Practice sheet 4

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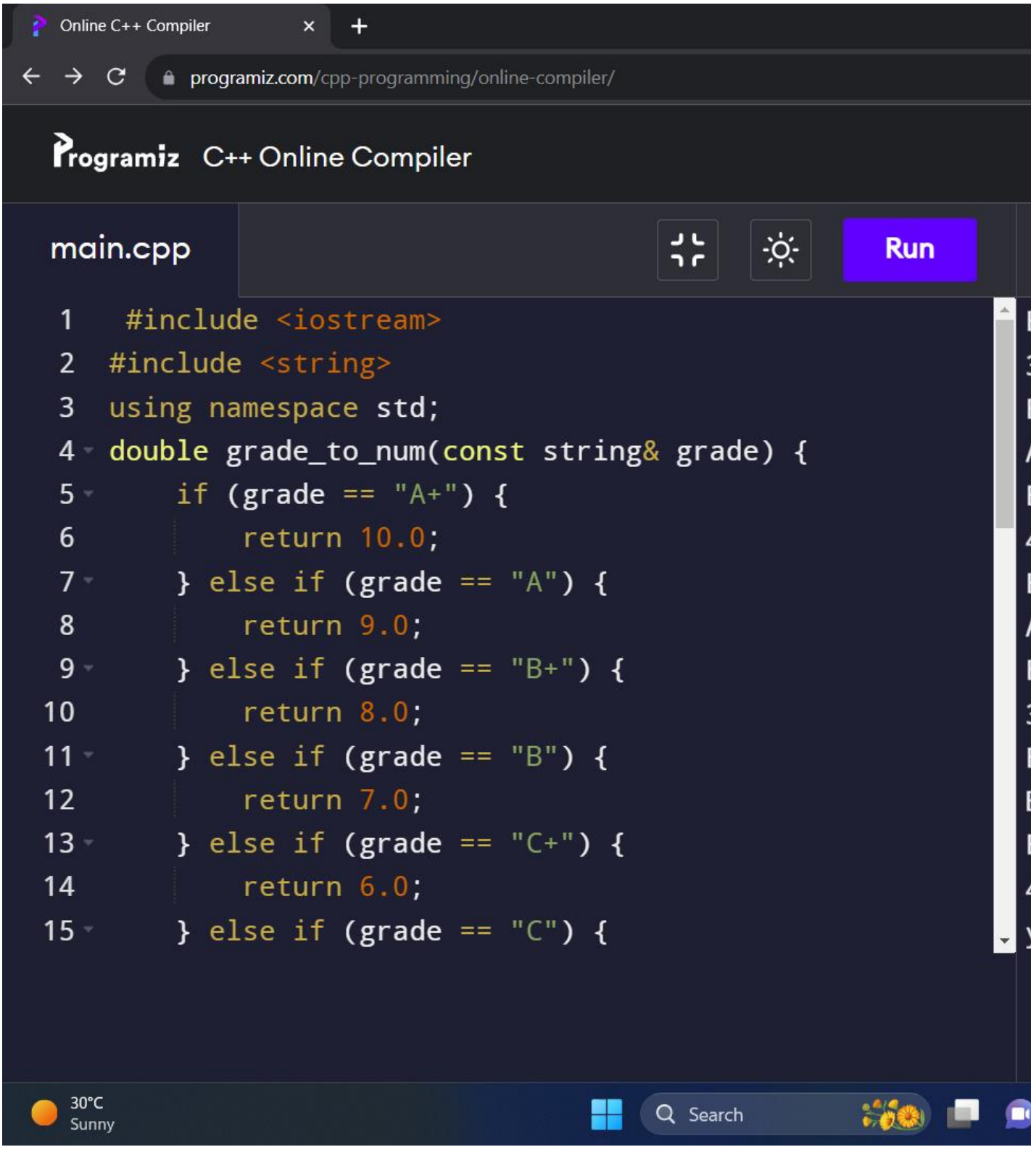
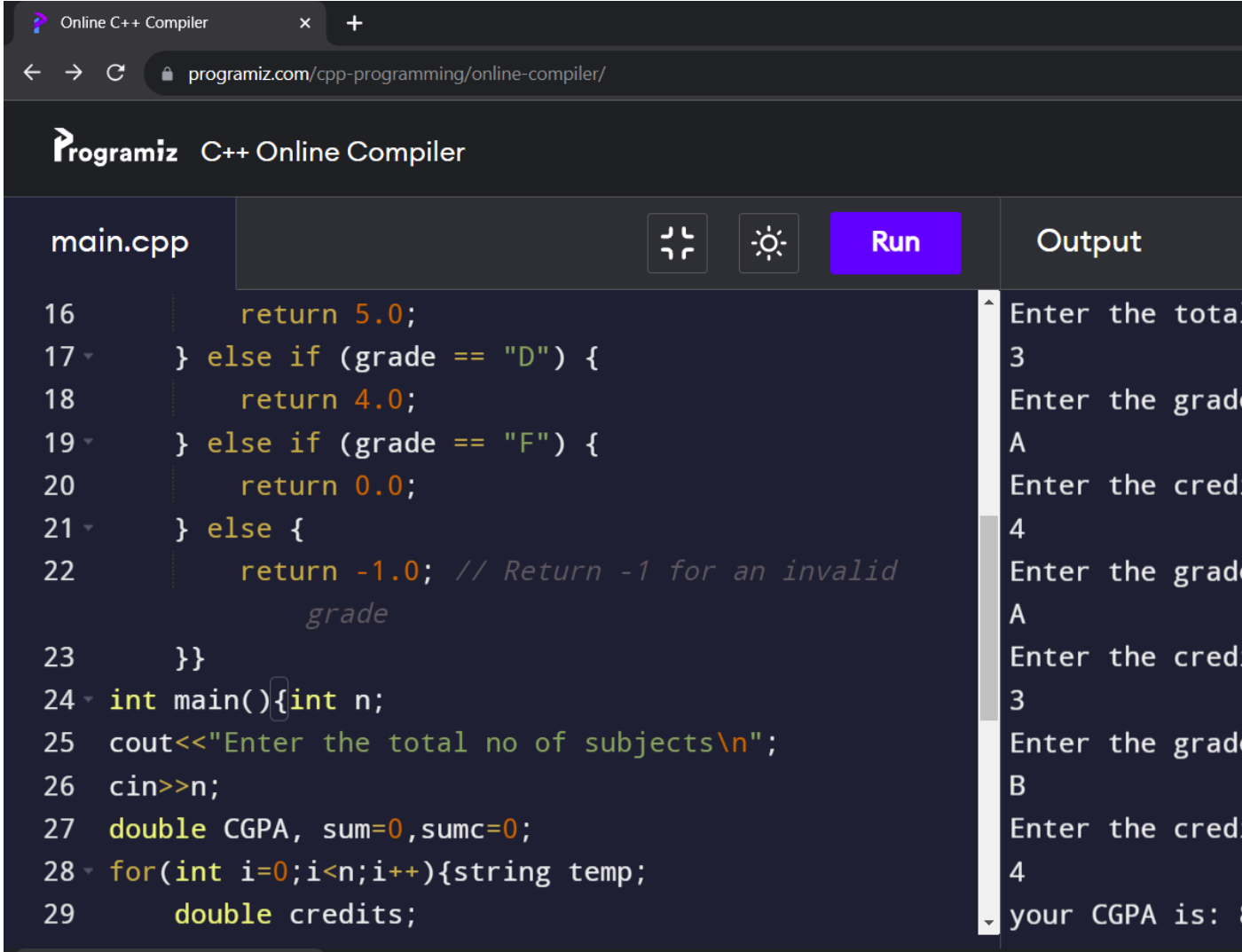
Electrical Engg.(EE4)

Ques1. Calculate CGPA from grades.

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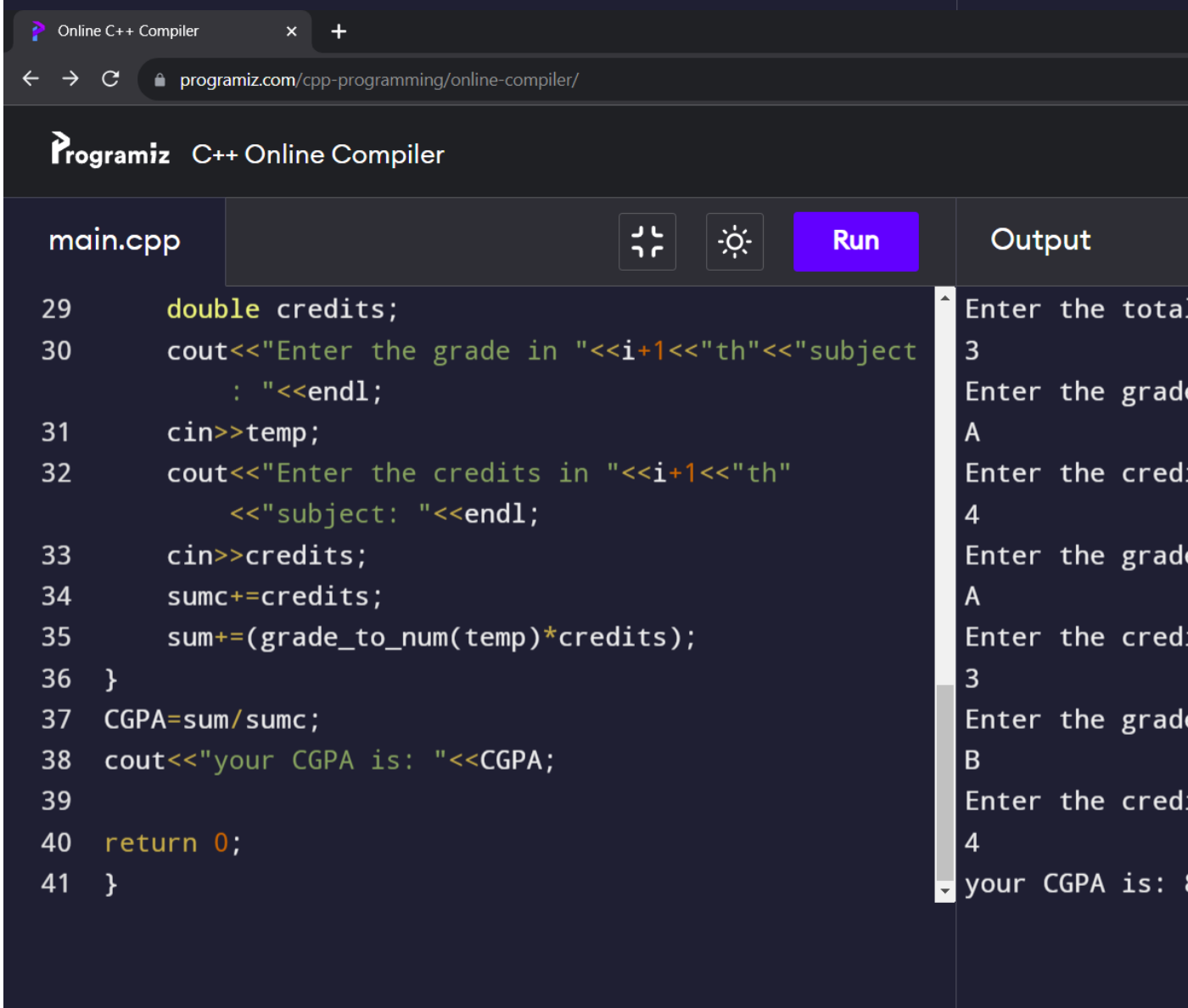
main.cpp
Run
Output
return 5.0;
} else if (grade == "D") {
return 4.0;
} else if (grade == "F") {
return 0.0;
} else {
return -1.0; // Return -1 for an invalid grade
}}
int main(){int n;
cout<<"Enter the total no of subjects\n";
cin>>n;
double CGPA, sum=0,sumc=0;
for(int i=0;i<n;i++){string temp;
double credits;
Enter the tota
3
Enter the grad
A
Enter the cred
4
Enter the grad
A
Enter the cred
3
Enter the grad
B
Enter the cred
4
your CGPA is: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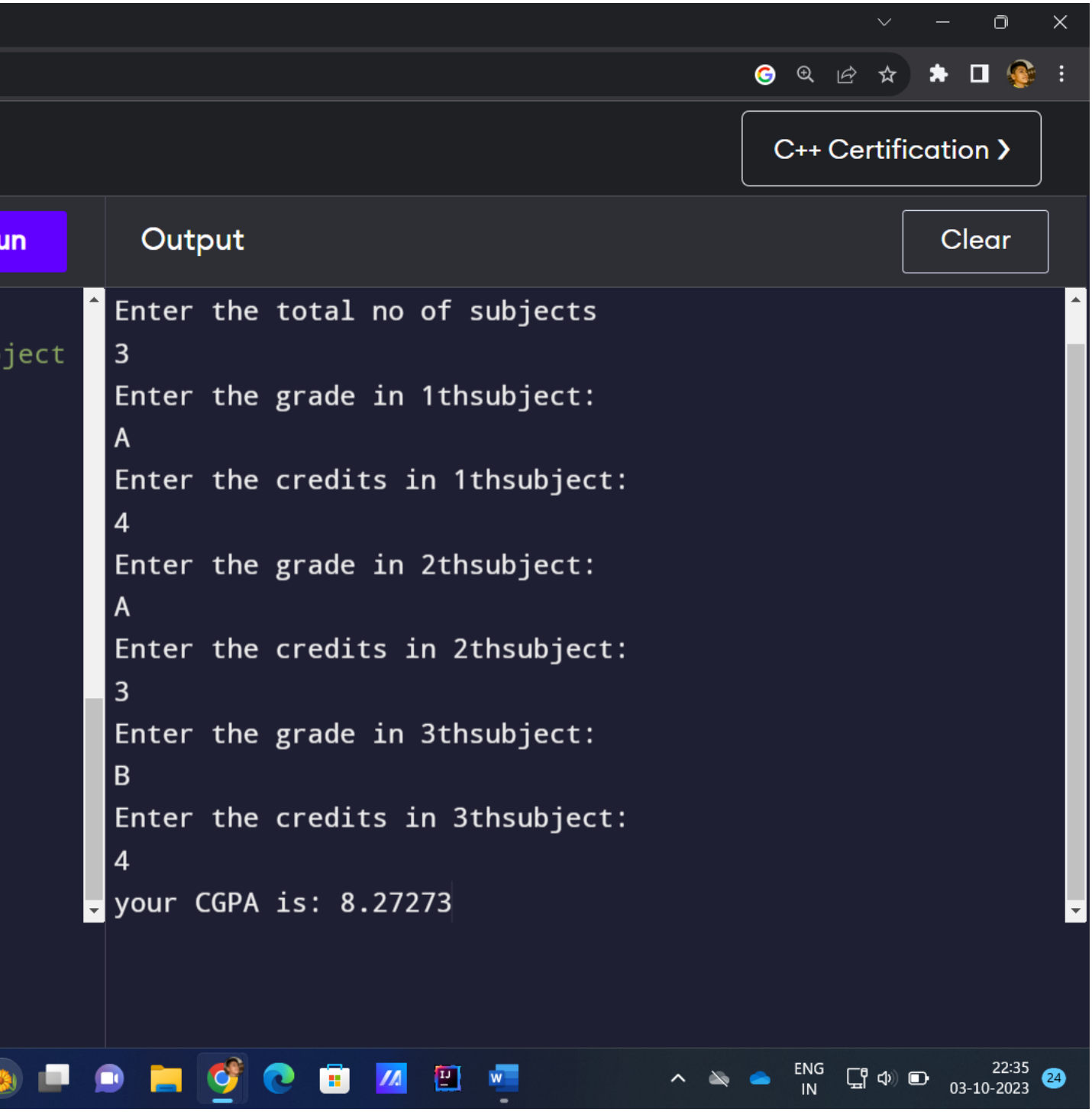
main.cpp
Run
Output
double credits;
cout<<"Enter the grade in "<<i+1<<"th"<<"subject : "<<endl;
cin>>temp;
cout<<"Enter the credits in "<<i+1<<"th" <<"subject: "<<endl;
cin>>credits;
sumc+=credits;
sum+=(grade_to_num(temp)*credits);
}
CGPA=sum/sumc;
cout<<"your CGPA is: "<<CGPA;
return 0;
}
Enter the tota
3
Enter the grad
A
Enter the cred
4
Enter the grad
A
Enter the cred
3
Enter the grad
B
Enter the cred
4
your CGPA is:


C++ Certification ›
un
Output
Clear
ject
Enter the total no of subjects
3
Enter the grade in 1thsubject:
A
Enter the credits in 1thsubject:
4
Enter the grade in 2thsubject:
A
Enter the credits in 2thsubject:
3
Enter the grade in 3thsubject:
B
Enter the credits in 3thsubject:
4
your CGPA is: 8.27273
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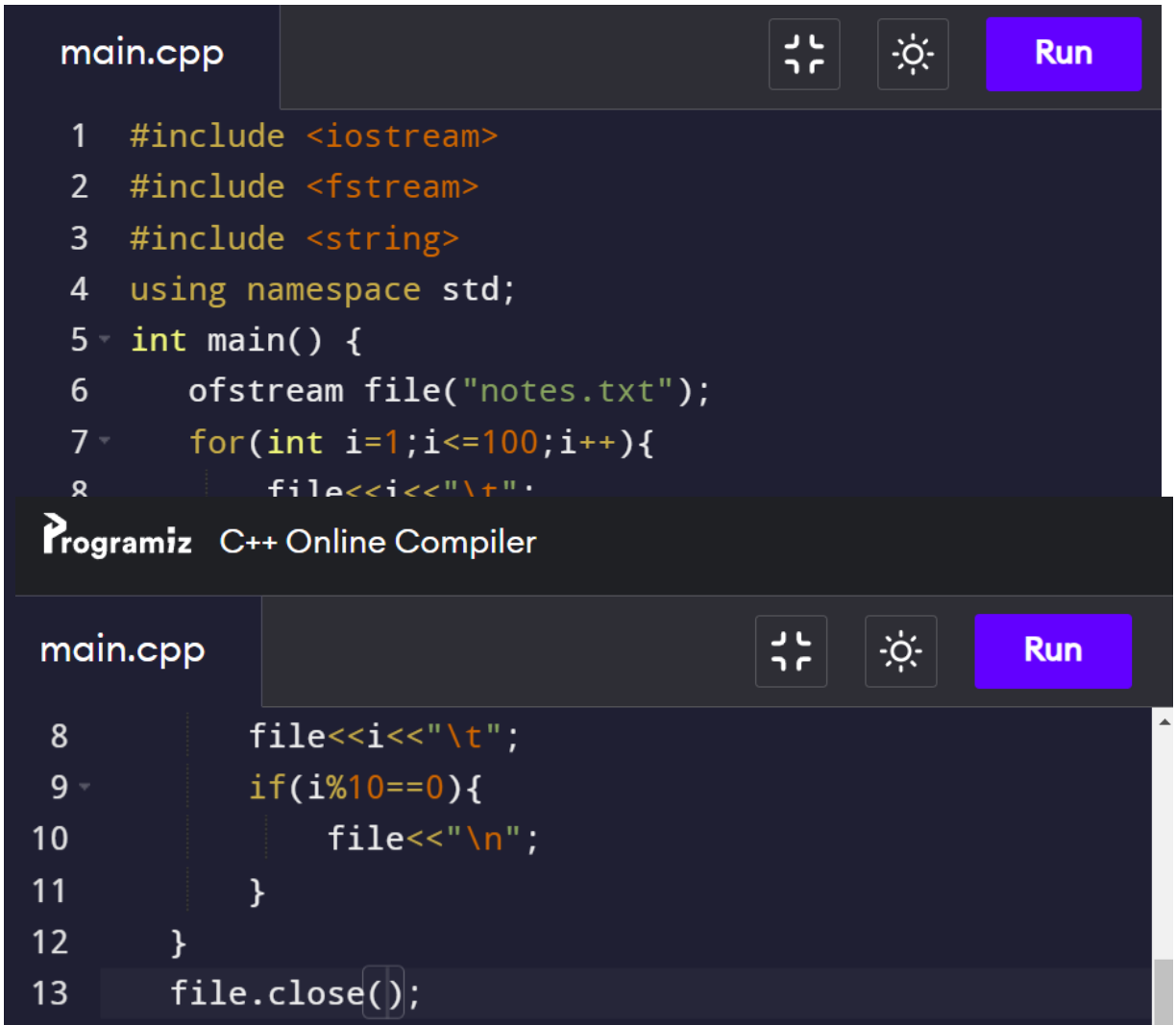
Ques2. Write 1-100 integers in a file named NAMES.TEXT .

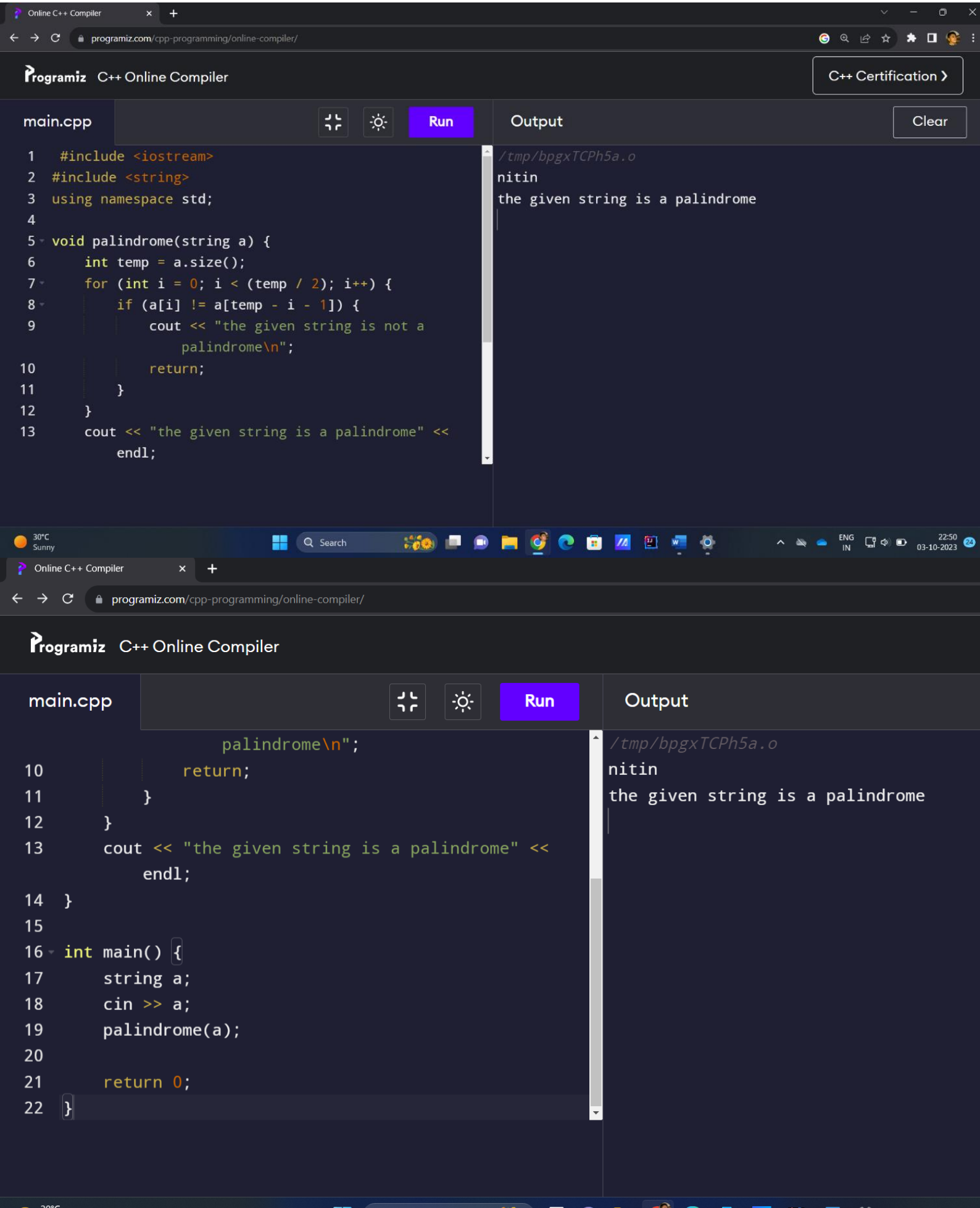


Output

Clear

```
/tmp/Hbz5ZCUOUn.o
1   2   3   4   5   6   7   8   9   10
11  12  13  14  15  16  17  18  19  20
21  22  23  24  25  26  27  28  29  30
31  32  33  34  35  36  37  38  39  40
41  42  43  44  45  46  47  48  49  50
51  52  53  54  55  56  57  58  59  60
61  62  63  64  65  66  67  68  69  70
71  72  73  74  75  76  77  78  79  80
81  82  83  84  85  86  87  88  89  90
91  92  93  94  95  96  97  98  99  100
```

Ques3. Write a program to check palindrome or no



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main.cpp

Run

Output

Clear

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

void palindrome(string a) {
    int temp = a.size();
    for (int i = 0; i < (temp / 2); i++) {
        if (a[i] != a[temp - i - 1]) {
            cout << "the given string is not a
                palindrome\n";
            return;
        }
    }
    cout << "the given string is a palindrome" <<
        endl;
```

```
/tmp/bpgxTCPh5a.o
nitin
the given string is a palindrome
```

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Search

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main.cpp

Run

Output

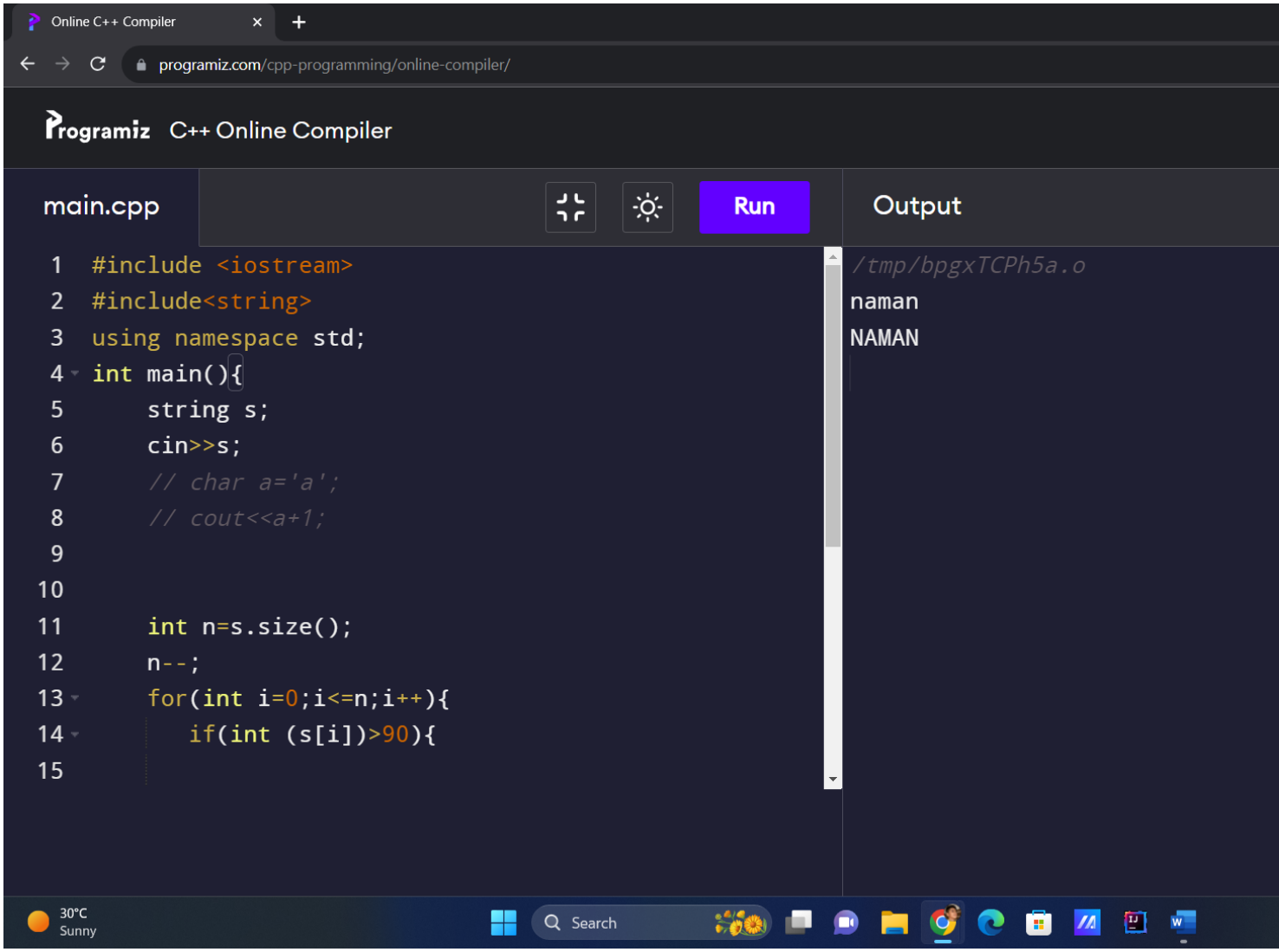
```
                palindrome\n";
            return;
        }
    }
    cout << "the given string is a palindrome" <<
        endl;
}

int main() {
    string a;
    cin >> a;
    palindrome(a);

    return 0;
}
```

```
/tmp/bpgxTCPh5a.o
nitin
the given string is a palindrome
```

Ques4. Write a program to convert lowercase to uppercase.



Ques5. Write program to add float and integers.

main.cpp

Run

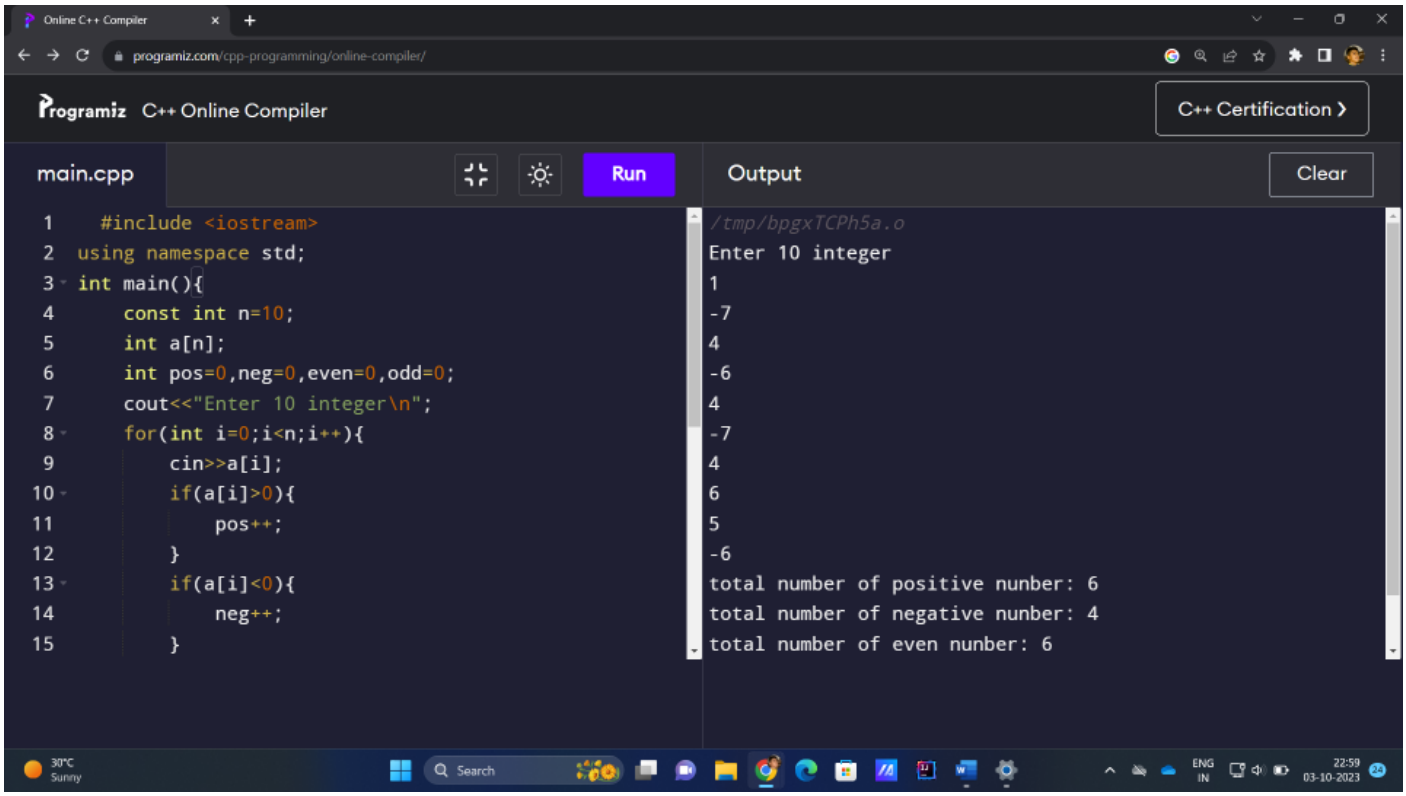
```cpp
#include<iostream>
using namespace std;
int sum(int a, int b){
    return a+b;
}
float sum(float a, float b){
    return a+b;
}
int main(){
    int num1 = 7;
    int num2 = 12;
    float num3 = 2.36;
    float num4 = 6.78;

    cout<<"Sum of integers: "<<sum(num1,num2)<<endl;
    cout<<"Sum of floats: "<<sum(num3,num4)<<endl;
}
```

Output

```
/tmp/v8LXNVKXbw.o
Sum of integers: 19
Sum of floats: 9.14
```

Ques6. Write a program to figure out number of positive, negative, odd and even numbers.



```
#include <iostream>
using namespace std;
int main(){
    const int n=10;
    int a[n];
    int pos=0,neg=0,even=0,odd=0;
    cout<<"Enter 10 integer\n";
    for(int i=0;i<n;i++){
        cin>>a[i];
        if(a[i]>0){
            pos++;
        }
        if(a[i]<0){
            neg++;
        }
        if(a[i]%2==0){
            even++;
        }
        else
        odd++;
    }
    cout<<"total number of positive nunber: "<<pos
        <<endl;
    cout<<"total number of negative nunber: "<<neg
        <<endl;
    cout<<"total number of even nunber: "<<even
        <<endl;
    cout<<"total number of odd nunber: "<<odd<<endl;

return 0;
```

```
/tmp/bpgxTCPh5a.o
Enter 10 integer
1
-7
4
-6
4
-7
4
6
5
-6
total number of positive nunber: 6
total number of negative nunber: 4
total number of even nunber: 6
```