Shri Vile Parle Kelavani Mandal's

INSTITUTE OF TECHNOLOGY

DHULE (M.S.)

DEPARMENT OF COMPUTER ENGINEERING

Subject: Competitive Programming Lab (BTCOL606)

Remark

Name : Mohammed Meraj Mohammed Ashfaque **Roll No. :** 32

Class : TY Computer **Batch : T2** **Division: T**

Signature

Expt. No. :02 **Date : 10/03/2025**

Title : Sales by Match Problem

Language used : C++

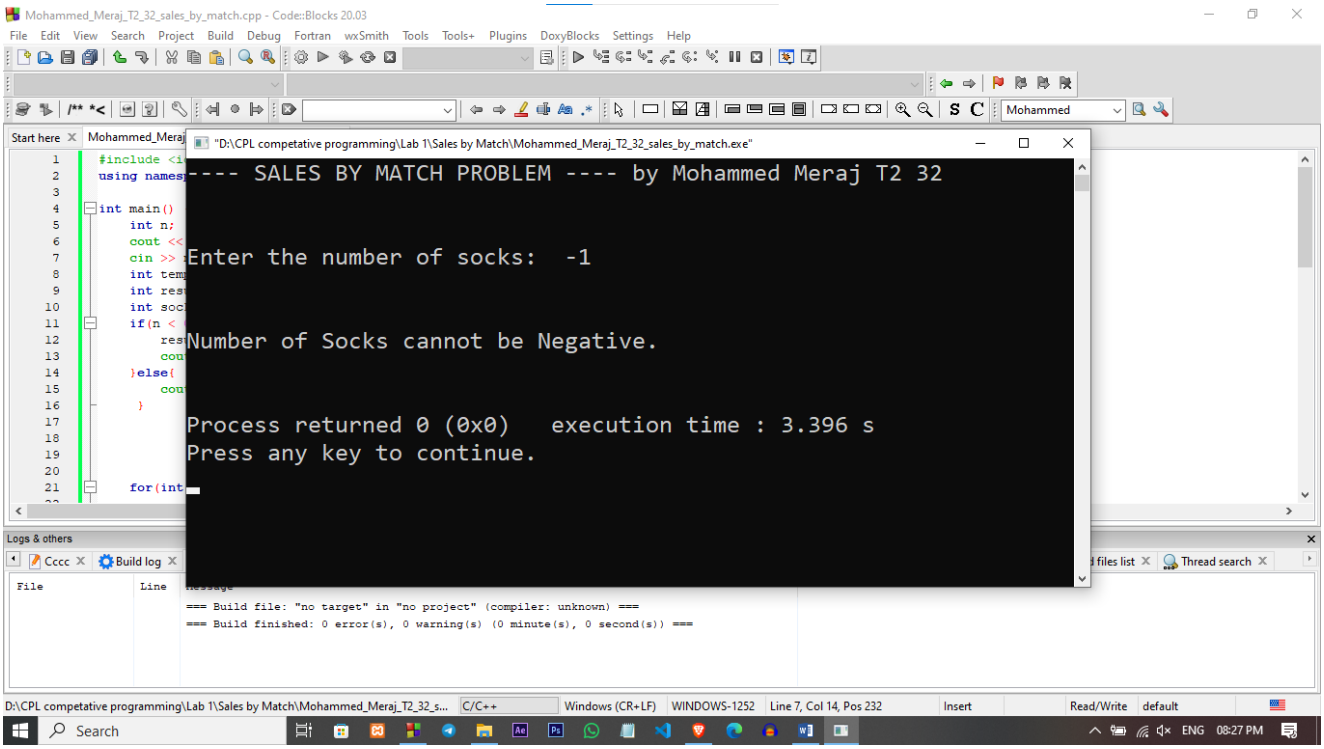
Code:

```
#include <iostream>   //Mohammed Meraj Mohammed Ashfaque T2 32
using namespace std;

int main() {
   int n;
   cout << "---- SALES BY MATCH PROBLEM ---- by Mohammed Meraj T2
32\n\n\nEnter the number of socks:  ";
   cin >> n;
   int temporary=0;
   int result_limiter = 0;
   int socks[n];
   if(n < 0){
      result_limiter = 1;
      cout << "\n\nNumber of Socks cannot be Negative. \n\n";
   }else{
      cout << "Enter the color code of each sock: " << endl;
    }
   for(int i = 0; i < n; i++) {
         cin >> temporary;
     if(temporary > 0){
```

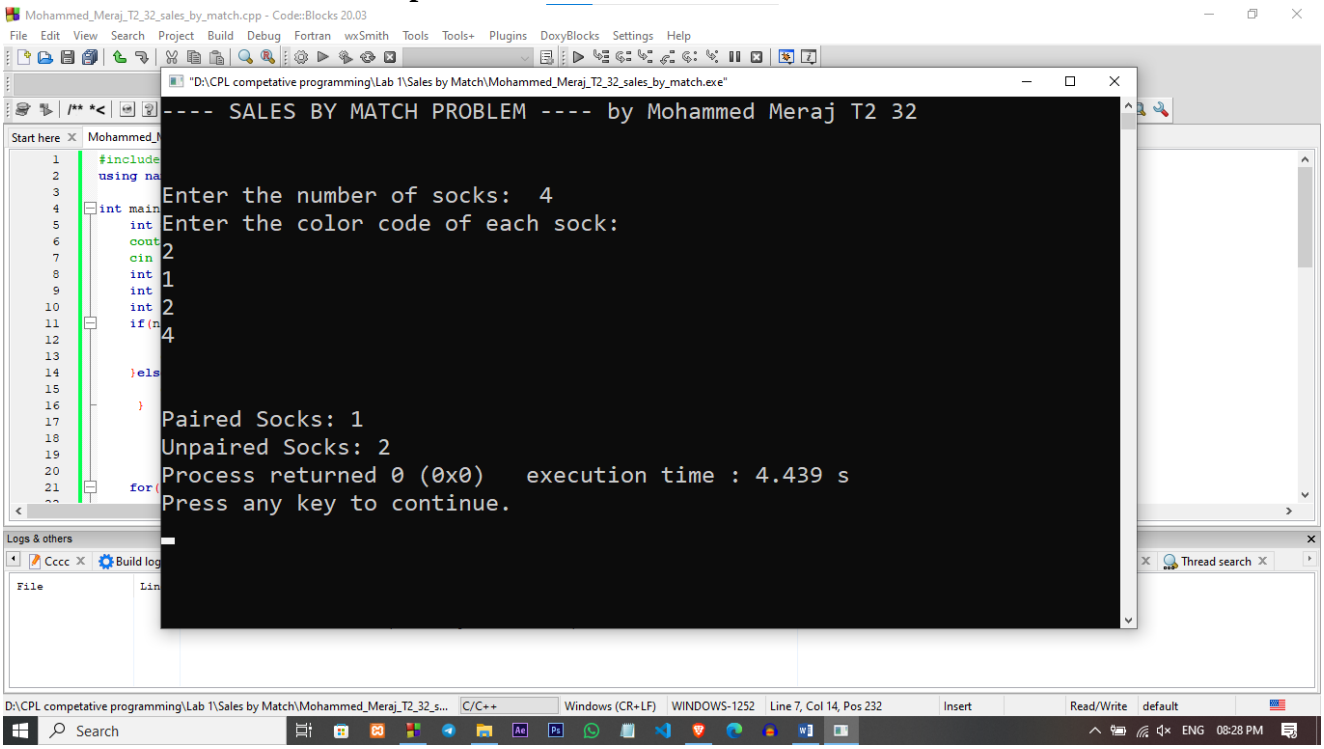
```
        socks[i] = temporary;
      }else{
        cout << "Color Code Cannot be negative \n";
        result_limiter =1;
        break;
      }
    int totalPairedSocks = 0;

    for(int i = 0; i < n; i++) {
       for(int j = i+1; j < n; j++) {
          if(socks[i] == socks[j]) {
                if(socks[i] != -1){
                   totalPairedSocks += 2;
                   socks[i] = -1;
                   socks[j] = -1;
                }else{

                }

             if(socks[i] != -1 || socks[j] != -1){
               socks[i] = -1;
               socks[j] = -1;
             }

             break;
       }
      }
    }


    if(result_limiter == 0){
       cout << "\n\nPaired Socks: " << totalPairedSocks / 2;
       cout << "\nUnpaired Socks: " << n - totalPairedSocks;

    }

    return 0;
}
```

Output:

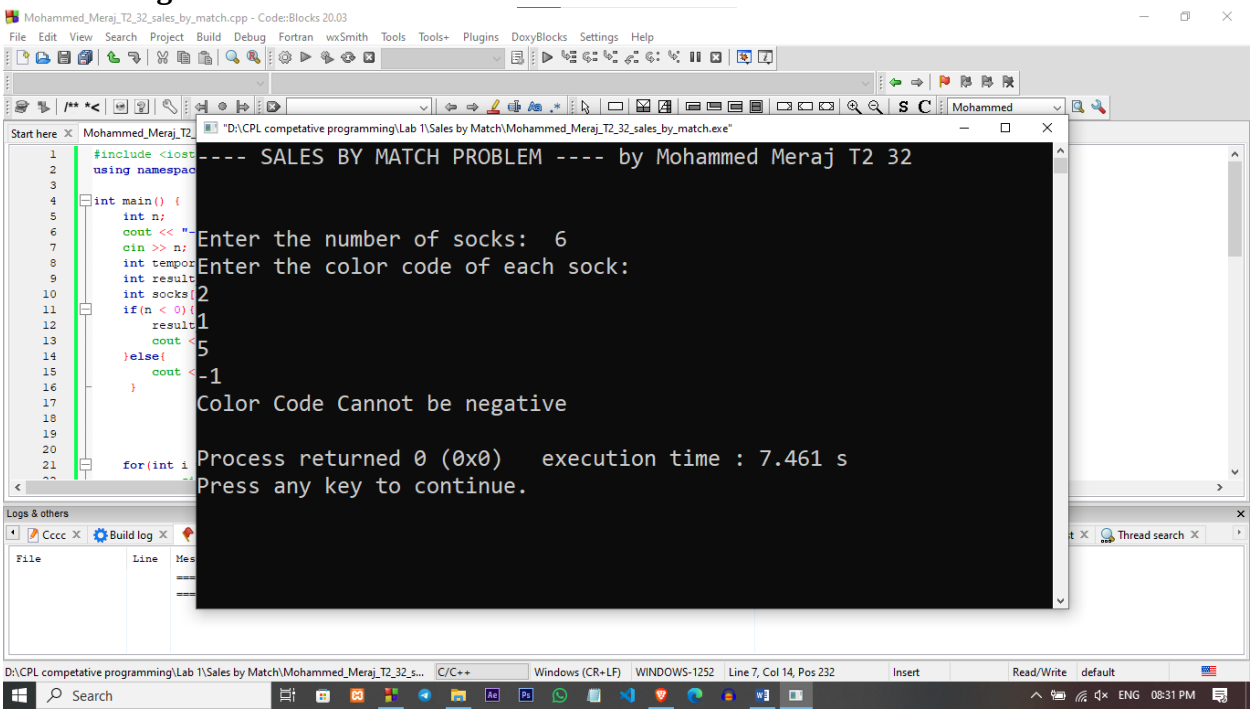
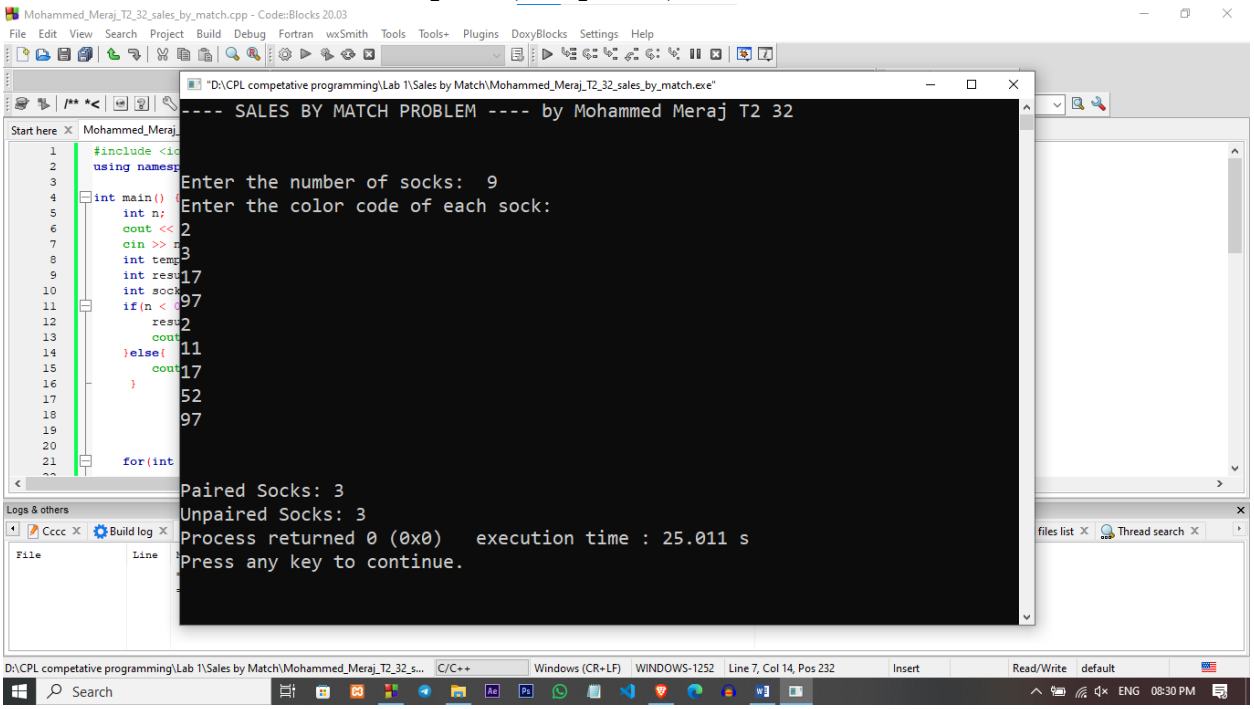
Case 1 : Giving Negative Value in Number of Socks



Case 2 : Four socks with One pairs



Case 3 : Negative value in Color Code



Case 4 : Nine socks with Three pairs (3 unpaired)