Q-1 Display This Information using printf
1. Your Name
2. Your Birth date
3. Your Age
4. Your Address

A-1

```c
#include<stdio.h>
void main()
{
    printf("---------------------------------------");
    printf("\n\t Name = Moxit Shah");
    printf("\n\t Birth-Date = 12-01-2001");
    printf("\n\t Age = 22");
    printf("\n\t Khanpur, Ahmedabad - 380001");
}
```

OUTPUT :-

```
----------------------------------------
        Name = Moxit Shah
        Birth-Date = 12-01-2001
        Age = 22
        Khanpur, Ahmedabad - 380001
--------------------------------
Process exited after 10.1 seconds with return value 30
Press any key to continue . . . |
```

Q-2 Write a program to make Simple calculator (to make addition, subtraction, multiplication, division and modulo)

A-2

```c
#include<stdio.h>
void main()
{
    int a;
    int b;
    printf("\n\t----------------------------------");
        printf("\n\tEnter the first number = ");
        scanf("%d",&a);
        printf("\n\tEnter the second number = ");
        scanf("%d",&b);
     printf("\n\t----------------------------------");
        printf("\n\tADD = %d",a+b);
        printf("\n\tSUB = %d",a-b);
        printf("\n\tMUL = %d",a*b);
        printf("\n\tDIV = %.2f",((float)a/b));
        printf("\n\tMODULO = %d",a%b);
}
```

OUTPUT :-

```
----------------------------------
Enter the first number = 20

Enter the second number = 10

----------------------------------
ADD = 30
SUB = 10
MUL = 200
DIV = 2.00
MODULO = 0
----------------------------------
Process exited after 13.98 seconds with return value 12
Press any key to continue . . . |
```

Q-3 **WAP to find area of circle, rectangle and triangle**

A-3

Area of circle = $A=\pi r^2$

OUTPUT :-

```
ENTER RADIUS OF CIRCLE = 10


--------------------------
AREA OF CIRCLE IS 314.16
--------------------------------
Process exited after 8.877 seconds with return value 25
Press any key to continue . . .
```

Area of Rectangle = length*width

```
#include<stdio.h>

void main ()
{
    float length,width,area;
    printf("\t----AREA OF RECTANGLE----");
    printf("\n\tEnter length rectangle = ");
    scanf("%f",&length);
    printf("\n\tENTER WIDTH OF RECTANGLE = ");
    scanf("%f",&width);
    area = 2(length*width);
    printf("\n\t--------------------------------");
    printf("\n\t AREA OF RECTANGLE IS %.0f",area);


}
```

OUTPUT :-

```
        ----AREA OF RECTANGLE----
        Enter length rectangle = 30

        ENTER WIDTH OF RECTANGLE = 55


        --------------------------------
        AREA OF RECTANGLE IS 1650
--------------------------------
Process exited after 24.75 seconds with return value 27
Press any key to continue . . .
```

Area of Triangle = base * height / 2

```c
#include<stdio.h>

void main()
{
    int b,h;
    float area;
    printf("-------------------------------");
    printf("\nEnter base of triangle = ");
    scanf("%d,",&b);
    printf("Enter height of triangle = ");
    scanf("%d,",&h);

    area = (b*h)/2;
    printf("-------------------------------");
    printf("\nArea of triangle = %.0f",area);
}
```

OUTPUT :-

```
-------------------------------
Enter base of triangle = 10
Enter height of triangle = 6
-------------------------------
Area of triangle = 30
-------------------------------
Process exited after 18.57 seconds with return value 22
Press any key to continue . . .
```

Q-4 WAP to find simple interest

A-4

Simple Interest **(SI) = P × R × N ∕ 100**

i = simple interest

p= principal amount

r = rate of interest

n = number of years

Time	Simple interest Formula	Explanation
Years	PTR/100	T = Number of years
Months	(P × n × R)/ (12 ×100)	n = Number of months
Days	(P × d × R)/ (365 ×100)	d = Number of days (non-leap year)

```c
#include<stdio.h>
void main()
{
    int n;
    float p,r,i;
    printf("-----------------------------------");
    printf("\n\tEnter Principal Amount = ");
    scanf("%f",&p);
    printf("\n\tEnter Rate of Interest(%) = ");
    scanf("%f",&r);
    printf("\n\tEnter Months of Interest  = ");
    scanf("%d",&n);
    i = (p*r*n)/1200;
    printf("------------------------------------");
    printf("\n\tSimple Interest = %.0f",i);

}
```

OUTPUT :-

```
------------------------------------
        Enter Principal Amount = 12000
        Enter Rate of Interest(%) = 12
        Enter Months of Interest  = 12
------------------------------------
        Simple Interest = 1440/-
------------------------------------
Process exited after 21.33 seconds with return value 26
Press any key to continue . . . |
```

Q-5 WAP to check if the given year is a leap year or not.

A-5

```c
#include <stdio.h>
void main()
{
  int year;
  printf("---------------------------------");
  printf("\nEnter a year: ");
  scanf("%d", &year);

            // leap year if perfectly divisible by 400
  if (year % 400 == 0)
  {
    printf("%d is a leap year.", year);
  }

        // not a leap year if divisible by 100
        // but not divisible by 400
  else if (year % 100 == 0)
  {
    printf("%d is not a leap year.", year);
    printf("----------------------------");
  }

            // but divisible by 4
  else if (year % 4 == 0)
  {
    printf("%d is a leap year.", year);
    printf("---------------------------");
  }

          // all other years are not leap years
  else
  {
    printf("%d is not a leap year.", year);
  }
}
```

OUTPUT :-

```
-----------------------------------
Enter a year: 2022
2022 is not a leap year.
-----------------------------------
Process exited after 13.4 seconds with return value 24
Press any key to continue . . .
```

Q-6 WAP to convert years into days and days into years

A-6
```c
#include<stdio.h>

void main()
{
    float day,year,cnvrt_year,cnvrt_day;
    printf("---------------------------------");
    printf("\n\t Enter Days = ");
    scanf("%f",&day);
    cnvrt_year = day/365;
    printf("\t Converted Days In To Year = %.0f",cnvrt_year);


    printf("\n-------------------------------");

    printf("\n\t Enter Year = ");
    scanf("%f",&year);
    cnvrt_day = year*365;
    printf("\t Converted Years In TO Day = %.0f",cnvrt_day);
}
```

OUTPUT :-

```
-------------------------------
        Enter Days = 730
        Converted Days In To Year = 2
-------------------------------
        Enter Year = 2.6
        Converted Years In TO Day = 949
-------------------------------
Process exited after 81.58 seconds with return value 33
Press any key to continue . . .
```