East West University

Computer Science and Engineering

Lab Report 1

Submitted by: Purnendu Bhowmik Shuvro

ID:2023-1-60-085

Submitted to: Associate Professor Mohammad Arifuzzaman Ph.D.

Submission date: 15/06/2023

Computer Science and Engineering

1. Write a complete C program to find area of a circle.

Code:

```c
# include <stdio.h>

int main ()
{
    float r, a;
    printf("Enter the value of radius: ");
    scanf("%f" ,&r);
    a=3.142*r*r;
    printf("The area of circle is %.2f" ,a);
    return 0;
}
```

Output:

```
Enter the value of radius: 5
The area of circle is 78.55
Process returned 0 (0x0)   execution time : 1.840 s
Press any key to continue.
```

2. Write a C program to convert a temperature from Celsius to Fahrenheit.

Code:

```c
#include <stdio.h>

int main()
{
    float C, F;
    printf("Enter the value of C: ");
    scanf("%f", &C);
    F=(9/5)*C+32;
    printf("F: %.2f", F);
    return 0;
}
```

Output:

```
Enter the value of C: 38
F: 70.00
Process returned 0 (0x0)    execution time : 2.049 s
Press any key to continue.
```

3. Write a complete C program to solve the equation $ax^2+bx+c=0$

Code:

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

int main()
{
    float a, b, c, u, v;
    printf("Enter the value of a: ");
    scanf("%f", &a);
    printf("Enter the value of b: ");
    scanf("%f", &b);
    printf("Enter the value of c: ");
    scanf("%f", &c);

    u=(-b+sqrt(b*b-4*a*c))/(2*a);
    v=(-b-sqrt(b*b-4*a*c))/(2*a);

    printf("The value of x1: %.2f \n" ,u);
    printf("The value of x2: %.2f" ,v);
    return 0;
}
```

Output:

```
Enter the value of a: 1
Enter the value of b: 4
Enter the value of c: 2
The value of x1: -0.59
The value of x2: -3.41
Process returned 0 (0x0)    execution time : 2.895 s
Press any key to continue.
```

Conclusion:

The program is based on learning function and understanding the basic knowledge of C programming language. From this lab, I had learnt about the inclusion of the header files & steps of problem solving.