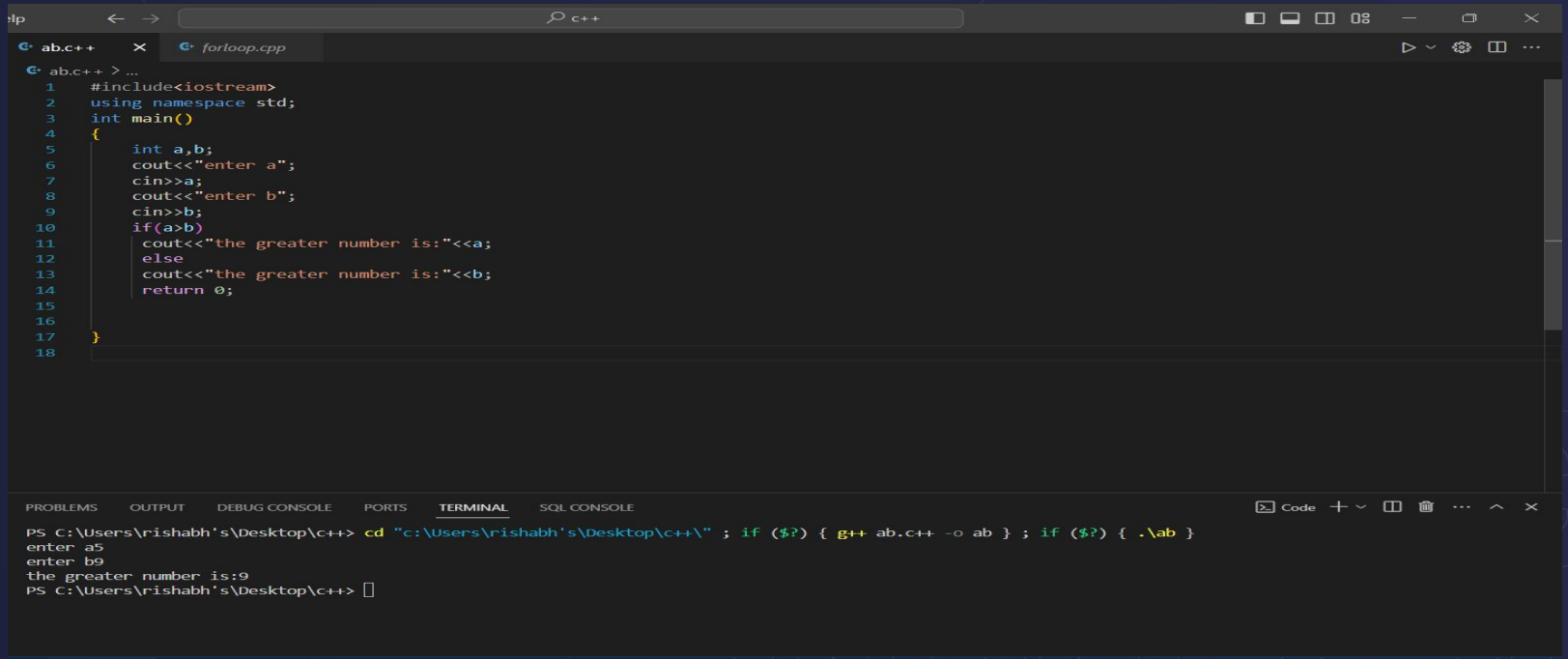
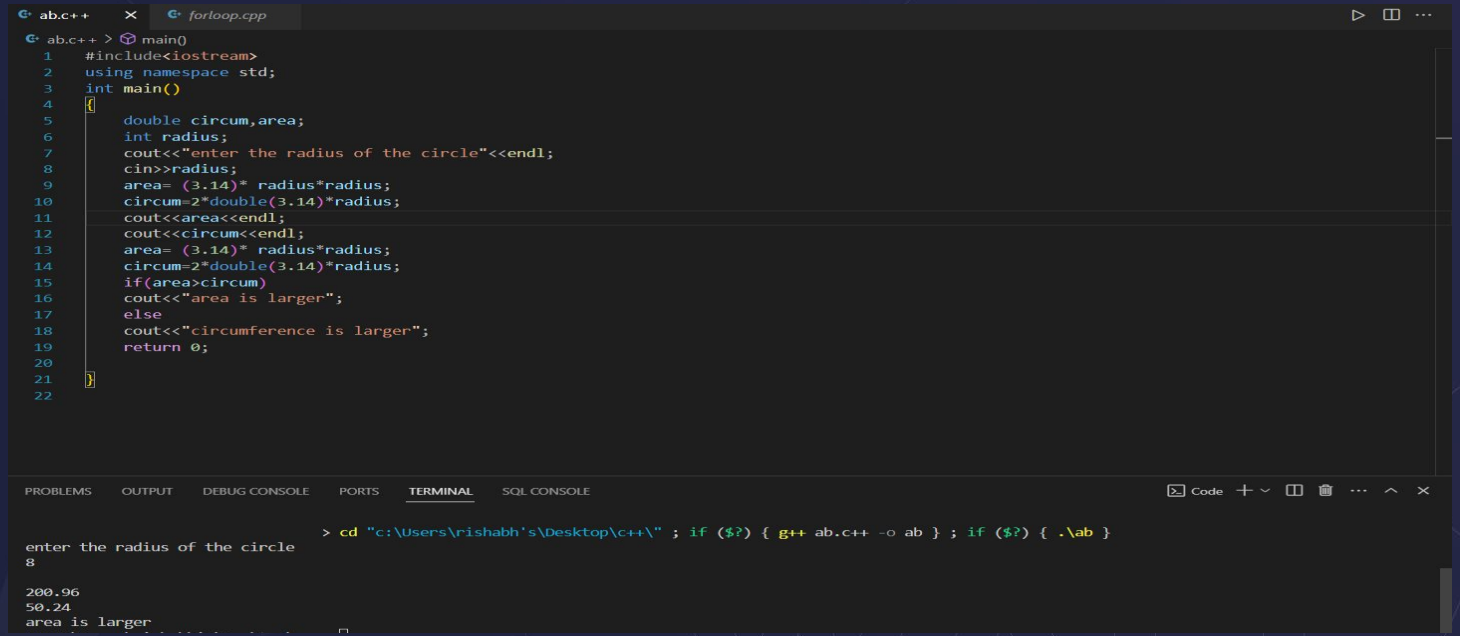
Assignment : L3

If-Else

Ques : Take 2 integers input and print the greatest of them.



Ques : Given the radius of the circle predict whether numerically area of this circle is larger than the circumference or not.



Ques : Any year is input through the keyboard. Write a program to determine whether the year is a leap year or not. (Considering leap year occurs after every 4 years)

ab.c++ > main()

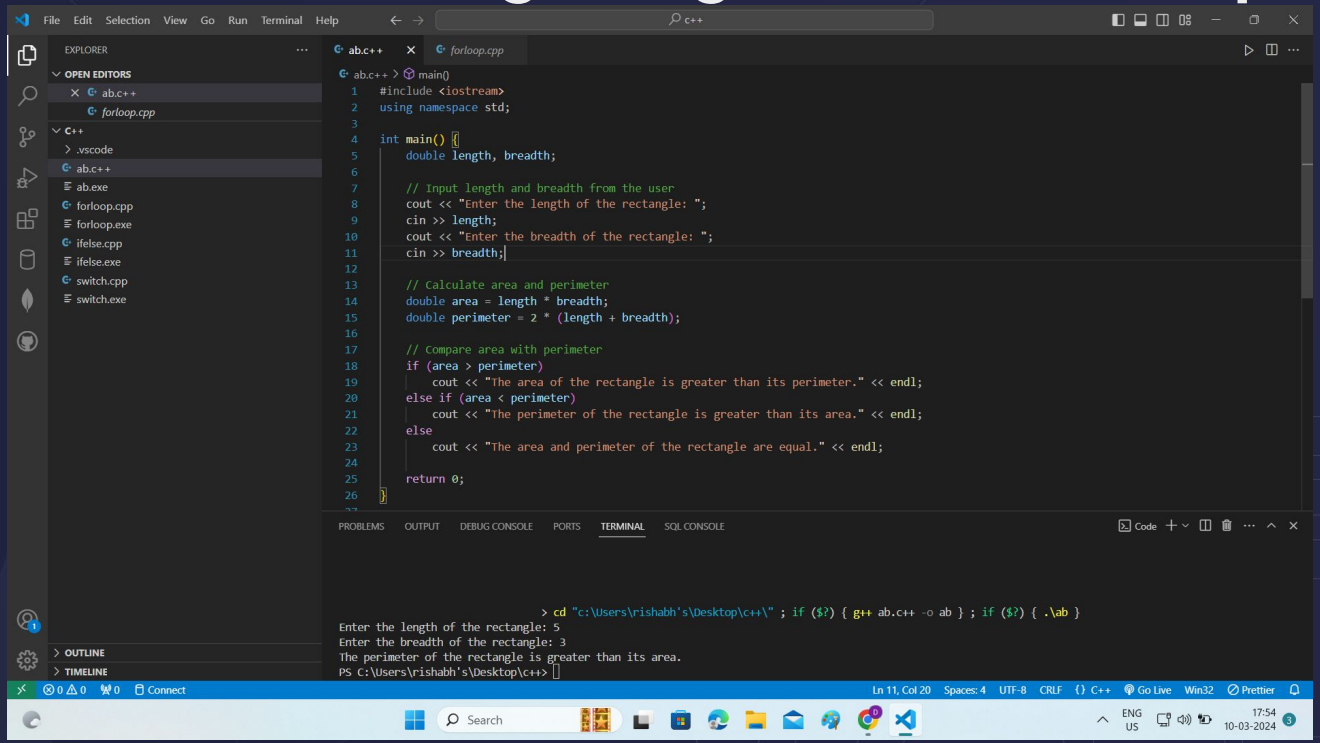
```cpp
#include <iostream>
using namespace std;

int main() {
    int year;

    // Input year from the user
    cout << "Enter a year: ";
    cin >> year;

    // Check if the year is divisible by 4
    if (year % 4 == 0) {
        // Check if it is divisible by 100 and not divisible by 400
        if (year % 100 == 0 && year % 400 != 0)
            cout << year << " is not a leap year." << endl;
        else
            cout << year << " is a leap year." << endl;
    } else {
        cout << year << " is not a leap year." << endl;
    }

    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE PORTS TERMINAL SQL CONSOLE

Code

```
> cd "c:\Users\rishabh's\Desktop\c++\" ; if ($?) { g++ ab.c++ -o ab } ; if ($?) { .\ab }
Enter a year: 2002
2002 is not a leap year.
PS C:\Users\rishabh's\Desktop\c++>
```

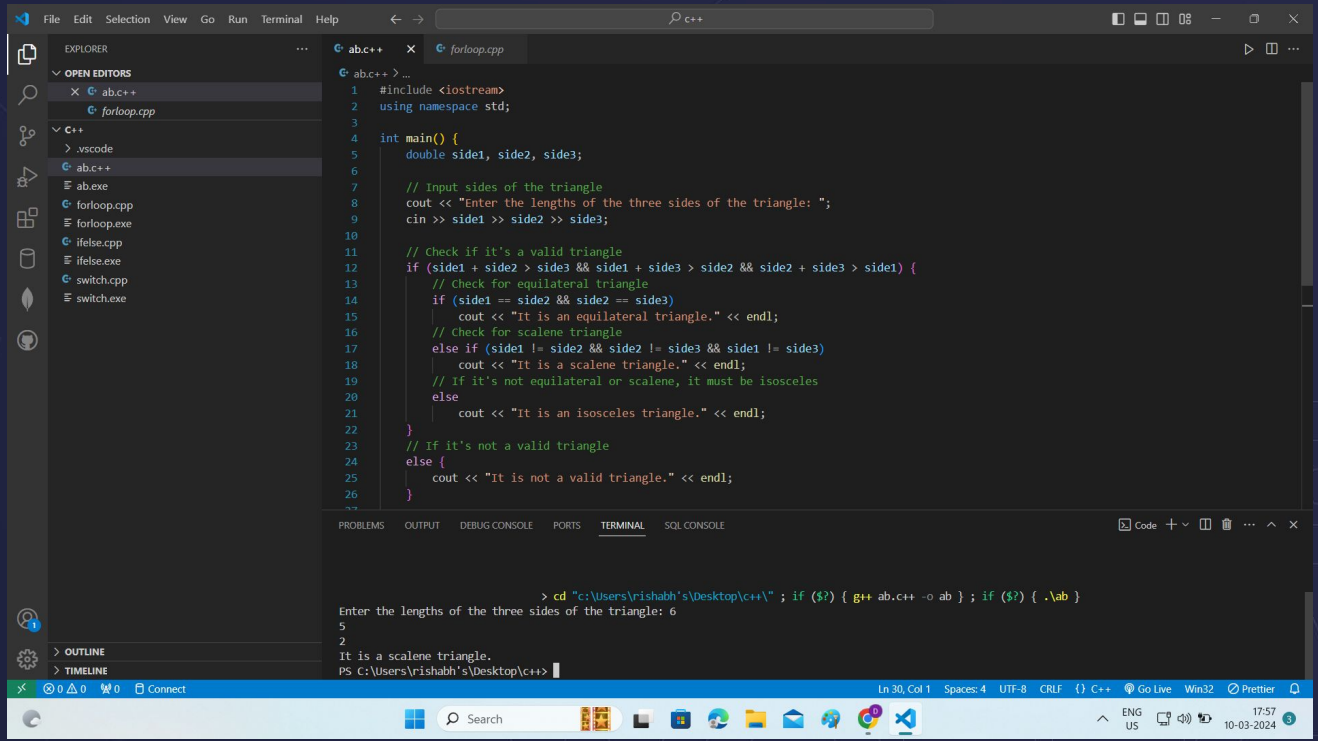
Ques : Given the length and breadth of a rectangle, write a program to find whether numerically the area of the rectangle is greater than its perimeter.



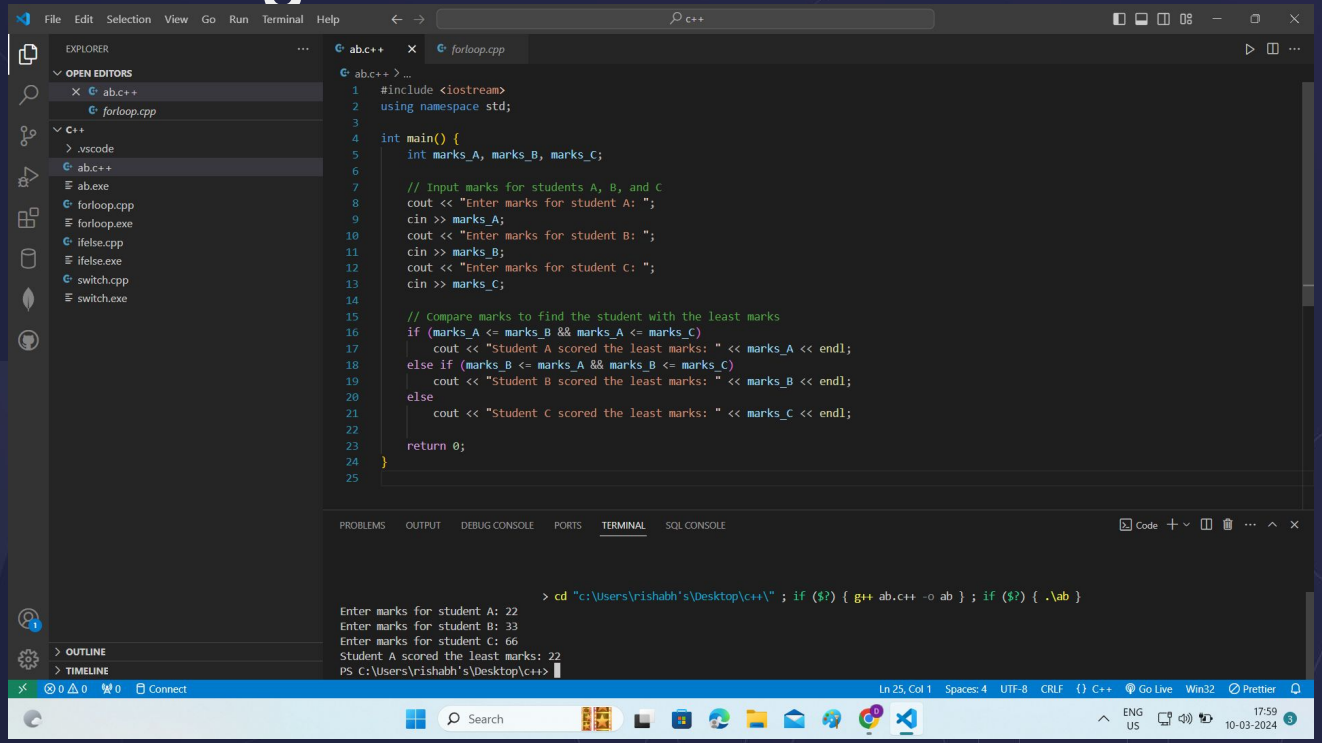
```cpp
#include <iostream>
using namespace std;

int main() {
    double length, breadth;

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

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

    // Compare area with perimeter
    if (area > perimeter)
        cout << "The area of the rectangle is greater than its perimeter." << endl;
    else if (area < perimeter)
        cout << "The perimeter of the rectangle is greater than its area." << endl;
    else
        cout << "The area and perimeter of the rectangle are equal." << endl;

    return 0;
}
```

```
> cd "c:\Users\rishabh's\Desktop\c++\" ; if ($?) { g++ ab.c++ -o ab } ; if ($?) { .\ab }
Enter the length of the rectangle: 5
Enter the breadth of the rectangle: 3
The perimeter of the rectangle is greater than its area.
PS C:\Users\rishabh's\Desktop\c++>
```

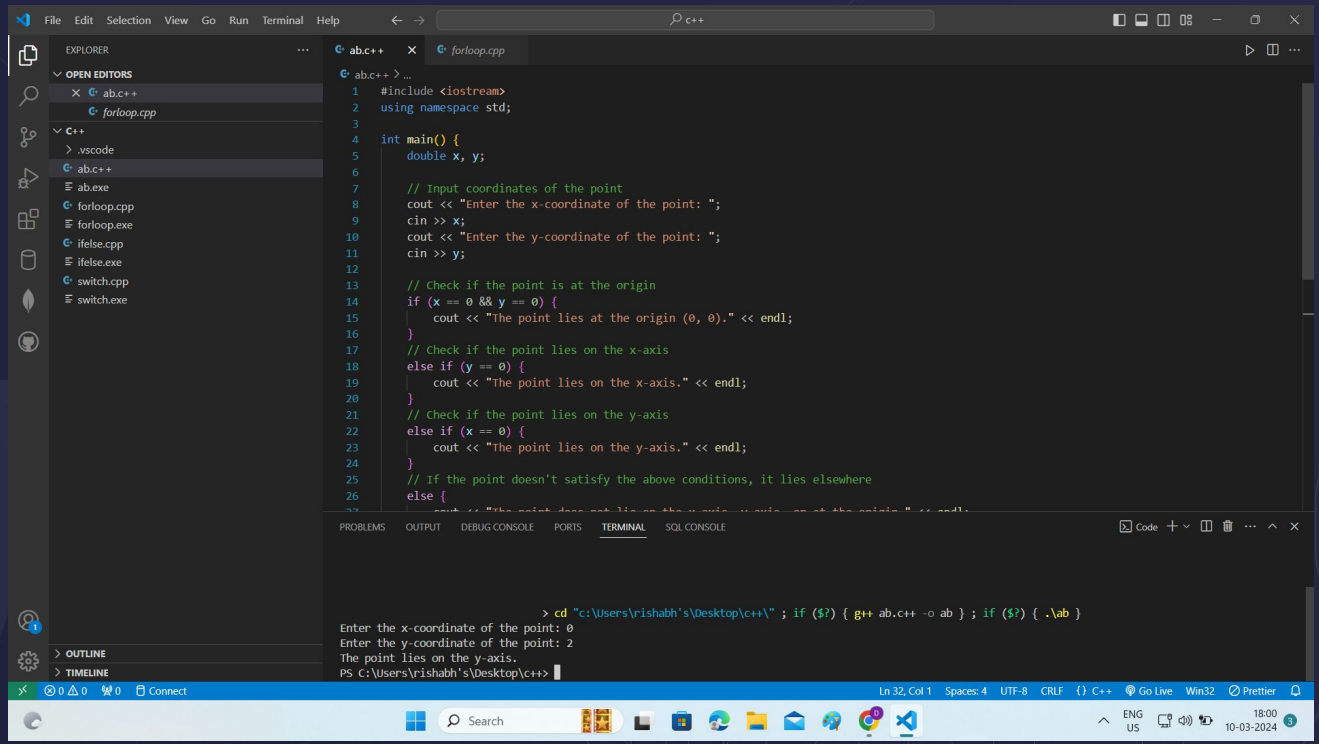
Ques : Write a program to input sides of a triangle and check whether a triangle is equilateral, scalene or isosceles triangle.



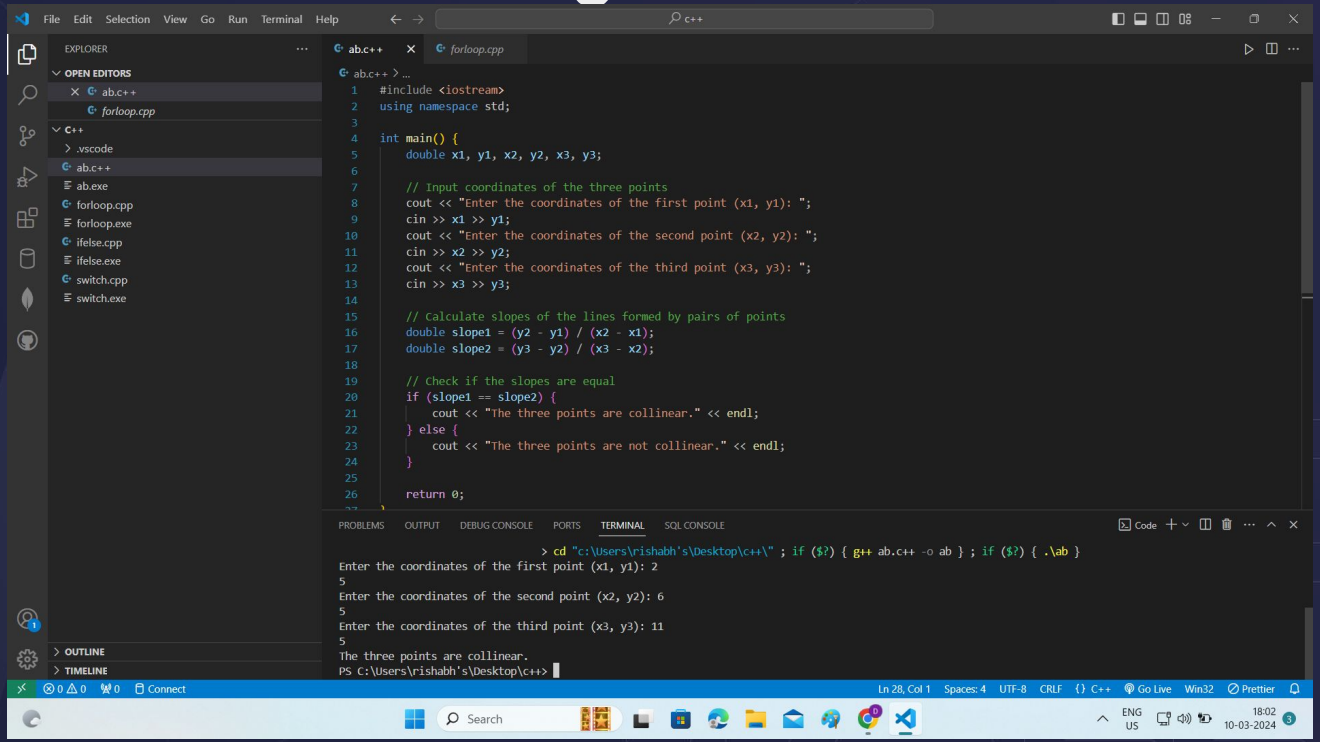
Ques : If the marks of A, B and C are input through the keyboard, write a program to determine the student scoring least marks.



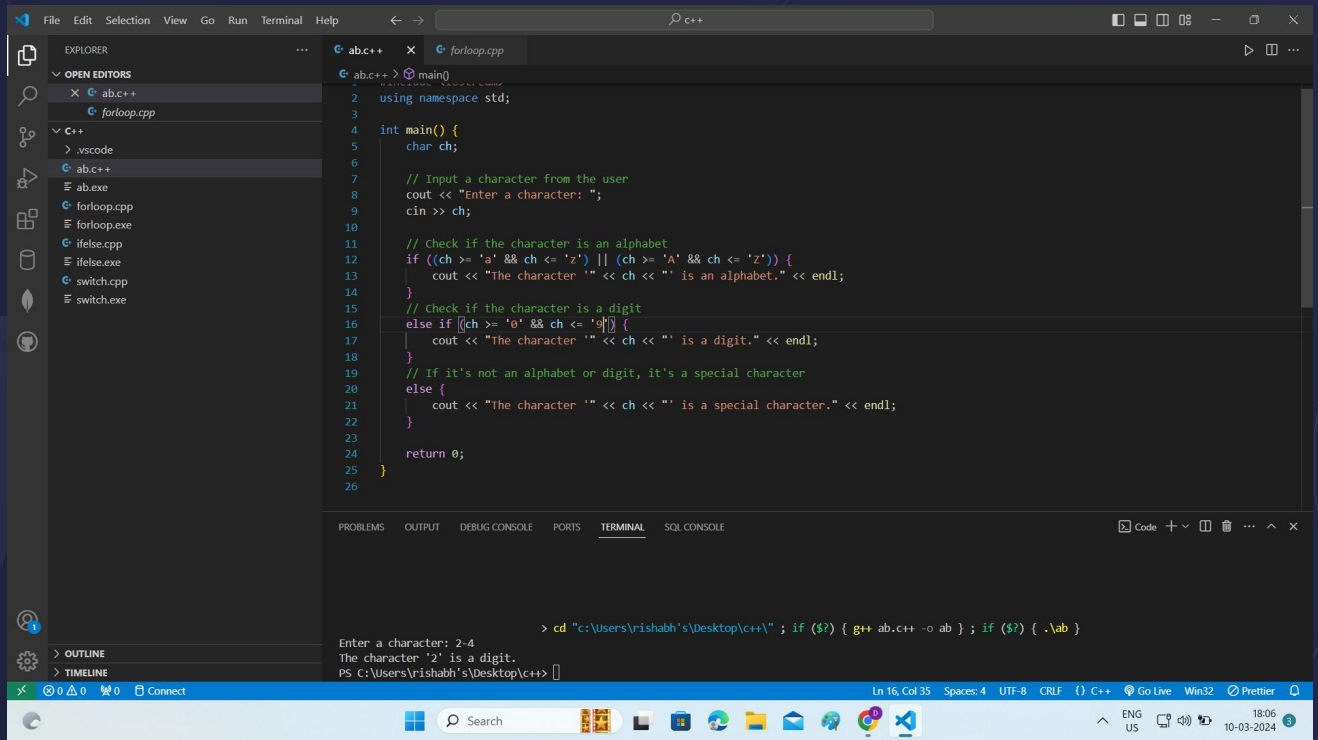
Ques : Given a point (x, y), write a program to find out if it lies on the x-axis, y-axis or at the origin, viz. (0, 0).



Ques : Given three points (x1, y1), (x2, y2) and (x3, y3), write a program to check if all the three points fall on one straight line.



Ques : Write a C++ program to input any character and check whether it is the alphabet, digit or special character.



Predict the output

```
int main() {
    int a = 500, b, c ;
    if ( a ⩾ 400 )
        b = 300 ;
        c = 200 ;
        cout << "value of b
    and c are respectively “
    <<b<<” and ” << c  ;
    return 0;
}
```

ANSWER:
Value of b and c are respectively 300 and 400

THANK YOU