OBJECT ORIENTED PROGRAMMING

Theory Assignment…

**Submitted by:**

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***Submitted to:***

**Classes and Objects**

#include <iostream>

using namespace std;

class Student

{

    int scores[5];

public:

    void input()

    {

        for(int i=0; i<5; i++)

        {

            cin >> scores[i];

        }

    }

    int calculateTotalScore()

    {

        int totalScore = 0;

        for(int i=0; i<5; i++)

        {

            totalScore += scores[i];

        }

        return totalScore;

    }

};

int main()

{

    int n;

    cin >> n;

    Student students[n];

    for(int i=0; i<n; i++)

    {

        students[i].input();

    }

    int kristenTotalScore = students[0].calculateTotalScore();

    int count = 0;

    for(int i=1; i<n; i++)

    {

        int totalScore = students[i].calculateTotalScore();

        if(totalScore > kristenTotalScore)

        {

            count++;

        }

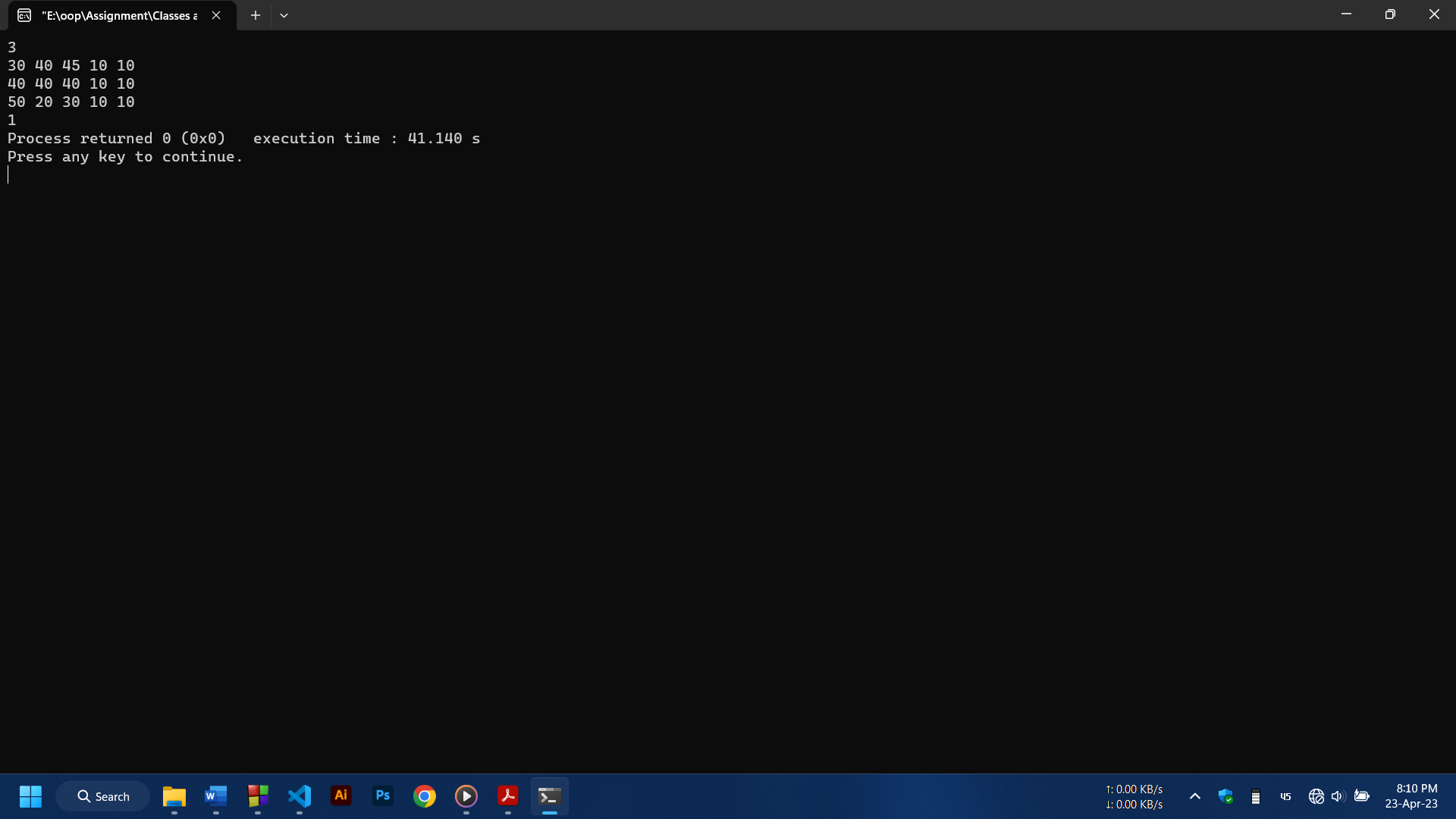
    }

    cout << count;

    return 0;

}

***Output***



**Class**

#include <iostream>

using namespace std;

class Student

{

    int age;

    string first\_name,last\_name;

    int standard;

public:

    void set\_age(int a)

    {

        age = a;

    }

    int get\_age()

    {

        return age;

    }

    void set\_first\_name(string fn)

    {

        first\_name = fn;

    }

    string get\_first\_name()

    {

        return first\_name;

    }

    void set\_last\_name(string ln)

    {

        last\_name = ln;

    }

    string get\_last\_name()

    {

        return last\_name;

    }

    void set\_standard(int s)

    {

        standard = s;

    }

    int get\_standard()

    {

        return standard;

    }

    string to\_string()

    {

        string result;

        result += std::to\_string(age) + ",";

        result += first\_name + ",";

        result += last\_name + ",";

        result += std::to\_string(standard);

        return result;

    }

};

int main()

{

    int age, standard;

    string first\_name, last\_name;

    cin >> age >> first\_name >> last\_name >> standard;

    Student st;

    st.set\_age(age);

    st.set\_first\_name(first\_name);

    st.set\_last\_name(last\_name);

    st.set\_standard(standard);

    cout <<endl<< st.get\_age() << endl;

    cout << st.get\_last\_name() << ", " << st.get\_first\_name() << endl;

    cout << st.get\_standard() << endl<<endl;

    cout << st.to\_string() << endl;

    return 0;

}

***Output***