Experiment – No-4

Objective: Program to implement condition statement in C language		
Scheduled Date	**Compiled Date**	**Submission Date**
08-feb-2021	**13-feb-2021**	**15-feb-2021**

Program1:decimal to octal using format specifier and vice versa

Algorithm:

Step 1 :Start

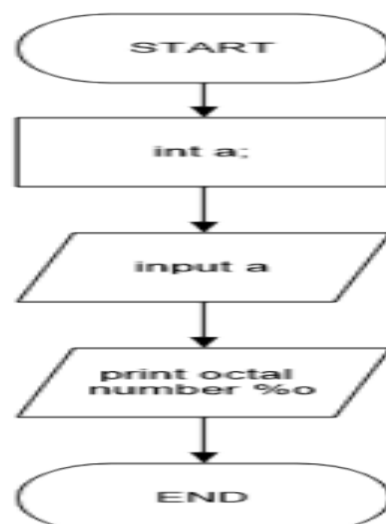Step 2: Enter any integer a.

Step 3: print octal number using %o.

Step 4: print decimal number using %d.

Step 5: End.

Flowchart:

Program:

```
#include<stdio.h>

#include<conio.h>

void main()

{

        int a;

        printf("Enter the decimal number :");

        scanf("%d",&a);

        printf("Octal number is :%o",a);

        printf("\nDecimal number is :%d",a);

        getch();

}
```
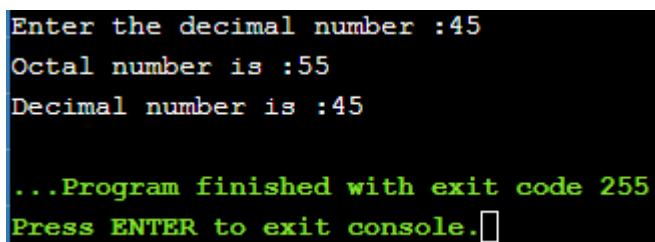
Output:

```
Enter the decimal number :45
Octal number is :55
Decimal number is :45

...Program finished with exit code 255
Press ENTER to exit console.
```

Program2:decimal to hexadecimal using format specifier and vice versa
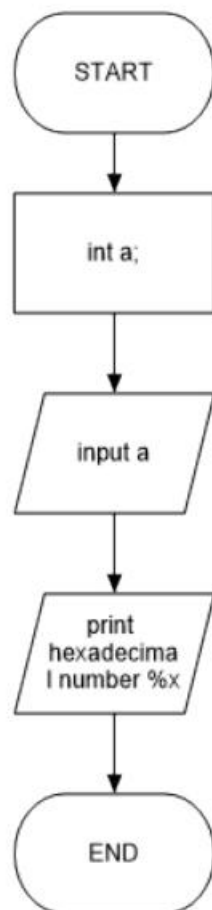
Algorithm:

Step 1 :Start

 Step 2: Enter any integer a.

Step 3: print Hexa decimal number using %x.

Step 4: print decimal number using %d.

Step 5: End.

Flowchart:

```
                    START

                    int a;

                    input a

                    print
                    hexadecima
                    l number %x

                    END
```

Program:

```
#include<stdio.h>

#include<conio.h>

void main()

{

        int a;

        printf("Enter the decimal number :");

        scanf("%d",&a);

        printf("Hexa decimal number is :%x",a);

        printf("Decimal number is :%d",a);

        getch();

}
```
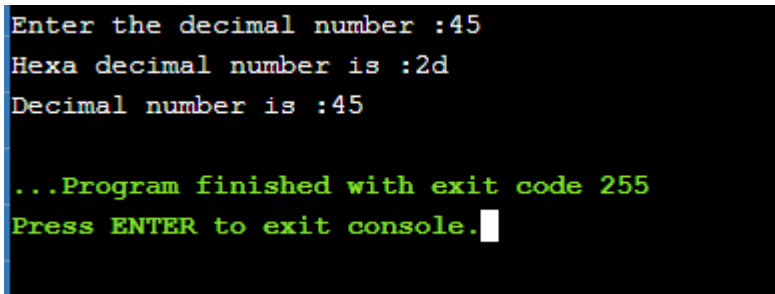
Output:

```
Enter the decimal number :45
Hexa decimal number is :2d
Decimal number is :45

...Program finished with exit code 255
Press ENTER to exit console.
```

Program3:octal to hexadecimal and vice versa
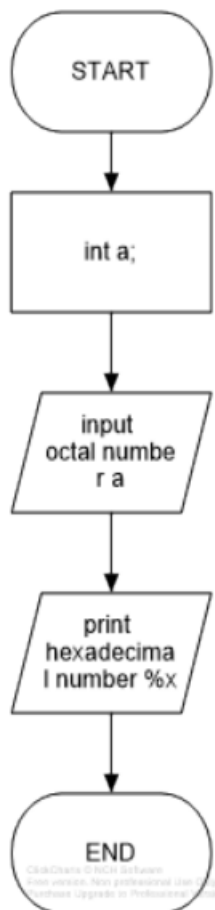
Algorithm:

Step 1 :Start

 Step 2: Enter any octal number a

    Step 3: print Hexa decimal number using %x.

Step 4: print octal number using %o.

Step 5: End.

Flowchart:

Program:

```
#include<stdio.h>

#include<conio.h>

int main()

{
```

```
    int a;

    printf("Enter the octal number :");

    scanf("%o",&a);

    printf("Hexa decimal number is :%x\n",a);

    printf("octal number is :%o",a);

return 0;

}
```
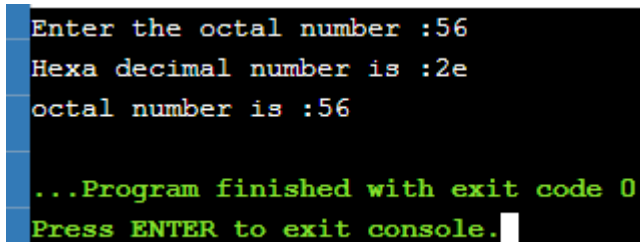
Output:

```
Enter the octal number :56
Hexa decimal number is :2e
octal number is :56


...Program finished with exit code 0
Press ENTER to exit console.
```
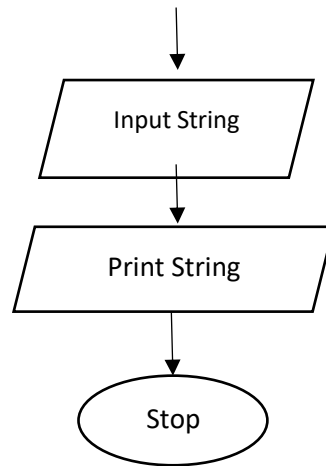
Program4:string input and output function (gets and puts)

Algorithm :

Step 1: Start

Step 2: Enter String using gets() function

Step 3: Print String using puts() function

Step 4: Stop

Flowchart :

Start

```
        ┌─────────────────┐
        │  Input String   /
        └─────────────────┘
                 │
                 ▼
        ┌─────────────────┐
        │  Print String   /
        └─────────────────┘
                 │
                 ▼
            ╭─────────╮
            │  Stop   │
            ╰─────────╯
```

Program :

```c
#include<stdio.h>

int main()

{

char ch[30];

printf("Enter a String :");

gets(ch);

printf("You have entered : \n");

puts(ch);

}
```

Output:

```
Enter a String :nehabansal
You have entered :
nehabansal
```

Program5:use scanf function to insert space into the string

Algorithm:

Step 1 :Start

Step 2: Enter any sentence a.

Step 3: print complete sentence.

Step 4: End.

Program:

#include <stdio.h>

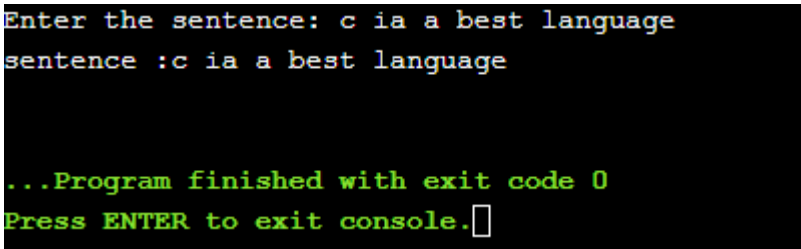int main()

{

      char a[30];

      printf("Enter the sentence: ");

      scanf("%[^\n]",a);

      printf("sentence :%s\n",a);

      return 0;

}

Output:

```
Enter the sentence: c ia a best language
sentence :c ia a best language


...Program finished with exit code 0
Press ENTER to exit console.
```

Program6:uses of 6 function from string.h

Program:

#include <string.h>

```c
#include <stdio.h>

int main()
{
    char c1[50];

    char c2[50] ;

    printf("Enter two string :");

    scanf("%s %s",&c1,&c2);

    strcat(c1,c2);                      //strcat() function contcatenates (joins) two strings

    printf("%s\n",c1);




    int res = strcmp(c1,c2);            //compares the two strings

    if (res == 1)

        printf("Strings are equal");

    else

        printf("Strings are unequal");




    printf("\nLength of string is: %lu",strlen(c1));        //calculates the length of a given string

    return 0;

}
```

Output:

```
Enter two string :krishna institute
krishnainstitute
Strings are unequal
Length of string is: 16
```