

Assignment-2

Operators in C Language

1. A program to print unit digit of a given number.

```
#include <stdio.h>

int main()
{
    int x,u;

    printf("Enter the number: ");

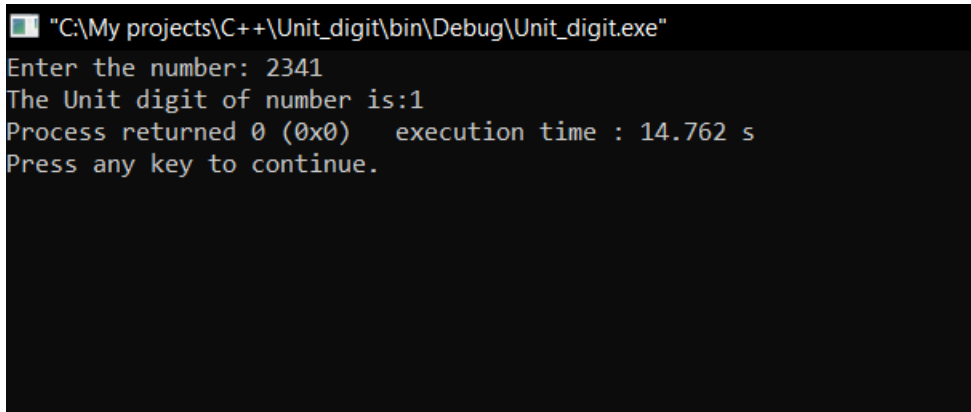
    scanf("%d",&x);

    u=x%10;

    printf("The Unit digit of number is:%d",u);

    return 0;
}
```

OUTPUT:



```
"C:\My projects\C++\Unit_digit\bin\Debug\Unit_digit.exe"
Enter the number: 2341
The Unit digit of number is:1
Process returned 0 (0x0)   execution time : 14.762 s
Press any key to continue.
```

2. Program to print a given number without its last digit.

```
#include <stdio.h>

int main()
{
    int x,u;

    printf("Enter the number: ");

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

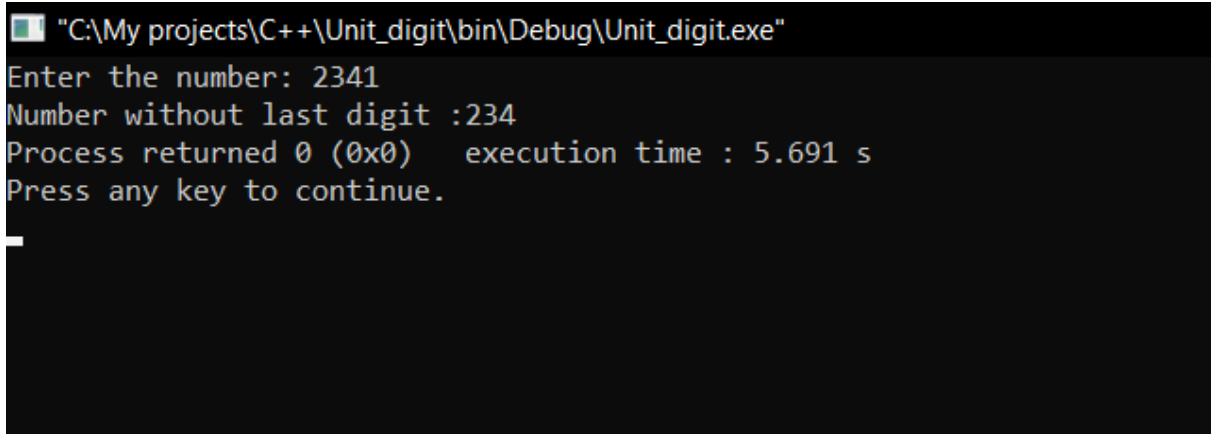
```
    u=x/10;

    printf("Number without last digit :%d",u);

    return 0;

}
```

OUTPUT:



```
"C:\My projects\C++\Unit_digit\bin\Debug\Unit_digit.exe"
Enter the number: 2341
Number without last digit :234
Process returned 0 (0x0)   execution time : 5.691 s
Press any key to continue.
```

3. A program to swap values of two int variables.

```
#include <stdio.h>

int main()
{
    int x,y,s;

    printf("Enter the value of x: ");

    scanf("%d",&x);

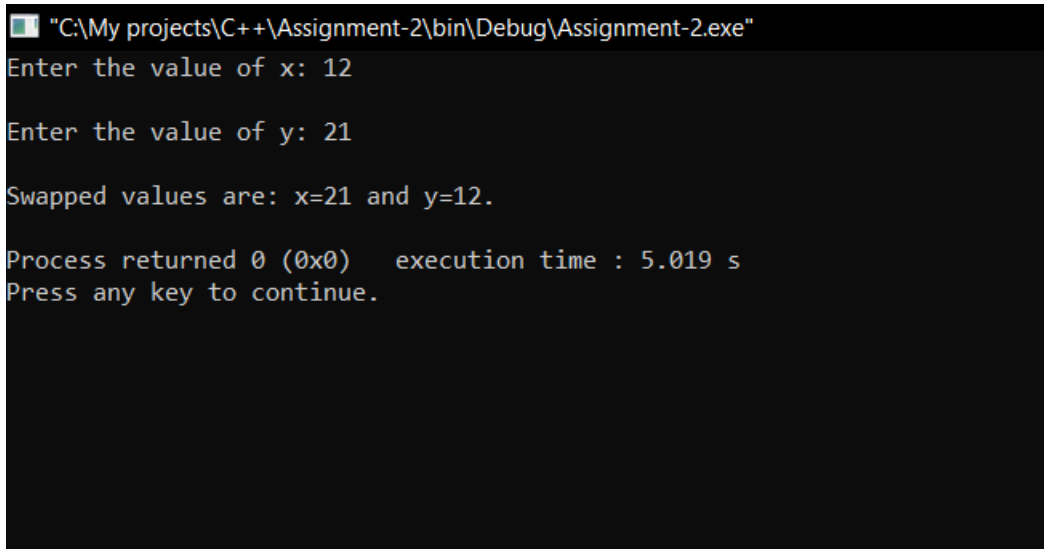
    printf("\nEnter the value of y: ");

    scanf("%d",&y);

    s=x;x=y;y=s;

    printf("\nSwapped values are: x=%d and y=%d.\n",x,y);
    return 0;
}
```

OUTPUT:



```
"C:\My projects\C++\Assignment-2\bin\Debug\Assignment-2.exe"
Enter the value of x: 12
Enter the value of y: 21
Swapped values are: x=21 and y=12.
Process returned 0 (0x0)   execution time : 5.019 s
Press any key to continue.
```

4. Program to swap values of two int variables without using a third variable.

```
#include <stdio.h>

int main()
{
    int x,y;

    printf("Enter the value of x: ");

    scanf("%d",&x);

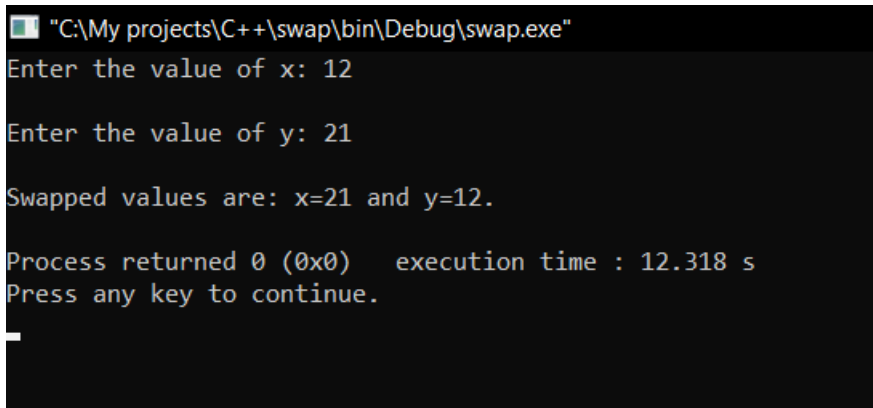
    printf("\nEnter the value of y: ");

    scanf("%d",&y);

    x=x+y;
    y=x-y;
    x=x-y;

    printf("\nSwapped values are: x=%d and y=%d.\n",x,y);
    return 0;
}
```

OUTPUT:



```
"C:\My projects\C++\swap\bin\Debug\swap.exe"
Enter the value of x: 12
Enter the value of y: 21
Swapped values are: x=21 and y=12.
Process returned 0 (0x0)   execution time : 12.318 s
Press any key to continue.
```

5. Check whether number is odd or even using bitwise operator.

```
#include <stdio.h>

int main()
{
    int x,y;
    printf("Enter the number: ");
    scanf("%d",&x);
    printf("\n Given Number is: ");
    y=x%10;
    if(y&1)
    {
        printf("Odd");
    }
    else
    {
        printf("Even");
    }
    return 0;
}
```

OUTPUT:

```
"C:\My projects\C++\EvenORoddusingBitwise\bin\Debug\EvenORoddusingBitwise.exe"
Enter the number: 14

Given Number is: Even
Process returned 0 (0x0)    execution time : 8.847 s
Press any key to continue.
```

```
"C:\My projects\C++\EvenORoddusingBitwise\bin\Debug\EvenORoddusingBitwise.exe"
Enter the number: 19

Given Number is: Odd
Process returned 0 (0x0)    execution time : 22.068 s
Press any key to continue.
```

6. Write a program to input a three-digit number and display the sum of the digits.

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

```
int main()
{
    int x,y,z,a;
    printf("Enter three digit number: ");
    scanf("%d",&x);
    y=x%10;
    z=x/10%10;
    a=x/100;
    printf("\n Sum of three digits number is: %d",y+z+a);
    return 0;
}
```

OUTPUT:

```
Select "C:\My projects\C++\Addition of three no.\bin\Debug\Addition of three no..exe"
Enter three digit number: 621

Sum of three digits number is: 9
Process returned 0 (0x0)   execution time : 18.639 s
Press any key to continue.
```

7. Write a program which takes a character as an input and displays its ASCII code.

```
#include<stdio.h>
int main()
{
    char k; int x;
    printf("Enter the character: ");
    scanf("%c",&k);
    x=k;
    printf("\n ASCII value of \'%c\' is: %d",k,x);
    return 0;
}
OUTPUT:
```

```
"C:\My projects\C++\ASCII\bin\Debug\ASCII.exe"
Enter the character: w

ASCII value of 'w' is: 119
Process returned 0 (0x0)   execution time : 3.112 s
Press any key to continue.
```

8. Program to print size of an int, a float, a char and a double type variable

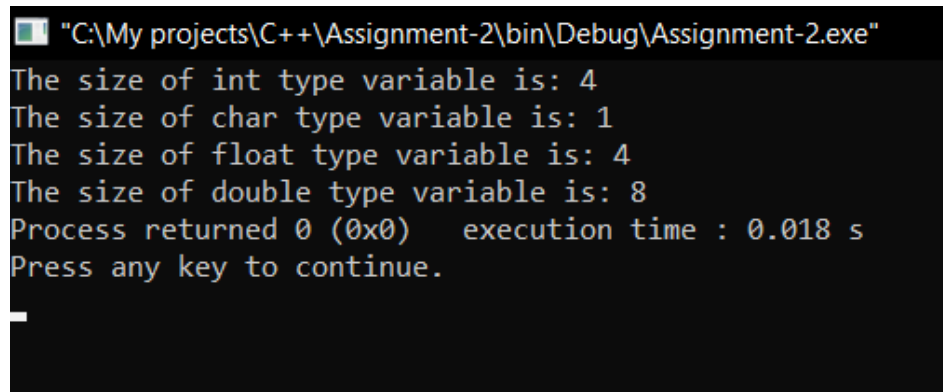
```
#include <stdio.h>
int main()
{
    int x; char c; float f; double d1;
    printf("The size of int type variable is: %d",sizeof(x));
    printf("\nThe size of char type variable is: %d",sizeof(c));
```

```

    printf("\nThe size of float type variable is: %d",sizeof(f));
    printf("\nThe size of double type variable is: %d",sizeof(d1));
    return 0;
}

```

OUTPUT:



```

"C:\My projects\C++\Assignment-2\bin\Debug\Assignment-2.exe"
The size of int type variable is: 4
The size of char type variable is: 1
The size of float type variable is: 4
The size of double type variable is: 8
Process returned 0 (0x0)   execution time : 0.018 s
Press any key to continue.

```

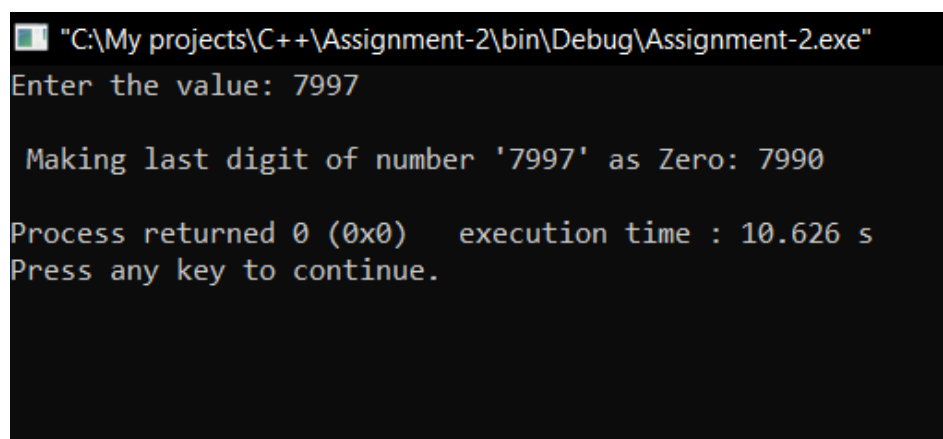
9. Program to make the last digit of a number stored in a variable as zero.

```

#include <stdio.h>
int main()
{
    int x;
    printf("Enter the value: ");
    scanf("%d",&x);
    printf("\n Making last digit of number \'%d\' as Zero: %d \n", x,x/10*10);
    return 0;
}

```

OUTPUT:



```

"C:\My projects\C++\Assignment-2\bin\Debug\Assignment-2.exe"
Enter the value: 7997

Making last digit of number '7997' as Zero: 7990

Process returned 0 (0x0)   execution time : 10.626 s
Press any key to continue.

```

10. A program to input a number from the user and also input a digit. Append a digit in the number and print the resulting number.

```
#include <stdio.h>

int main()
{
    int x,d;
    printf("Enter the number: ");
    scanf("%d",&x);
    printf("\n Enter the digit: ");
    scanf("%d",&d);
    printf("The appending number is: %d ",x*10+d);
    return 0;
}
```

OUTPUT:

```
"C:\My projects\C++\Assignment-2\bin\Debug\Assignment-2.exe"
Enter the number: 782

Enter the digit: 1
The appending number is: 7821
Process returned 0 (0x0) execution time : 33.689 s
Press any key to continue.
```

11. Assume price of 1 USD is INR 76.23. Write a program to take the amount in INR and convert it into USD.

```
#include<stdio.h>
int main()
{
    float I,D,r;
    printf("Enter the Indian ruppee: ");
    scanf("%f",&I);
    r=1/76.23;
    D=r*I;
    printf("%.2f IR = %.4f USD ",I,D);

    return 0;
}
```

OUTPUT:


```
"C:\My projects\C++\Assignment-2\bin\Debug\Assignment-2.exe"
Enter the Indian rupee: 1000
1000.00 IR = 13.1182 USD
Process returned 0 (0x0)   execution time : 5.510 s
Press any key to continue.
```

12. Program to find the position of first 1 in LSB.

```
#include <stdio.h>

int main()
{
    int x,y,count=0;
    printf("Enter the number: ");
    scanf("%d",&x);
    do
    {
        count++;
        y=x&1;
        if(y)
            printf("\nPosition is %d",count);
        else x=x>>1;
    }
    while(y==0);
    return 0;
}
```

OUTPUT:

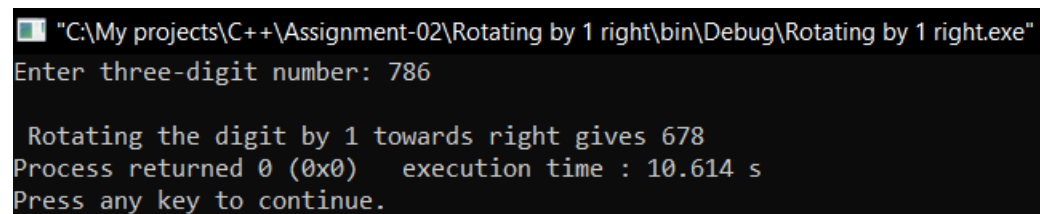
```
"C:\My projects\C++\Assignment-02\First LSB\bin\Debug\First LSB.exe"
Enter the number: 64

Position is 7
Process returned 0 (0x0)   execution time : 10.150 s
Press any key to continue.
```

13. A program to take a three-digit number from the user and rotate its digits by one position towards the right.

```
#include <stdio.h>
int main()
{
    int x,d;
    printf("Enter three-digit number: ");
    scanf("%d",&x);
    d=x%10*100+x/10;
    printf("\n Rotating the digit by 1 towards right gives %d ",d);
    return 0;
}
```

OUTPUT:



```
"C:\My projects\C++\Assignment-02\Rotating by 1 right\bin\Debug\Rotating by 1 right.exe"
Enter three-digit number: 786

Rotating the digit by 1 towards right gives 678
Process returned 0 (0x0)   execution time : 10.614 s
Press any key to continue.
_
```