Software Engineering Assignment

MODULE: 2.1 (C Language Fundamental)

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

```c
#include <stdio.h>

int main()
{

    printf("Name    : Jalpa Ashokbhai Vadgama \n");
    printf("DOB     : July 23, 1994 \n");
    printf("Age     : 29 \n");
    printf("Address : Morbi \n");

    return(0);
}
```

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

```c
#include<stdio.h>

main()
{
        // Calculator
        int num1,num2;

        printf("Enter number 1 \n");
        scanf("%d",&num1);
        printf("Enter number 2 \n");
        scanf("%d",&num2);

        printf("Addition        : %d \n",num1+num2);
        printf("Substraction    : %d \n",num1-num2);
        printf("Multipication   : %d \n",num1*num2);
        printf("Division : %d \n",num1/num2);
        printf("Modulo          : %d \n",num1%num2);
}
```

3. WAP to find area of circle, rectangle and triangle

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

int main()
{
        // Area of Circle
        float radius,area;
        printf("\n**Area of Circle**\n");
        printf("Enter the radius of a circle:");
        scanf("%f",&radius);
        area = 3.14159*radius*radius;
        printf("Area of the Circle = %.2f\n", area);

        // Area of Rectangle
        float height, width, Area;
        printf("\n\n**Area of Rectangle**\n");
        printf("Enter the height of a rectangle: ");
        scanf("%f",&height);
        printf("Enter the width of a rectangle: ");
        scanf("%f",&width);

        Area=width*height;
        printf("Area of the Rectangle = %.2f\n",Area);

        // Area of Triangle
        float base, Height, AREA;
        printf("\n\n**Area of Triangle**\n");
        printf("Enter the base of the triangle: ");
        scanf("%f",&base);
        printf("Enter the height of the triangle: ");
        scanf("%f",&Height);
        AREA = (base * Height) / 2;
        printf("Area of the Triangle is = %.2f\n", AREA);

        return 0;
}
```

4. **WAP to find simple interest**

```c
#include <stdio.h>

int main()
{
   //Simple interest
   float principle, time, rate, SI

   printf("Enter principle amount: ");
   scanf("%f", &principle);

   printf("Enter interest rate: ");
   scanf("%f", &rate);

   printf("Enter number of year: ");
   scanf("%f", &time);

   SI = (principle * rate * time ) / 100;
   printf("Simple Interest = %f", SI);

   return 0;
}
```

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

```c
#include<stdio.h>

int main()
{
        // Year is leap year or not
        int year;
        printf("Enter a year: ");
        scanf("%d", &year);

        if((year%4==0) && (year%400==0) || (year%100!=0))
        {
        printf("%d is a leap year",year);
        }
        else
        {
        printf("%d is not a leap year",year);
        }

        return 0;
}
```

6. **WAP to convert years into days and days into years**

```c
#include<stdio.h>

int main()
{
        // Days into Years
        int days, years;
        printf("Enater Days :\n");
        scanf("%d",&days);
        years = days/365;
        printf("Number of years is : %d \n",years);

        // Years into Days
        int year;
        printf("\nEnter Years :\n");
        scanf("%d",&year);
        days = year*365;
        printf("Number of days is : %d",days);

        return 0;
}
```