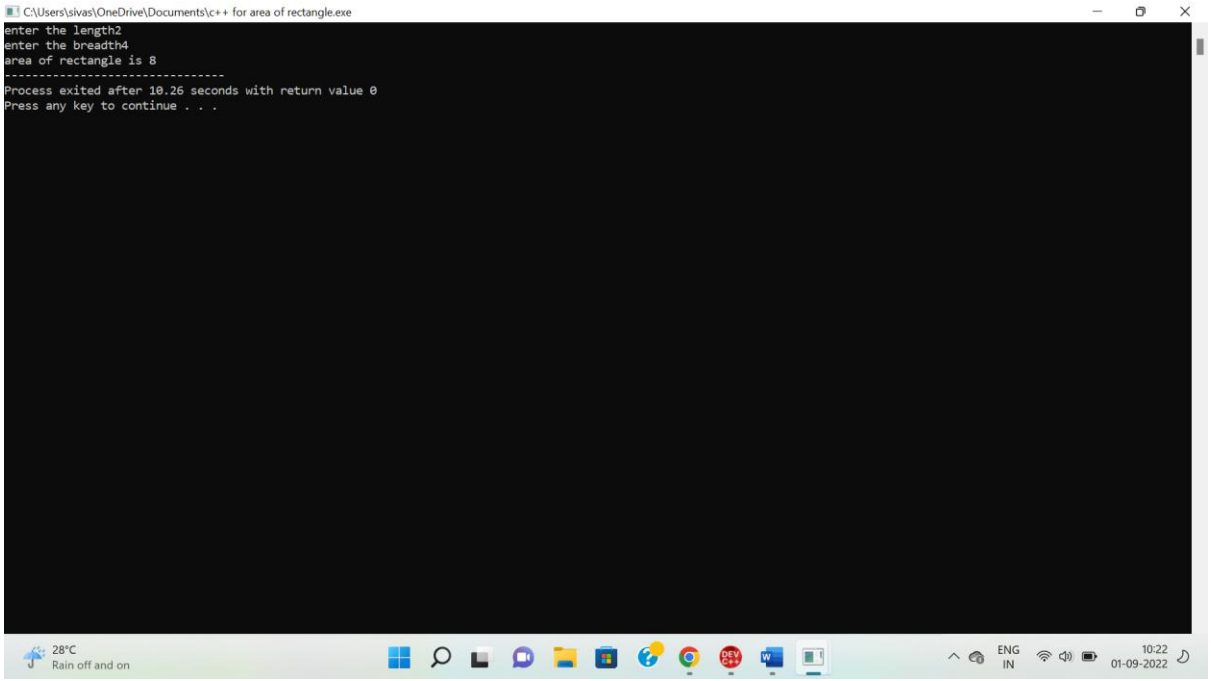
Program:1

```
#include<iostream>
#include<math.h>
using namespace std;
class rectangle
{
        private:
                int r;
        public:
                rectangle(int l,int b)
                {
                        r=l*b;
                }
                int display()
                {
                cout<<"area of rectangle is "<<r;
                return 0;
                }
};
int main()
{
        int l,b;
        cout<<"enter the length";
        cin>>l;
        cout<<"enter the breadth";
        cin>>b;
        rectangle r(l,b);
        r.display();
return 0;
}
```

Output:-

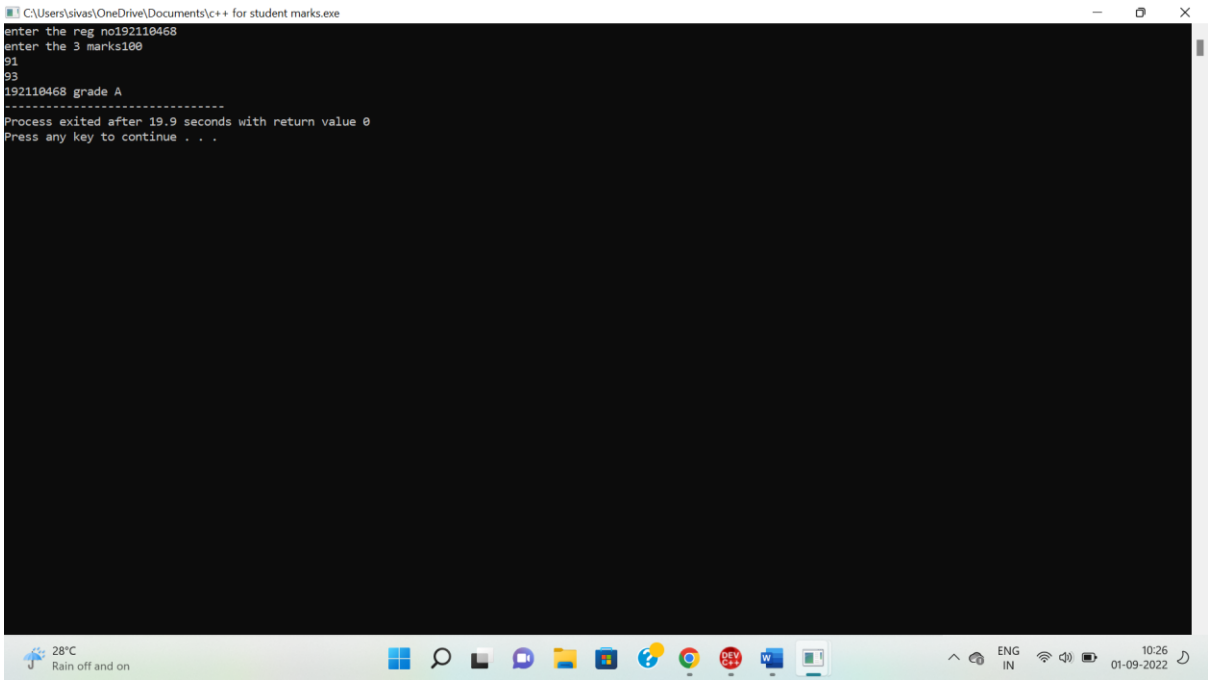


Program:2

```
#include<iostream>
using namespace std;
int main()
{
	int m1,m2,m3,total,avg,reg_no;
	cout<<"enter the reg no";
	cin>>reg_no;
	cout<<"enter the 3 marks";
	cin>>m1>>m2>>m3;
	total=m1+m2+m3;
	avg=total/3;
	if(int(m1)&&int(m2)&&int(m3)&&m1<=100&&m2<=100&&m3<=100)
	{
		if(avg>=90)
		{
			cout<<reg_no<<" grade A";
		}
```

```
        else if(avg>=80&&avg<=90)
        {
            cout<<reg_no<<" grade B";
        }
        else if(avg>=70&&avg<=80)
        {
            cout<<reg_no<<" grade C";
        }
        else if(avg>=60&&avg<=70)
        {
            cout<<reg_no<<" grade D";
        }
        else if(avg>=50&&avg<=60)
        {
            cout<<reg_no<<" grade E";
        }
        else
        {
            cout<<reg_no<<" fail";
        }
    }
    else
    {
        cout<<"enter the valid marks";
    }
    return 0;
}
```

Output:-


C:\Users\sivas\OneDrive\Documents\c++ for student marks.exe
enter the reg no192110468
enter the 3 marks100
91
93
192110468 grade A

Process exited after 19.9 seconds with return value 0
Press any key to continue . . .
28°C
Rain off and on
ENG
IN
10:26
01-09-2022