Experiment No-1

Problem: Write a C program that convert Celsius temperature to Fahrenheit temperature.

Objectives:

- To understand the conversion formula between Celsius and Fahrenheit.
- To develop a simple C program for temperature conversion.
- To implement user input and mathematical computation in C.
- To display the converted temperature in Fahrenheit.

Problem analysis:

We need to convert a given temperature in Celsius to Fahrenheit using the formula:

F =(C*9/5)+32

Input variables	Processing variables	Output variables	Header files
Celsius(float)	Fah=(C*9/5)+32	Fahrenheit (float)	<Stdio.h>

Algorithms:

Step-1: Start

Step-2: Declare Celsius and Fahrenheit as float

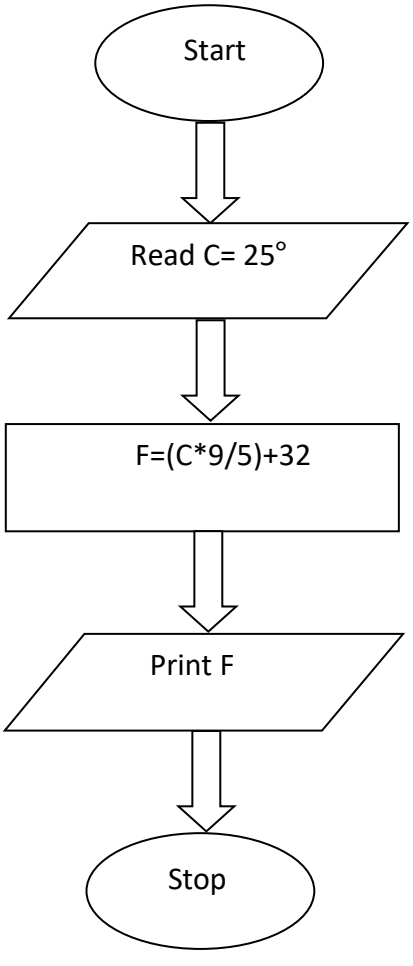
Step-3: Assign a value to variables: C=25 degree

Step-4: Apply the conversion formula:

- F=(C*9/5)+32

Step-5: End

Flowchart:

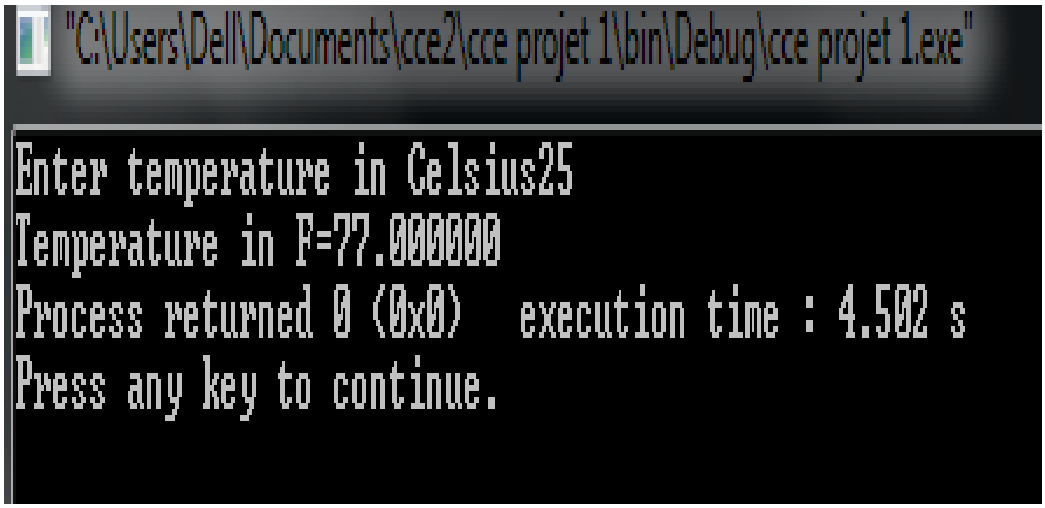


Source code:

main.c

```c
#include<stdio.h>
      int main()
    {
       float F,C;
    printf("Enter temperature in Celsius");
      scanf("%f",&C);
    F=(9*C/5)+32;
      printf("Temperature in F=%f",F);
       return 0;
    }
```

Output:



Discussion and Conclusion:

The program successfully converts a Celsius temperature to Fahrenheit. The user enters the temperature in Celsius, and the program applies the conversion formula. The result is displayed in two decimal places for better readability. The program uses scanf() for user input and printf() for output display. This program demonstrates how to use variables, arithmetic operations, and input/output functions in C. The approach is efficient and accurate for temperature conversion. This logic can be extended to build a more comprehensive unit conversion tool.