LAB#3 4/oct

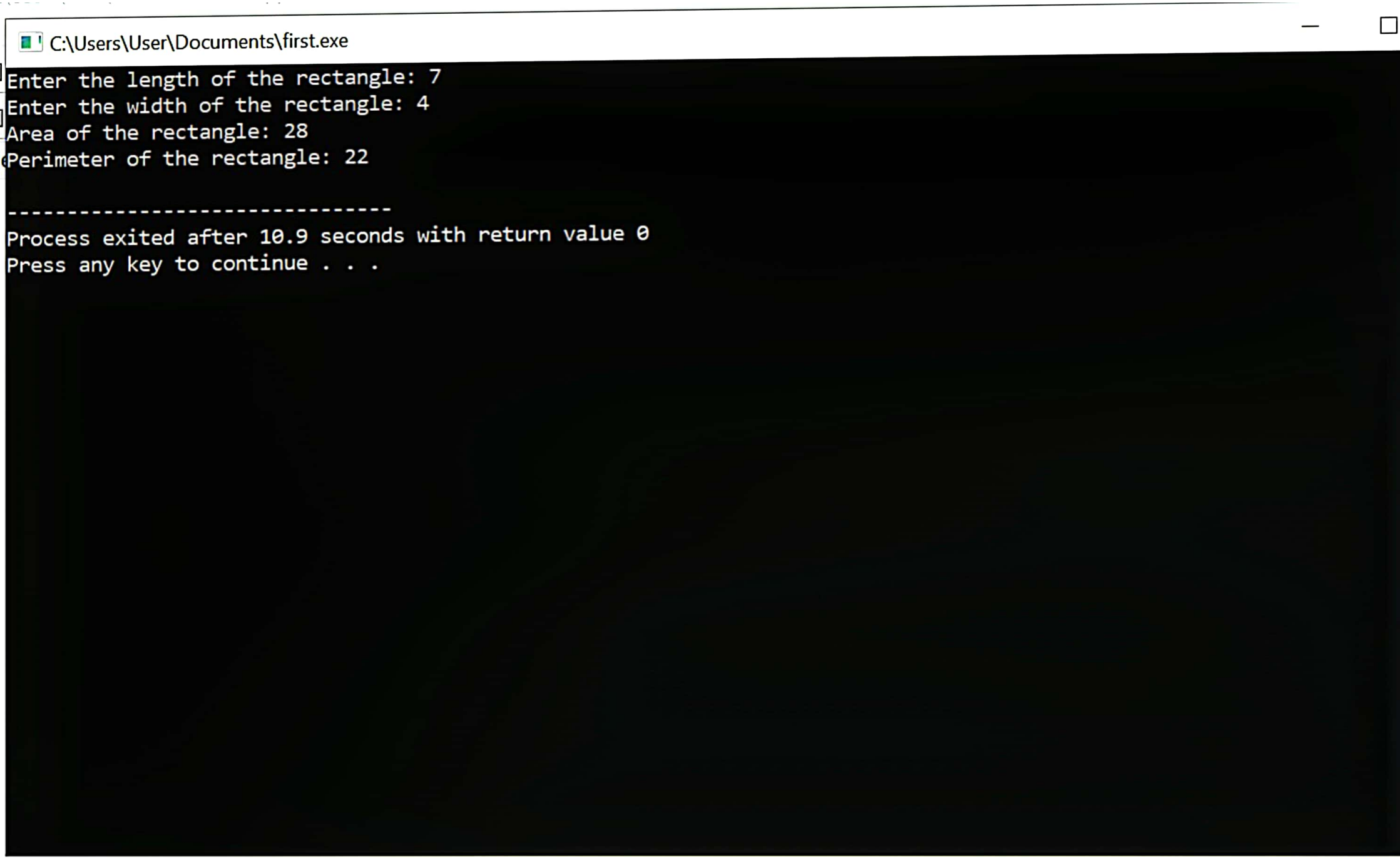
TASK 1

Write a program to calculate the area and perimeter of a rectangle.

Taking the length and width as input (use double or float data type).

```
#include <iostream>
using namespace std;

int main() {
    double length, width, area, perimeter;
    Cout << "Enter the length of the rectangle:";
    Cin >> length;
    Cout << "Enter the width of the rectangle:";
    Cin >> width;

    area = length * width;
    Perimeter = 2 * (length + width);

    Cout << "Area of the rectangle:" << area << endl;
    Cout << "Perimeter of the rectangle:" << perimeter
                                          << endl;
    return 0;
}
```

```cpp
#include <iostream>
using namespace std;

int main() {
    // Declare variables for length and width
    double length, width, area, perimeter;

    // Input length and width from the user
    cout << "Enter the length of the rectangle: ";
    cin >> length;

    cout << "Enter the width of the rectangle: ";
    cin >> width;

    // Calculate area and perimeter
    area = length * width;
    perimeter = 2 * (length + width);

    // Display the results
    cout << "Area of the rectangle: " << area << endl;
    cout << "Perimeter of the rectangle: " << perimeter << endl;

    return 0;
}
```



TASK #02

Write a Program that Converts a temperature from Celsius to Fahrenheit.

Fahrenheit = (Celsius * 9/5) + 32

TASK #03

TDM-GCC 9.2.0 64-bit Release

(globals)

first.cpp

```cpp
#include <iostream>
using namespace std;

int main() {
    // Declare a variable for Celsius and Fahrenheit
    double celsius, fahrenheit;

    // Prompt the user to enter a temperature in Celsius
    cout << "Enter temperature in Celsius: ";
    cin >> celsius;

    // Convert Celsius to Fahrenheit
    fahrenheit = (celsius * 9 / 5) + 32;

    // Display the equivalent Fahrenheit temperature
    cout << "Equivalent temperature in Fahrenheit: " << fahrenheit << endl;

    return 0;
}
```

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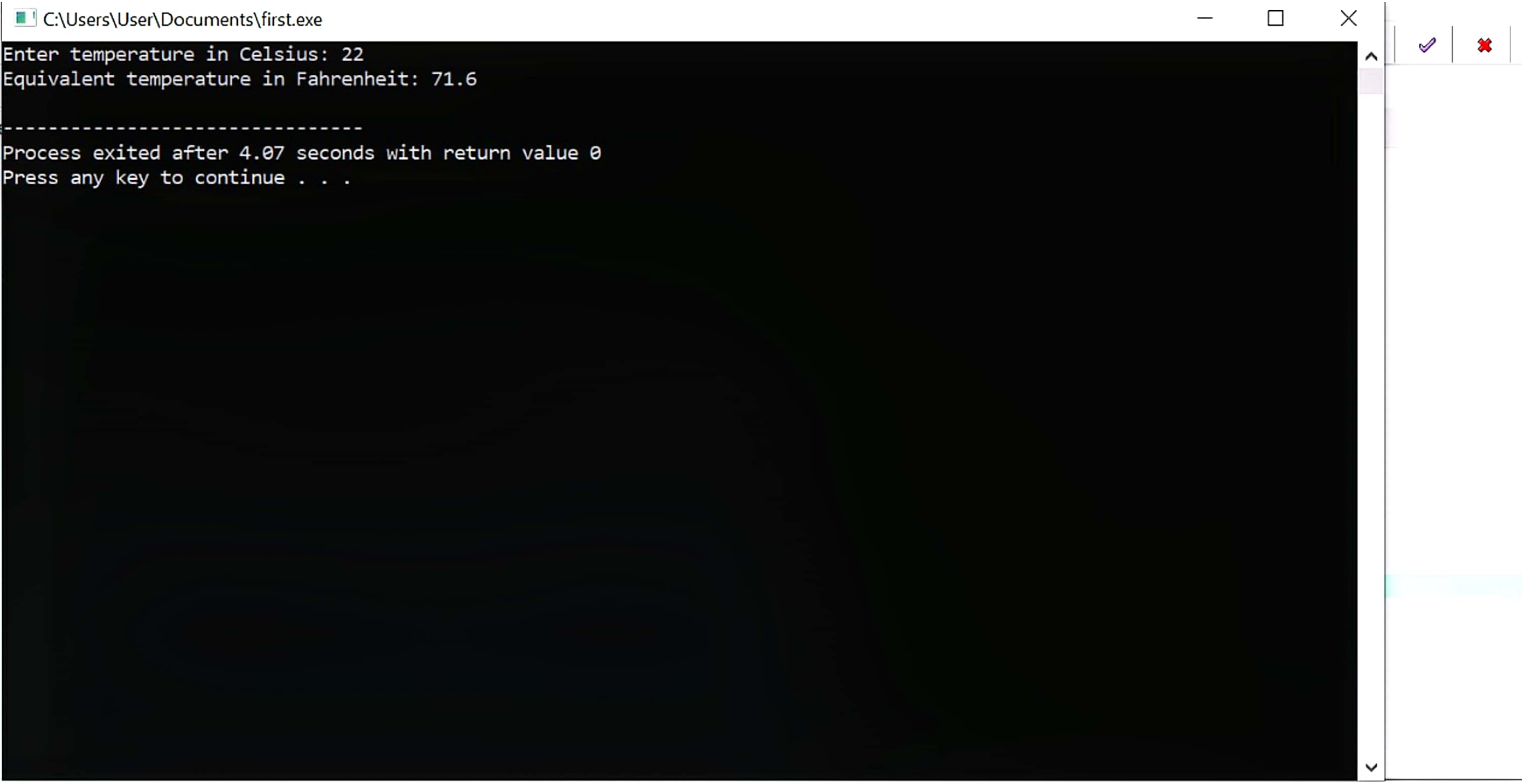


TASK #03

Write a program that prompts the user to enter their age use if else statement to check if the user is a minor (age less than 18) or an adult (age 18 or above).

Display message: "You are a minor" or "You are an adult".

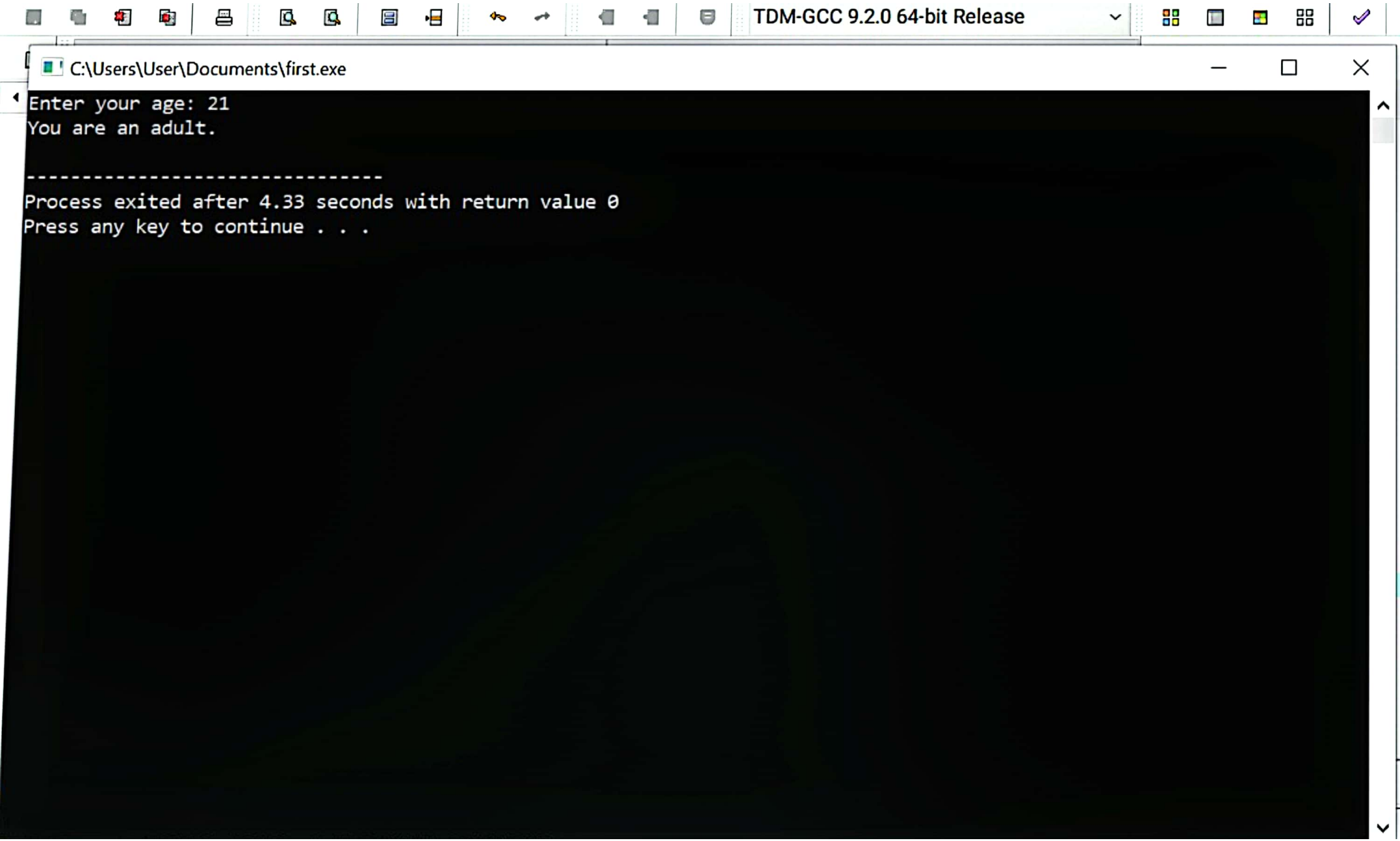
(globals)

first.cpp

```cpp
#include <iostream>
using namespace std;

int main() {
    // Declare a variable for age
    int age;

    // Prompt the user to enter their age
    cout << "Enter your age: ";
    cin >> age;

    // Check if the user is a minor or an adult
    if (age < 18) {
        cout << "You are a minor." << endl;
    } else {
        cout << "You are an adult." << endl;
    }

    return 0;
}
```

Resources | Compile Log | Debug | Find Results | Console | Close

```
- Output Filename: C:\Users\User\Documents\first.exe
- Output Size: 2.98873424530029 MiB
```



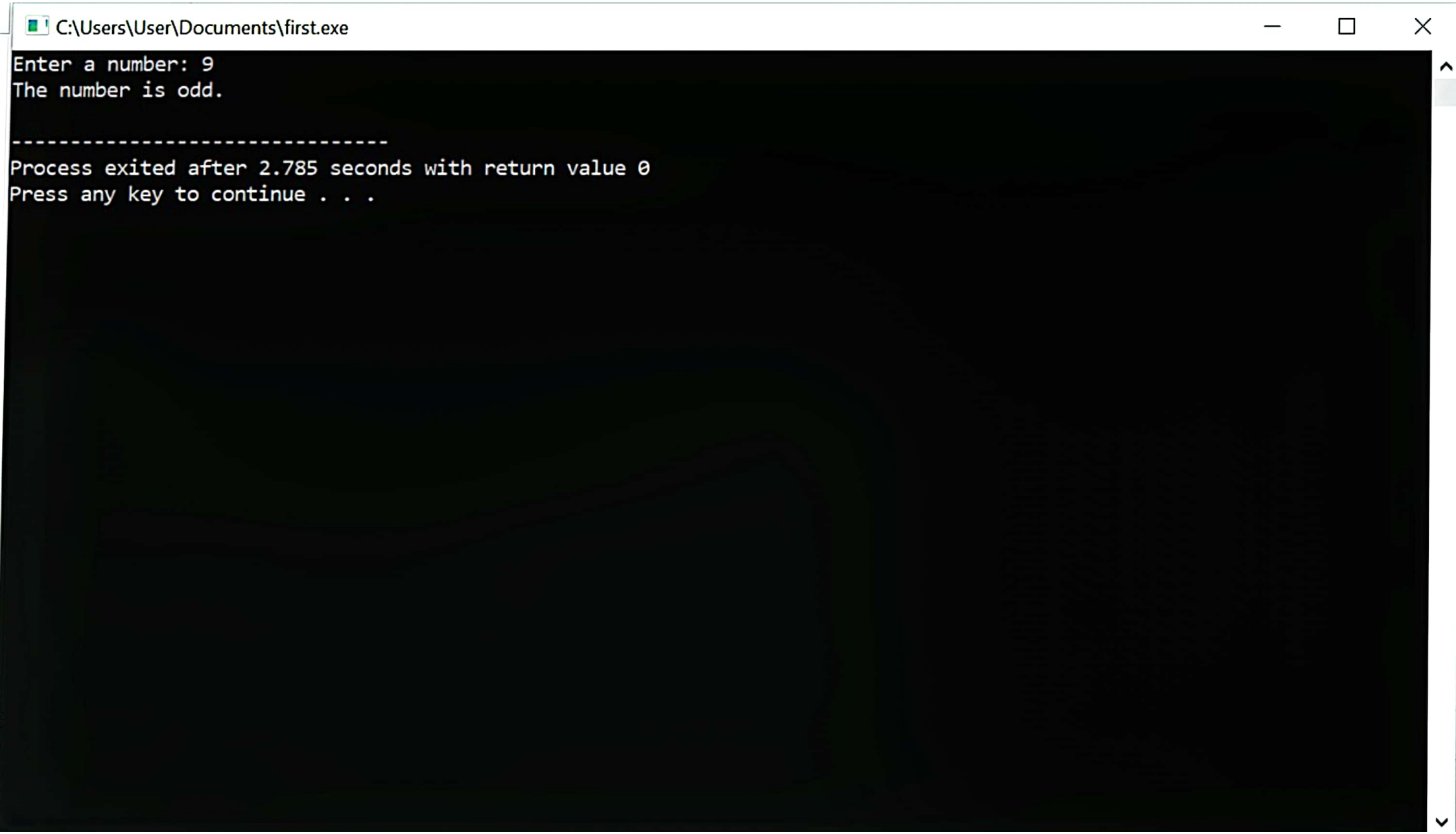
TASK 4

Write a program to check whether a number entered by the user is even or odd. Use an if-else statment to display either "The number is even or "The number is odd".

(globals)

first.cpp

```cpp
#include <iostream>
using namespace std;

int main() {
    // Declare a variable for the number
    int number;

    // Prompt the user to enter a number
    cout << "Enter a number: ";
    cin >> number;

    // Check if the number is even or odd
    if (number % 2 == 0) {
        cout << "The number is even." << endl;
    } else {
        cout << "The number is odd." << endl;
    }

    return 0;
}
```



Task 5

Write a program that takes the marks of a student in three subjects as input. Use an if-else if ladder to calculate the grade as follows.

Marks >= 90 : Grade A
Marks >= 80 : Grade B
Marks >= 70 : Grade C
Marks >= 60 : Grade D
Marks < 60 : Grade F

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TDM-GCC 9.2.0 64-bit Release

(globals)

[*] first.cpp

```
10      cin >> marks1;
11
12      cout << "Enter marks for subject 2: ";
13      cin >> marks2;
14
15      cout << "Enter marks for subject 3: ";
16      cin >> marks3;
17
18      // Calculate the average marks
19      average = (marks1 + marks2 + marks3) / 3;
20
21      // Determine the grade based on the average
22      if (average >= 90) {
23          cout << "Grade: A" << endl;
24      } else if (average >= 80) {
25          cout << "Grade: B" << endl;
26      } else if (average >= 70) {
27          cout << "Grade: C" << endl;
28      } else if (average >= 60) {
29          cout << "Grade: D" << endl;
30      } else {
31          cout << "Grade: F" << endl;
32      }
33
34      return 0;
35  }
```

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rt Compilation

```
- Output Filename: C:\Users\User\Documents\first.exe
- Output Size: 2.98873424530029 MiB
- Compilation Time: 1.08s
```