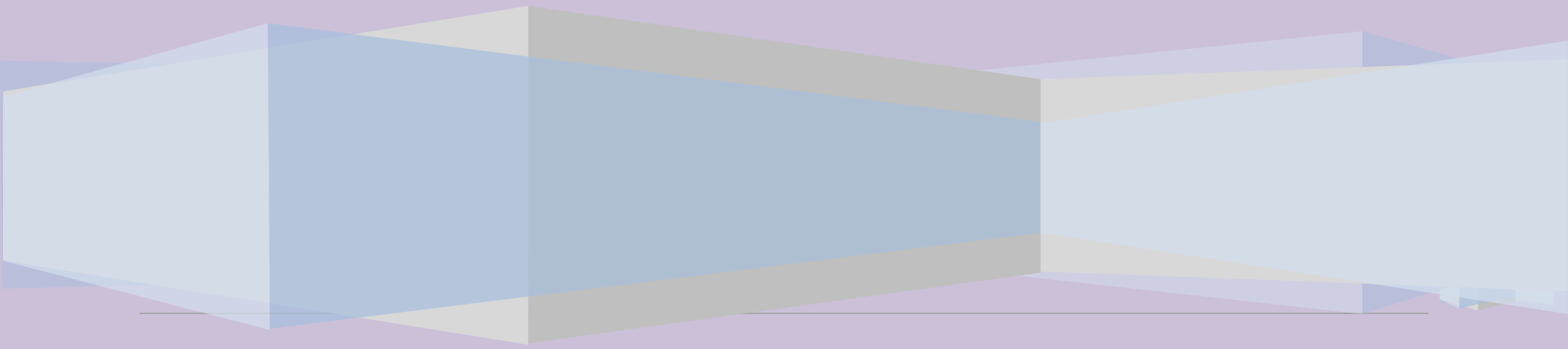
MODULO:- 3.2



1. **WAP to Swap two numbers without using third variable.**

```
#include<stdio.h>

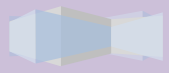
 main()

{
        int num1, num2;
        printf("enter number1 : ");
        scanf("%d",&num1);
        printf("enter number2 :");
        scanf("%d",&num2);

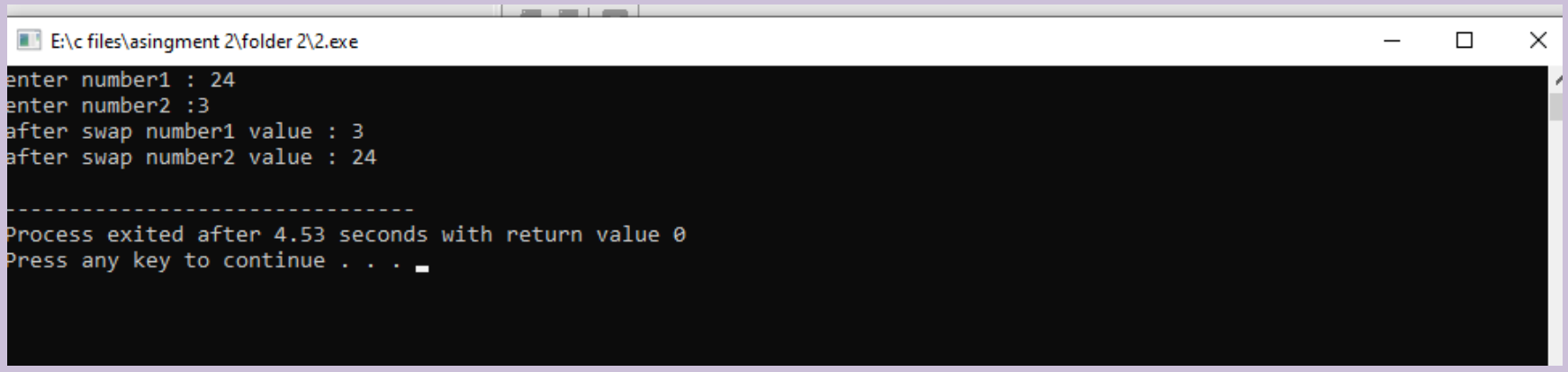
        num1 = num1 + num2;
        num2 = num1 - num2;
        num1 = num1 - num2;

        printf("after swap number1 value : %d \n",num1);
        printf("after swap number2 value : %d \n",num2);

         return 0;
}
```

OUTPUT



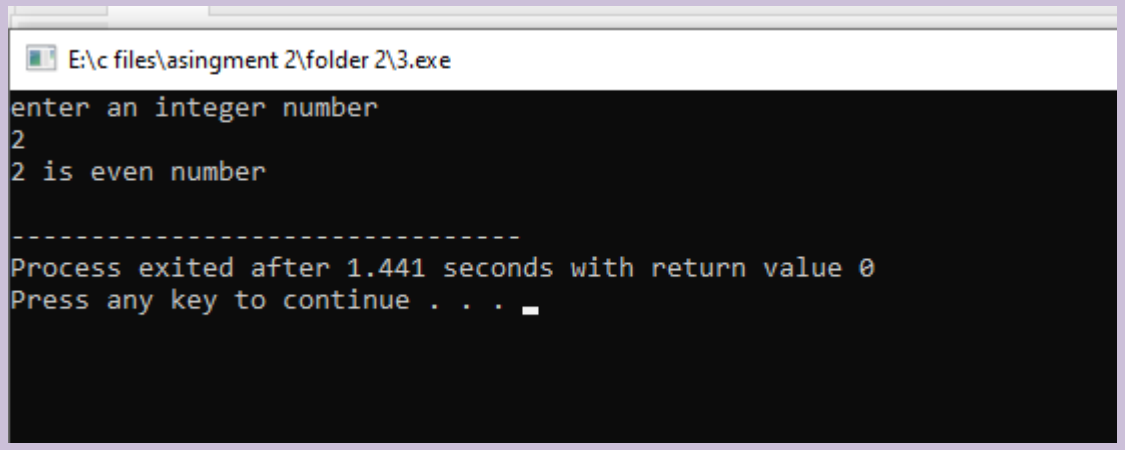
2.WAP to find number is even or odd using ternary operator.

```
#include<stdio.h>
main()
{
        int n;

        printf("enter an integer number \n");
        scanf("%d",&n);
```

```
        (n % 2 == 0) ?
        printf("%d is even number\n",n):
        printf("%d is odd number\n",n);
        return 0;
}
```

OUTPUT



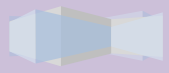
3 . WAP to show .

A) Monday to Sunday using switch case

B) Vowel or Consonant using switch case

A) Monday to Sunday

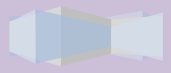
```
#include<stdio.h>
main ()
{
        int week;
        printf("enter week number(1-7): ");
        scanf("%d", &week);
        switch(week)
        {
                case 1 :
                        printf("Monday");
                        break;
                case 2 :
                        printf("Tuesday");
                        break;
                case 3 :
                        printf("Wednesday");
                        break;
                case 4 :
                        printf("Thursday");
```

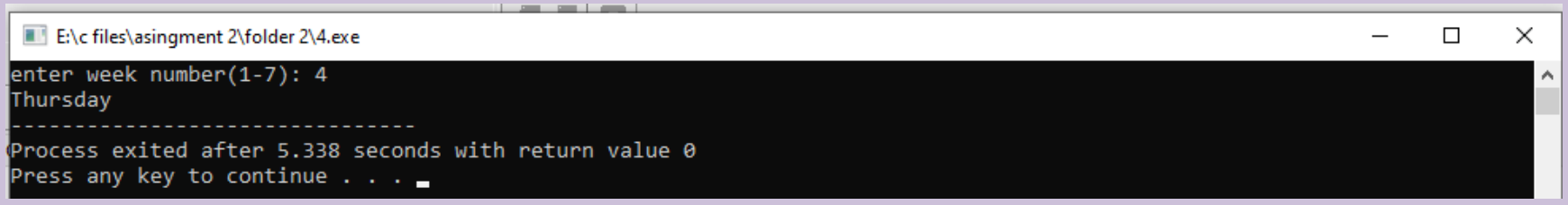



```
            break;
        case 5 :
            printf("Friday");
            break;
        case 6 :
            printf("Saturday");
            break;
        case 7 :
            printf("Sunday");
            break;
        default :
            printf("invalid input ! please enter week number bettwen 1-7,");
    }

    return 0;
}
```

OUTPUT





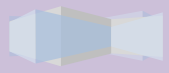
B) Vowel or Consonant

```
#include<stdio.h>
main()
{
        char ch;
        printf("enter any alphabet : ");
        scanf("%c",&ch);

        switch(ch)
        {

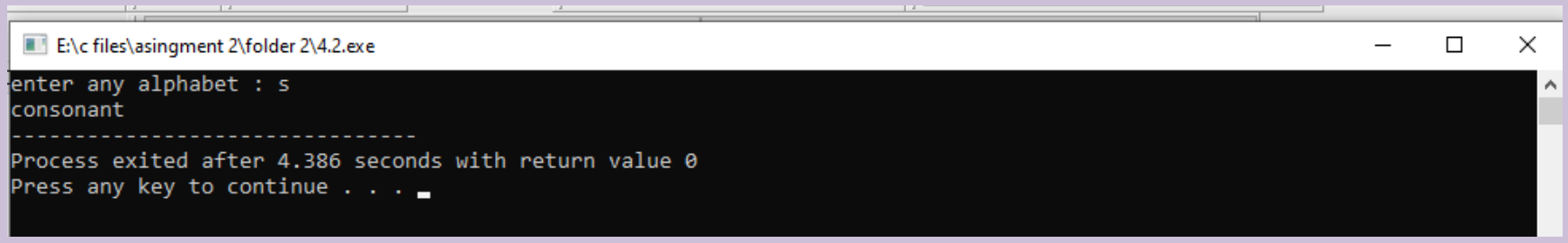
            case 'a' :
                printf("vowel ");
                break;
```

```
case 'e' :
        printf("vowel ");
        break;
case 'i' :
        printf("vowel ");
        break;
case 'o' :
        printf("vowel ");
        break;
case 'u' :
        printf("vowel ");
        break;
case 'A' :
        printf("vowel ");
        break;
case 'E' :
        printf("vowel ");
        break;
case ' O' :
        printf("vowel");
```

```
            break;
        case 'U' :
            printf("vowel ");
            break;
        default :
           printf("consonant");
    }
}
```

OUTPUT



4. LOOPING PROGRAMS.

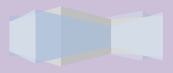
A) WAP to Print 972 to 897 using for loop.

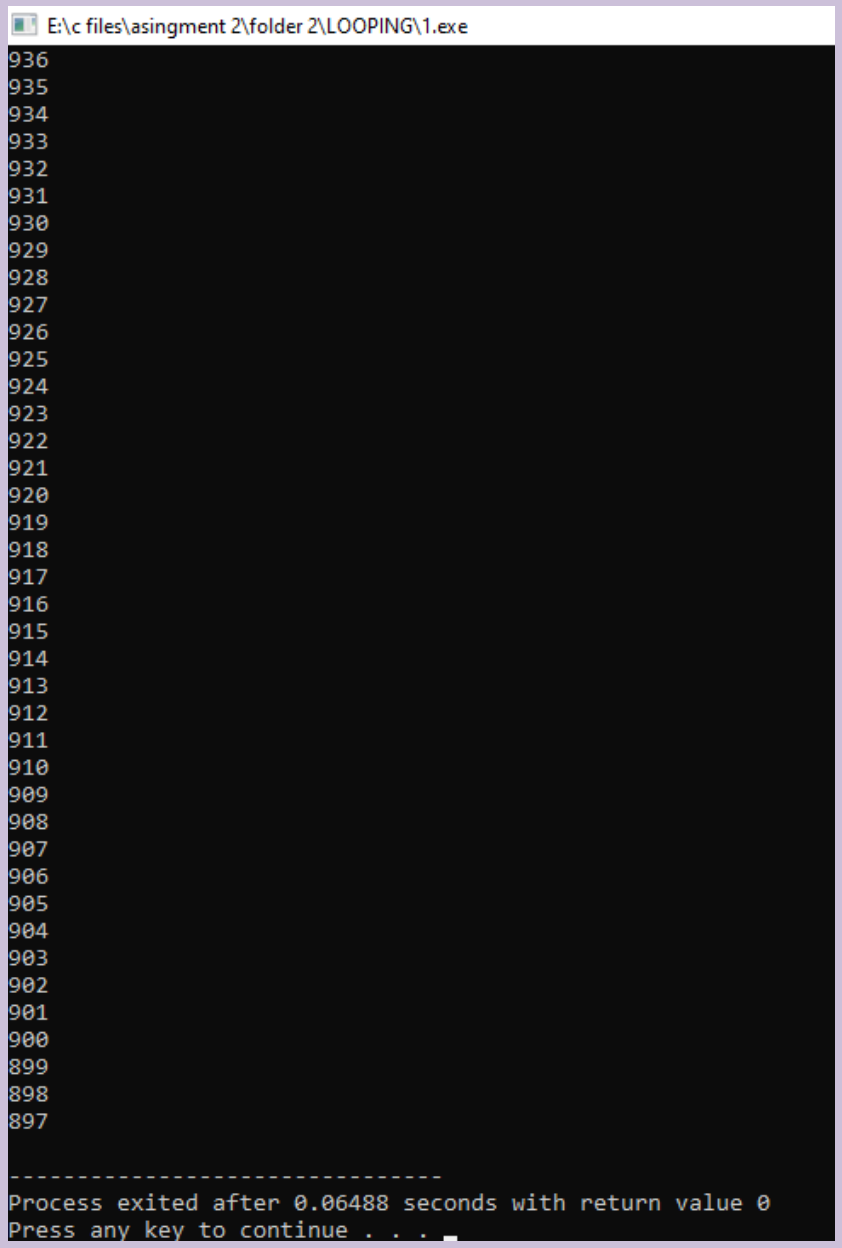
➢

```
#include<stdio.h>
main()
```

```
{
        int i;
        for(i=972; i>=897; i--)
        {
                printf("%d \n",i);
        }
}
```

OUTPUT



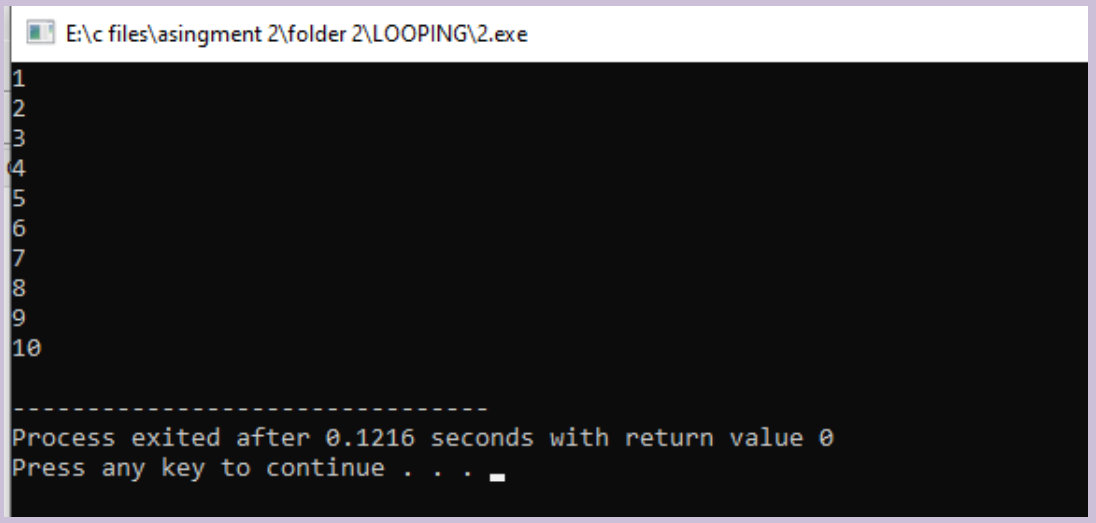

E:\c files\asingment 2\folder 2\LOOPING\1.exe
936
935
934
933
932
931
930
929
928
927
926
925
924
923
922
921
920
919
918
917
916
915
914
913
912
911
910
909
908
907
906
905
904
903
902
901
900
899
898
897

Process exited after 0.06488 seconds with return value 0
Press any key to continue . . .

B) WAP to take 10 no. Input from user and find out….

```
#include<stdio.h>
main()
{
        int a;
        for(a=1;a<=10;a++)
        {
                printf("%d\n",a);
}
}
```

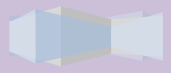
OUTPUT

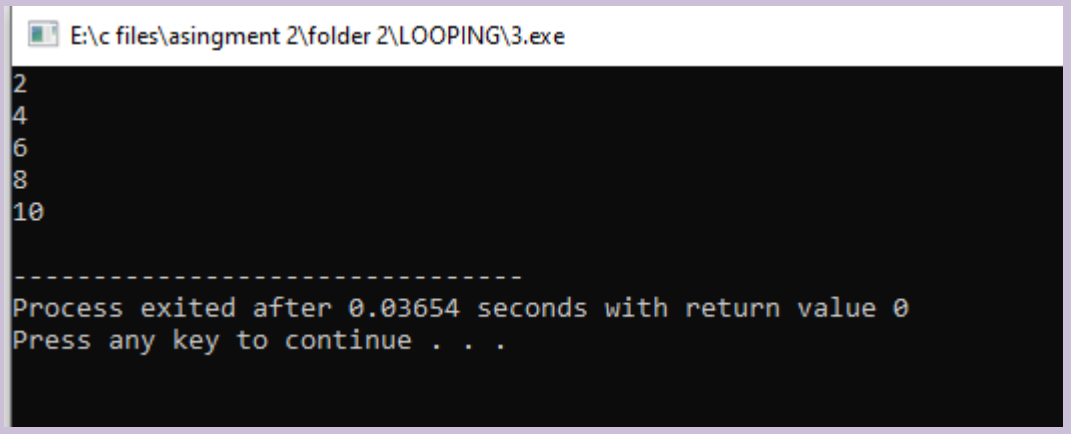


C) HOW many Even numbers are there.

```
#include<stdio.h>
main()
{
        int a;
        for(a=1;a<=10;a++)
        {
                if(a%2==0)
                {
                        printf("%d\n",a);
                 }
        }
}
```

OUTPUT



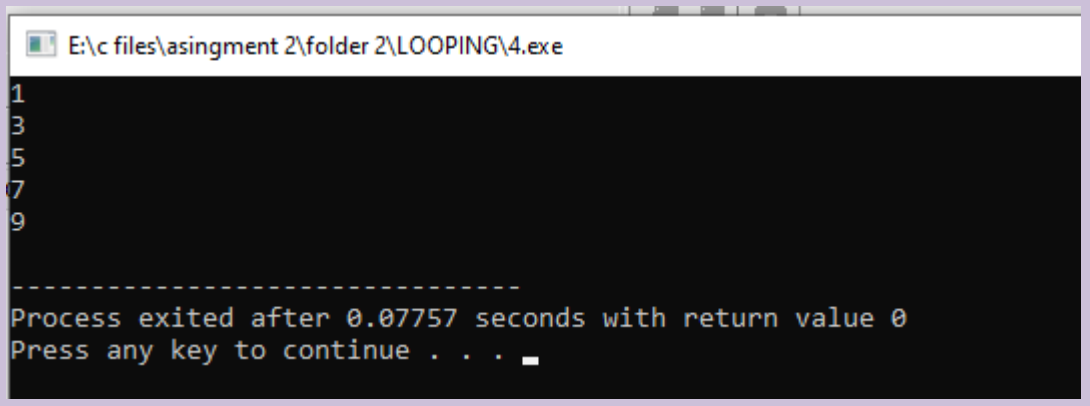


D) HOW many Odd numbers are there.

```
#include<stdio.h>
main()
{
        int a;
        for(a=1;a<=10;a++)
        {
                if(a%2!=0)
                {
                        printf("%d\n",a);
                }
```

```
        }
    }
```

OUTPUT

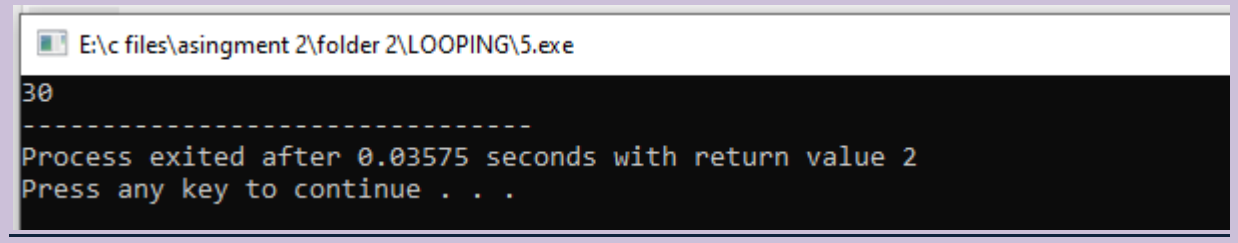


E) SUM of Even Numbers.

```
#include<stdio.h>
main()
{
        int a,sum=0;
        for(a=1;a<=10;a++)
```

```
{
        if(a%2==0)
        {
            sum=sum+a;
        }
    }
    printf("%d",sum);
}
```

OUTPUT

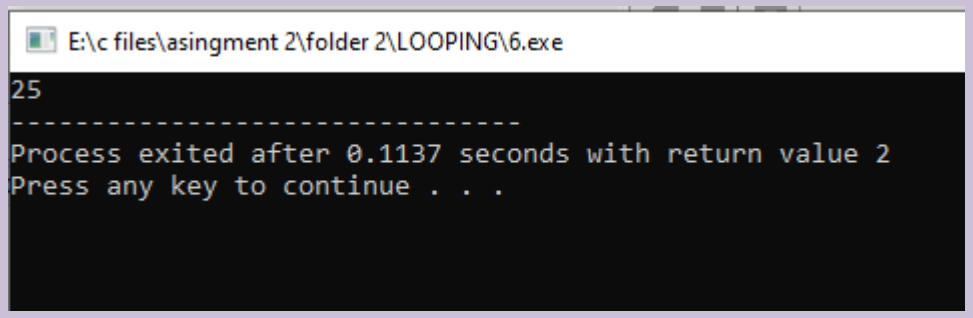


E) SUM OF ODD NUMBERS

- ```
  #include<stdio.h>
  main()
  ```
  ```

```
{
        int a,sum=0;
        for(a=1;a<=10;a++)
        {
                if(a%2!=0)
                {
                        sum=sum+a;
                }
        }
        printf("%d",sum);
}
```

OUTPUT



WAP TO PRINT TABLE UP TO GIVEN NUMBER

1) **WAP to Print factorial of given number.**

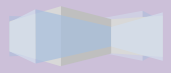
```
#include<stdio.h>

    main()

{
        int num, sum=1;

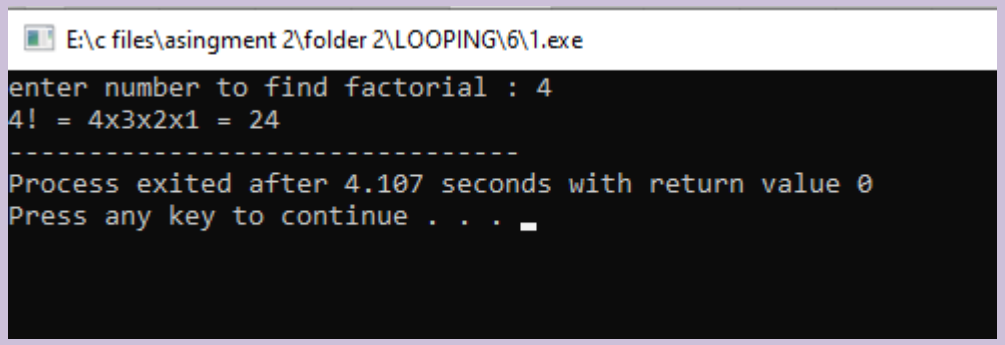
        printf("enter number to find factorial : ");
        scanf("%d",&num);
        printf("%d! = ",num);

        for(int i=num; i>=1; i--)
        {
            printf("%d",i);
            if(i>1)
            {
                printf("x");
            }
```

```
            sum *= i;
        }
        printf(" = %d ",sum);
    }
```

OUTPUT



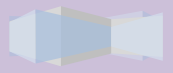
2) WAP to Fibonacci series up to given numbers

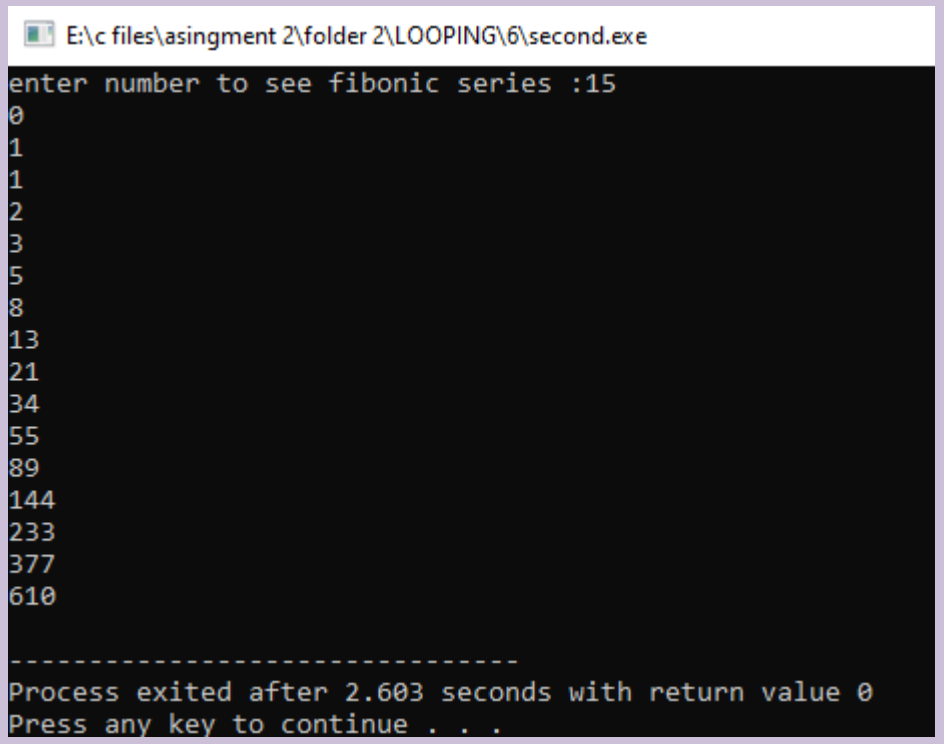
```
#include<stdio.h>
main()
{
        int fibonum, zero=0, one=1, sum;
        printf("enter number to see fibonic series :");
        scanf("%d",&fibonum);
```

```
        printf("%d \n",zero);
        printf("%d \n",one);

        for(int i=2; i<=fibonum; i++)
        {
                sum = zero + one;
                printf("%d \n",sum);
                zero = one;
                one = sum;
        }
}
```

OUTPUT



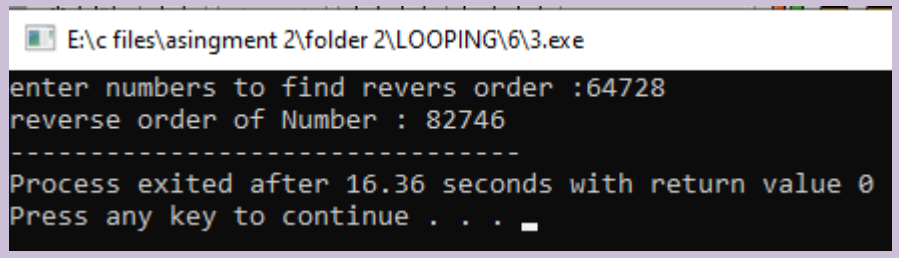


3) WAP to print numbers in revers order e.g..: number=64728---->reverse = 82746.

```
#include<stdio.h>
main()
{
        int num,  reverse=0, modulo;
        printf("enter numbers to find revers order :");
```

```
        scanf("%d", &num);
        for (int i=num; num!=0; num= num/10)
        {
                modulo=num%10;
                reverse=reverse*10+modulo;
        }
        printf("reverse order of Number : %d",reverse);
}
```

OUTPUT

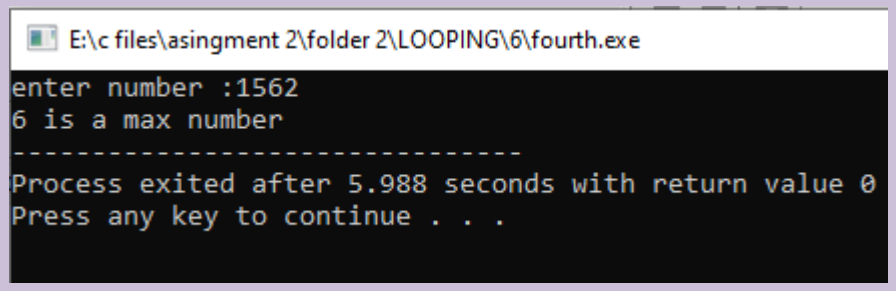


4) **WAP To find out the max from given number (E.G…NO: -1562 max number is 6)**

```
#include<stdio.h>
main()
{
```

```
    int num, max=0, modulo;
    printf("enter number :");
    scanf("%d",&num);
    for(int i=num; num!=0; num=num/10)
    {
        modulo = num%10;
        if(modulo>=max)
        {
            max = modulo;
        }
    }
    printf("%d is a max number",max)
    return 0;
}
```

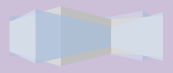
OUTPUT

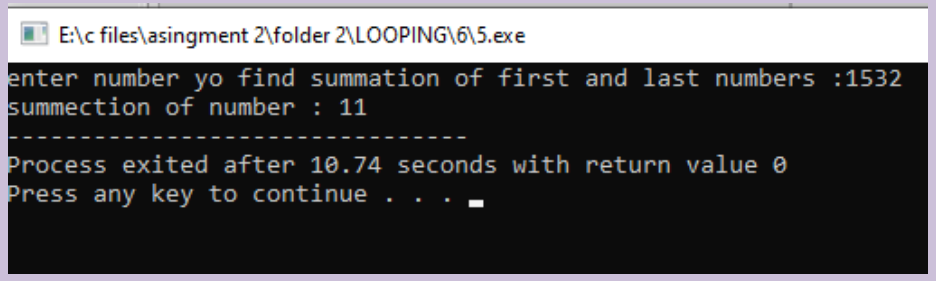


5) WAP make a summation of given number (E.g.. 1532 ANS:-11)

```
#include<stdio.h>
main()
{
        int num, sum=0, modulo;
        printf("enter number you summation:");
        scanf("%d",&num);
        for(int i=num; num!=0; num=num/10)
        {
                modulo = num%10;
                sum +=modulo;
        }
        printf("summection of number : %d ", sum);
        return 0;
}
```

OUTPUT





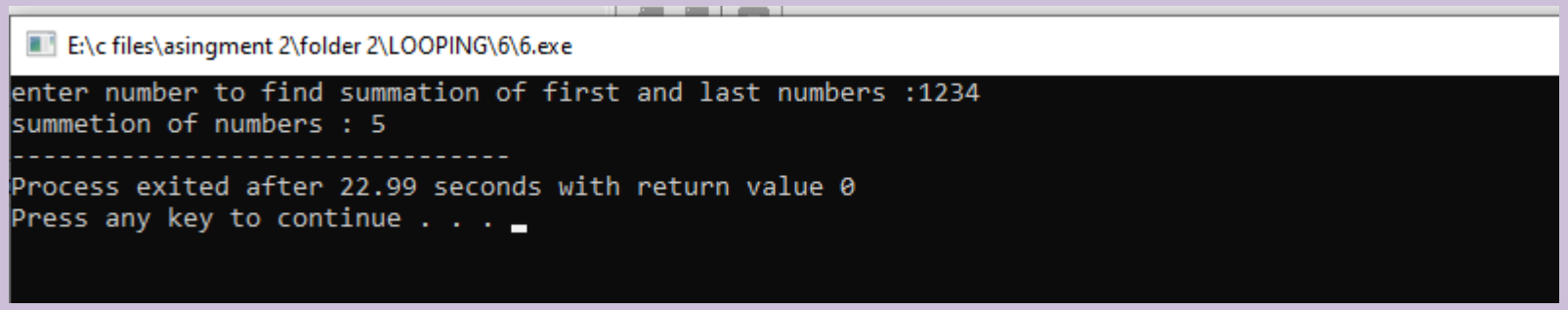
6) WAP you have to make a summation of first and last digit.(E.g..1234 ANS:-5)

```
#include<stdio.h>
main()
{
        int num, firstnum, lastnum, sum, modulo=11;
        printf("enter number to find summation of first and last numbers :");
        scanf("%d",&num);
        for(int i=num; num!=0; num=num/10)

        if(modulo==11)
        {
                modulo=num%10;
                lastnum=modulo;
        }
```

```
        else
        {
                modulo=num%10;
                firstnum=modulo;
        }
    sum=firstnum+lastnum;
     printf("summetion of numbers : %d",sum);
}
```

OUTPUT



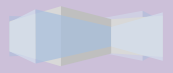
PATTERNS :

1) 1
   10
   101
   1010
   10101

➢
```
#include<stdio.h>
main()
{
        int zero=0, one=1, mod;
        for(int i=1; i<=5; i++)
        {
                for(int j=1; j<=i; j++)
                {

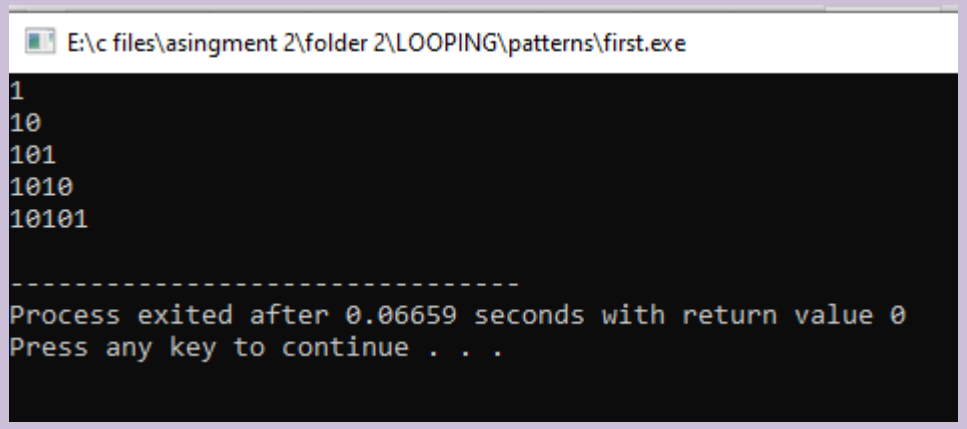
                mod=j%2;

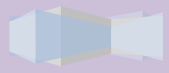
                        if(mod!=0)
                        {
                                printf("%d",one);
                        }else
```

```
                {
                        printf("%d",zero);
                }
            }
            printf("\n");
        }
    return 0;
}
```

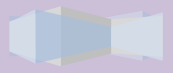
OUTPUT





2) A
BC
DEF
GHIJ
KLMNO

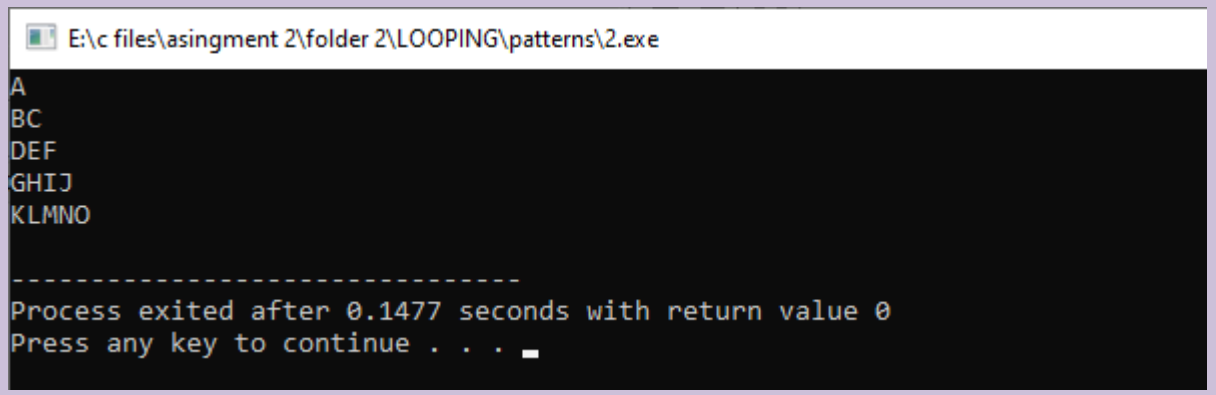
- ```
  #include<stdio.h>
  main()
  {
      char alphabet = 'A';
      for(int i=1; i<=5; i++)
      {
          for(int j=1; j<=i; j++)
          {
              printf("%c",alphabet);
              alphabet++;
          }
      printf("\n");
      }
  ```



  ```

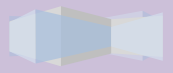
```
return 0;

}
```

OUTPUT

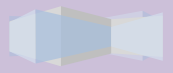


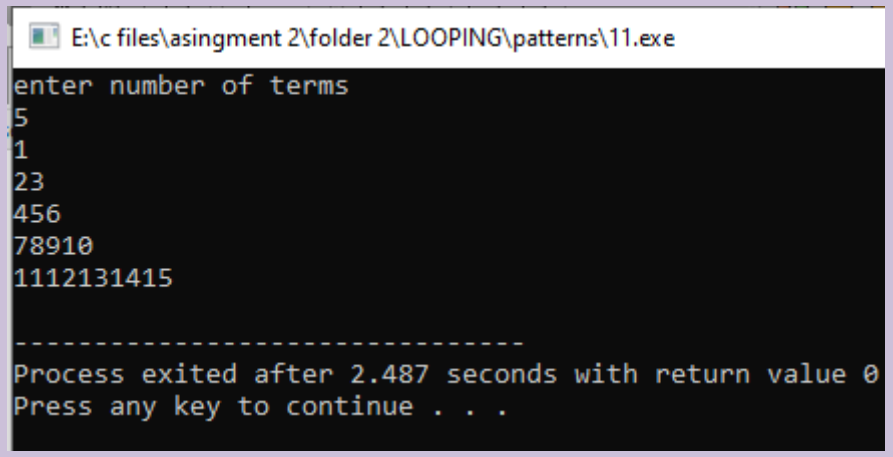
3) 1
   23
   456
   78910
   1112131415



```
#include<stdio.h>
main()
{
        int i,j, c=1, n;
        printf("enter number of terms\n");
        scanf("%d",&n);
        for(i=1;i<=n;i++)
        {
                for(j=1;j<=i;j++)
                {
                        printf("%d",c);
                        c++;
                }
                printf("\n");
        }
}
```

OUTPUT

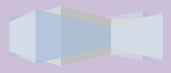




4) A
ABC
ABCD
ABCDE

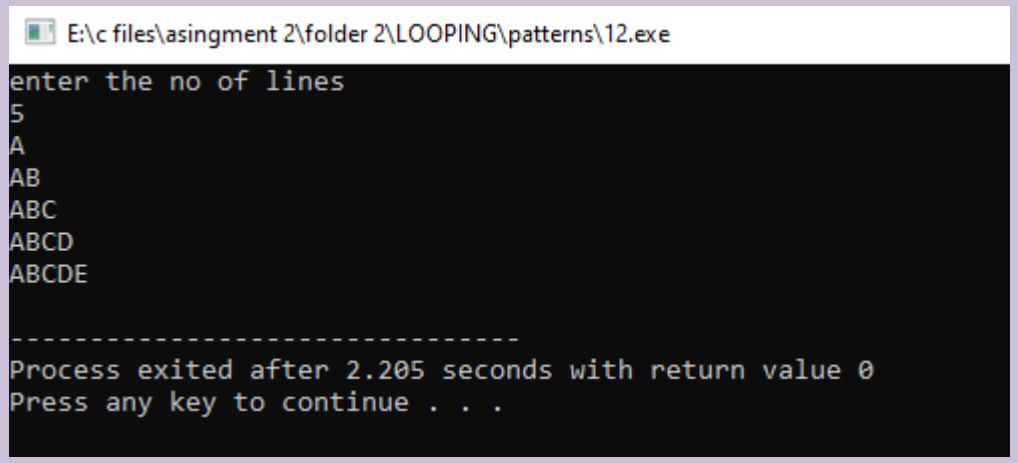
- **#include<stdio.h>**

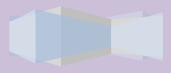
```
main()
{
        int i, j, n;
        printf("enter the no of lines \n");
        scanf("%d",&n);
```

```
        for(i=1;i<=n;i++)
        {
                for(j=1;j<=i;j++)
                {
                        printf("%c",(char)(j+64));
                }
                printf("\n");
        }
}
```

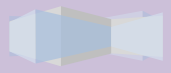
OUTPUT





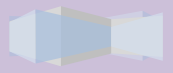
5) *
**
***
****
*****
******
*****
****
***
**
*

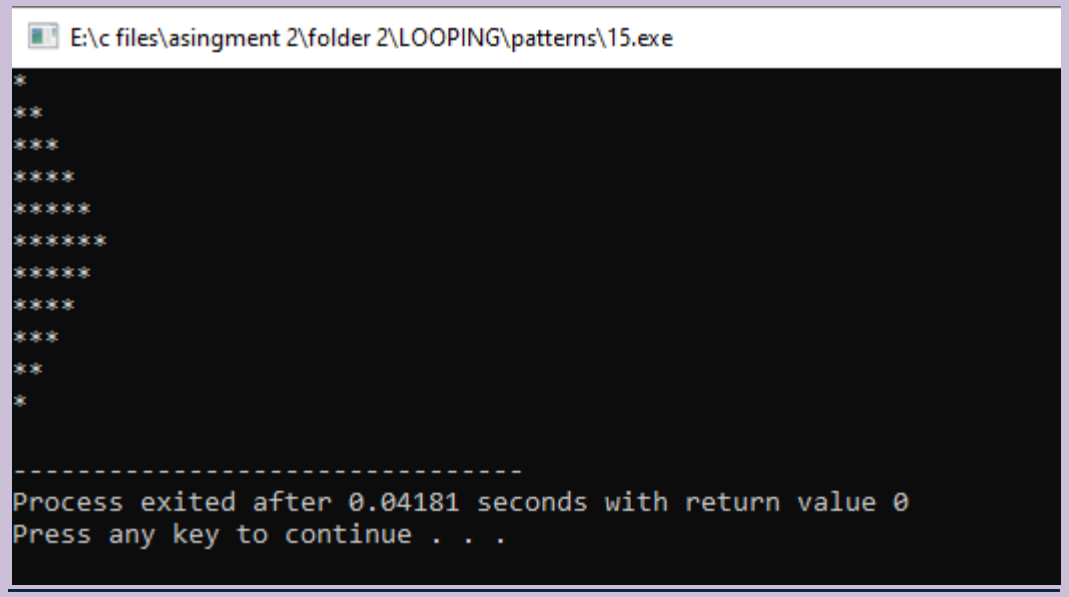
- ```
  #include<stdio.h>
  main()
  {
      for(int i=1; i<=11; i++)
      {
          if(i<=6)
          {
              for(int j=1; j<=i; j++)
  ```



  ```

```
                {
                printf("*");
                }
        }else
        {
                for(int j=11; j>=i; j--)
                {
                        printf("*");
                }
        }
        printf("\n");
    }
}
```

OUTPUT





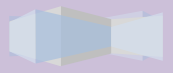
6)

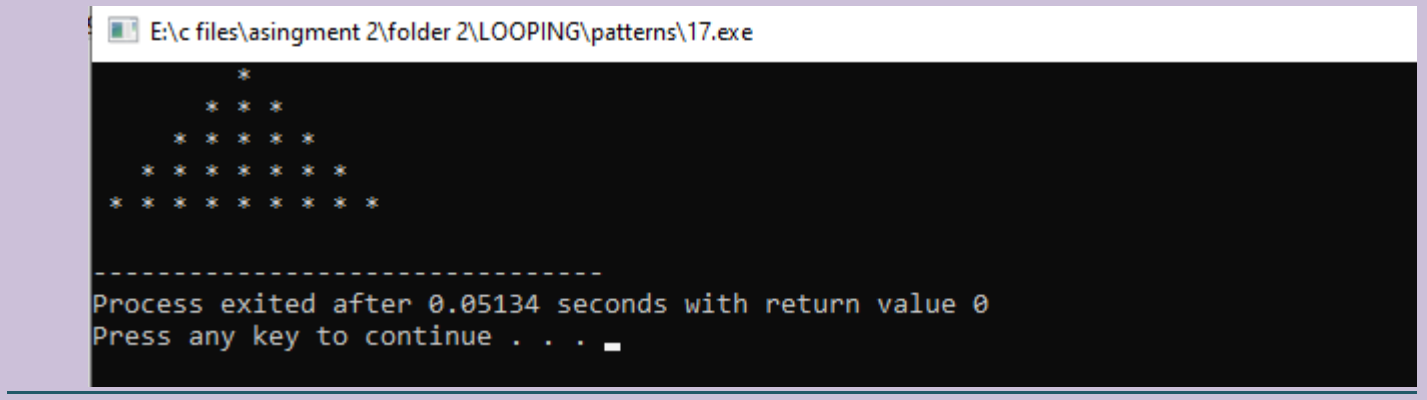
```
    *
   ***
  *****
 *** ****
** *******
```

- **#include<stdio.h>**
  main()

```
{
        int rows = 5;
        for (int i=0; i<rows; i++)
        {
                for(int j=0; j<2*(rows-i)-1; j++)
                {
                        printf(" ");
                }
                for(int k=0; k<(2*i)+1; k++)
                {
                  printf("* ");
        }
                printf("\n");
        }
        return 0;
}
```

OUTPUT




E:\c files\asingment 2\folder 2\LOOPING\patterns\17.exe
*
* * *
* * * * *
* * * * * * *
* * * * * * * * *

Process exited after 0.05134 seconds with return value 0
Press any key to continue . . .