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Practical Number	01
Areas covered	Memory concepts, Data Input & output ,primitive data types

Write a C program for each of the following question

1. Display your name and school name in two separate lines

```
printf("Thanuka Thathsara \n Bandaranayake College Gampaha");
```

2. Display the following output using printf() statements

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

```
printf("\n*\n**\n***\n****\n*****\n\n");
```

3. Input values for int,float,double and char data types and display the value of each of the variable.

```
    char name[20];
int num01;
float num02;
double num03;

  printf("Enter the charater: ");
  scanf("%s",&name);

  printf("Enter integer number: ");
  scanf("%i",&num01);
```

```
printf("Enter float number: ");
 scanf("%f", &num02);

printf("Enter double number: \n\n");
scanf("%lf",&num03);

        printf("\n\n%s\n", name);
        printf("%i\n",num01);
        printf("%.2f\n",num02);
        printf("%lf\n",num03);
```

4. Input two integers and display the total

```
int number01,number02,sum;

    printf("Enter two numbers to find the sum:");
    scanf("%i   \n  %i",&number01,&number02);

    sum=number01+number02;

    printf("Sum = %i",sum);
```

5. Input two numbers with decimals(fractions) and display the average with decimals

```
    float number01,number02,avg;

        printf("Enter two numbers to find the average: ");
        scanf("%f \n %f",&number01,&number02);

        avg=(number01+number02)/2;

        printf("Average=%.3f",avg);
```

6. Input a student name, birth year and display student name with age.

```
    char name[20];
int birthyear,age;

printf("Enter Your Name: ");
scanf("%s",&name);
 printf("Enter Your Birth Year: ");
scanf("%d",&birthyear);

age=2023-birthyear;

printf("%s your age is %d",name,age);
```

7. Input two numbers, swap the values and display the output. (Before swap and after swap)

```
    int value01,value02,swapvalue01,swapvalue02;

printf("Enter two values: ");
scanf("%d\n%d",&value01,&value02);
printf("Before swap\n%d\n%d\n",value01,value02);

swapvalue01=value02;
swapvalue02=value01;

printf("After swap\n%d\n%d ",swapvalue01,swapvalue02);
```

8. Execute the following code and analyze the output. Study the output format.

```
#include<stdio.h>
main()
{
        printf("The color: %s\n", "blue");
        printf("First number: %d\n", 12345);
        printf("Second number: %04d\n", 25);
        printf("Third number: %i\n", 1234);
        printf("Float number: %3.2f\n", 3.14159);
```

```
        printf("Hexadecimal: %x\n", 255);
        printf("Octal: %o\n", 255);
        printf("Unsigned value: %u\n", 150);
        printf("Just print the percentage sign %%\n", 10);
}
```

The color: blue

First number: 12345

Second number: 0025

Third number: 1234

Float number: 3.14

Hexadecimal: ff

Octal: 377

Unsigned value: 150

Just print the percentage sign %