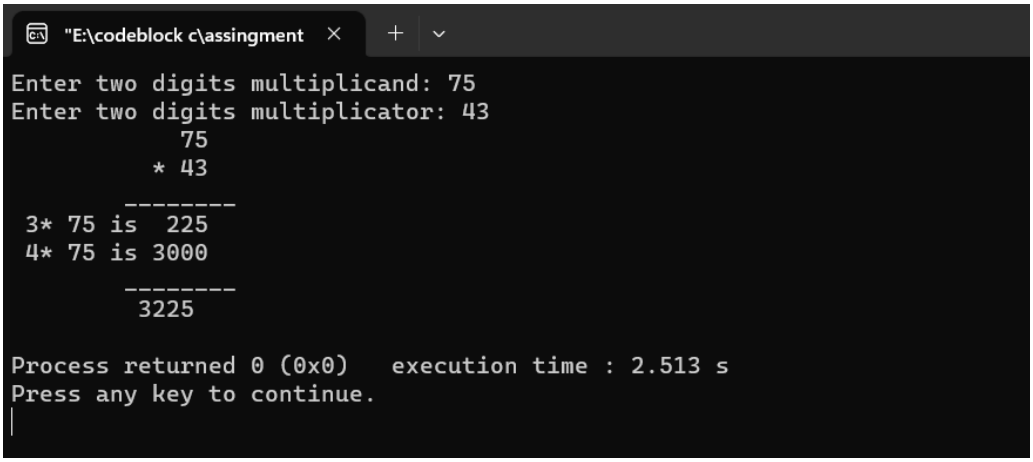
5.4 Write a program which print n number of raw and n number of columb with * symbol

```
#include<stdio.h>
int main()
{
   int i,j,n;
   printf("Enter n: ");
   scanf("%d",&n);

   for(i=1;i<=n;i++)
   {
      for(j=1;j<=4;j++)
         {printf("*  ");
         }
         printf("\n");
   }

}
```



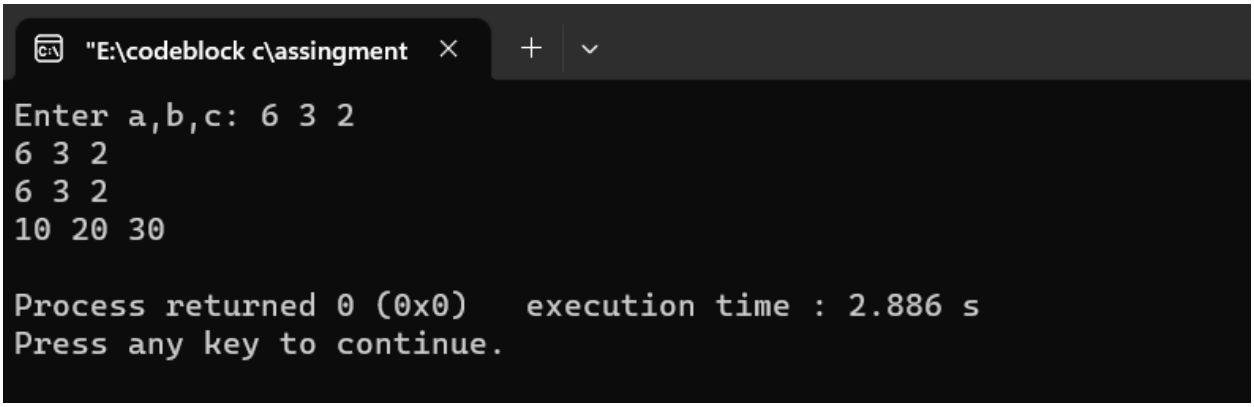
5.5 Write an interactive program to demonstrate the process of multiplication. The program should ask the user to enter two two-digit integers and print the product of integers

```
#include<stdio.h>

int main()

{

   int n,x;

   printf("Enter two digits multiplicand: ");

   scanf("%d",&n);

   printf("Enter two digits multiplicator: ");

   scanf("%d",&x);

   int x1=x%10;

   int x2=x/10;

   int mul=n*x;

   printf("           %d\n",n);

   printf("         * %d\n",x);

   printf("       _________\n");

   printf(" %d* %d is  %d\n",x1,n,x1*n);

   printf(" %d* %d is %d\n",x2,n,x2*n*10);

   printf("       _________\n");

   printf("        %d\n",mul);

}
```



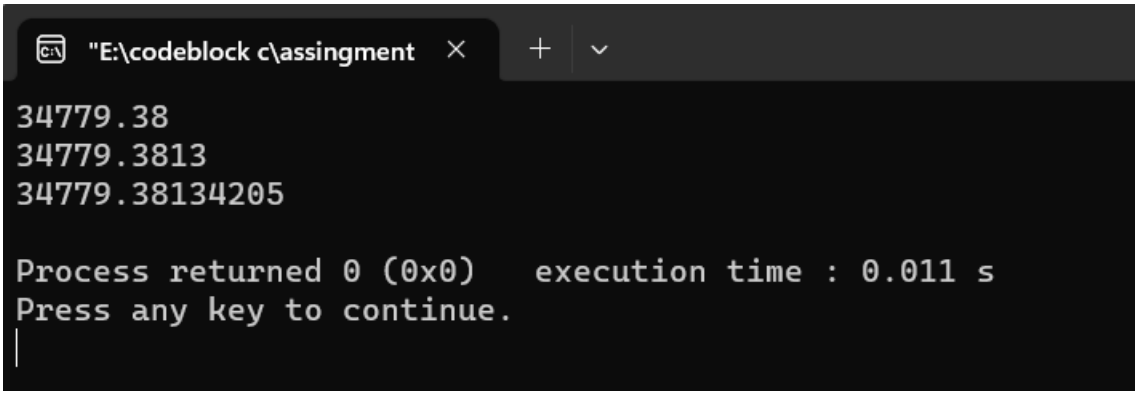
5.6 Write a program to read three integers from the keyboard using one scanf statement and output them on one line using: (a) three printf statements, (b) only one printf with conversion specifiers, and (c) only one printf without conversion specifiers.

```
#include<stdio.h>

int main()

{

   int a,b,c;

   printf("Enter a,b,c: ");

   scanf("%d %d %d",&a,&b,&c);

   printf("%d ",a);

   printf("%d ",b);

   printf("%d \n",c);

   printf("%d %d %d\n",a,b,c);

   printf("10 20 30\n");

}
```



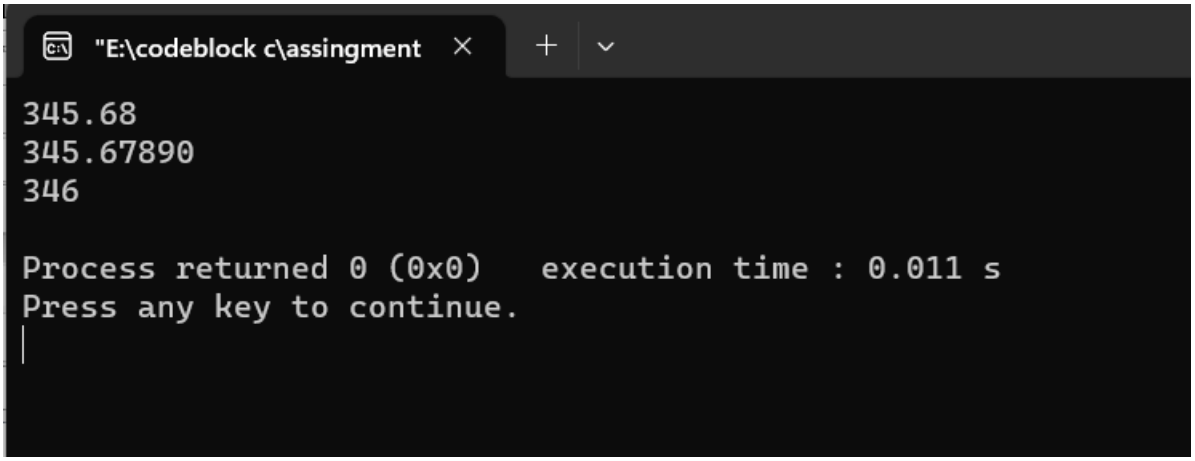
5.7 Write a program that prints the value 10.45678 in exponential format with the following specifications: (a) correct to two decimal places; (b) correct to four decimal places; and (c) correct to eight decimal places.

```
#include<stdio.h>

int main()

{

   double x;

   x=exp(10.45678);

   printf("%0.2lf\n",x);

   printf("%0.4lf\n",x);

   printf("%0.8lf\n",x);


}
```



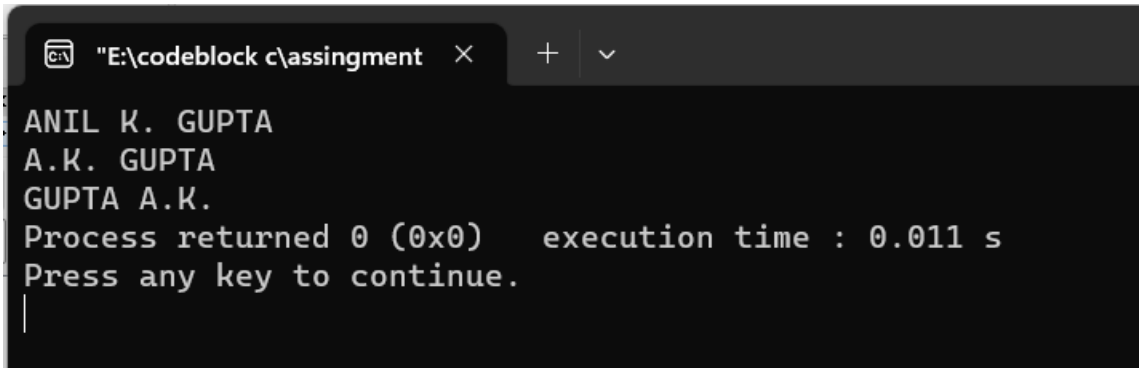
5.8 Write a program to print the value 345.6789 in fixed-point format with the following specifications: (a) correct to two decimal places; (b) correct to five decimal places; and (c) correct to zero decimal places.

```
#include<stdio.h>

 int main()

 {

    double x=345.6789;

    printf("%0.2f\n",x);

    printf("%0.5f\n",x);

    printf("%0.0f\n",x);



 }
```



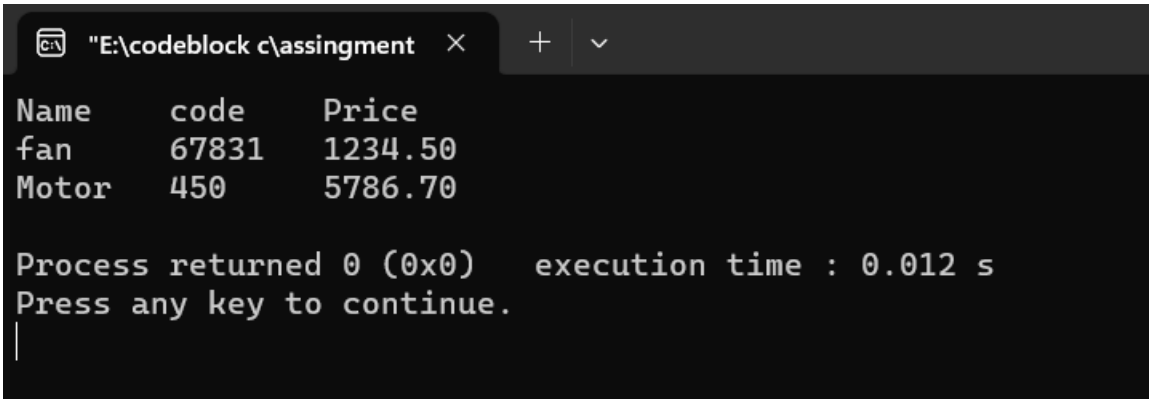
5.9 Write a program to read the name ANIL KUMAR GUPTA in three parts using the scanf statement and to display the same in the following format using the printf statement. 5.3, 5.4 H] (a) ANIL K. GUPTA (b) A.K. GUPTA (c) GUPTA A.K.

```
#include<stdio.h>

int main()

{

   char x[100]={"ANIL"},y[100]={"KUMAR"},z[100]={"GUPTA"};

   printf("%s %.1s. %s\n",x,y,z);

   printf("%0.1s.%0.1s. %s\n",x,y,z);

   printf("%s %0.1s.%0.1s. ",z,x,y);


}
```



5.10 Write a program with name code and price information:

```
#include<stdio.h>
int main()
{
   printf("Name    code    Price\n");
   printf("fan     67831   1234.50\n");
   printf("Motor   450     5786.70\n");

}
```

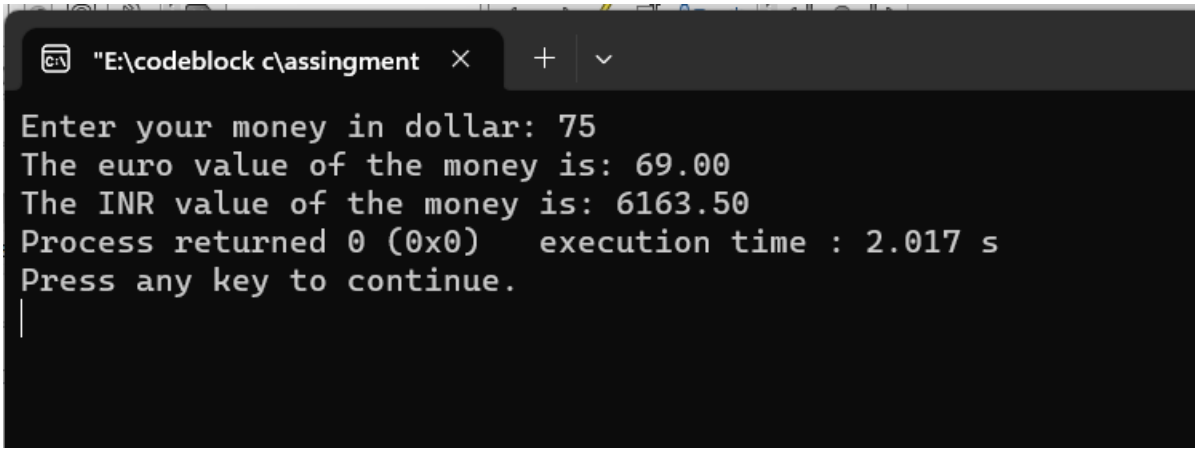


5.11 Problem

5.12 Problem

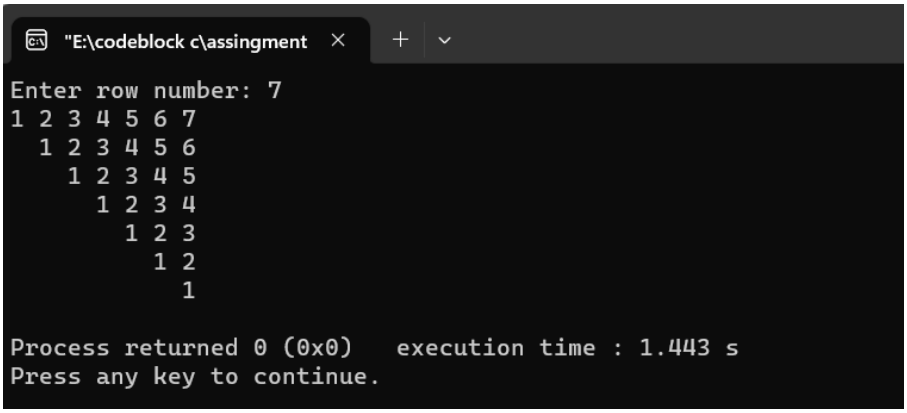
5.13 Write a C program to input a currency value in Dollars and display its equivalent Euro and INR amounts. You may use current exchange rate for conversion purpose.

```
#include<stdio.h>

int main()

{

   float euro,inr,dollars;

   printf("Enter your money in dollar: ");

   scanf("%f",&dollars);

   euro=dollars*0.92;

   inr=dollars*82.18;

   printf("The euro value of the money is: %0.2f\n",euro);

   printf("The INR value of the money is: %0.2f",inr);

}
```



5.14 Write a C program to display a pattern where 1st line will be 1 2 3 …. n than second line will be 1 2 3 …. (n-1) and go on and at last the line will be 1:

```
#include<stdio.h>
int main()
{
   int n,r,c;
   printf("Enter row number: ");
   scanf("%d",&n);
   for(r=n;r>=1;r--)
   {
      for(c=1;c<=n-r;c++)
         {
            printf("  ");
  }
         for(c=1;c<=r;c++)
         {
            printf("%d ",c);
         }
      printf("\n");
   }
}
```



5.15 Write a C program to input an investment amount and compute its fixed deposit cumulative return after 10 years at a rate of interest of 8.75%.

```
#include<stdio.h>

int main()

{

   float r=(8.75/100),p,n=10,i,c;

   printf("Enter your Investment amount: ");

   scanf("%f",&p);

   i=p*n*r;

   //c=fixed deposit cumulative;

   c=i+p;

   printf("fixed deposit cumulative is: %0.2f",c);

}
```