

(27-09-22) C++ program

OBJECT ORIENTED PROGRAMMING -C++:DSA0136

1. program for addition of two numbers using class

```
#include<iostream>
```

```
using namespace std;
```

```
class SUM
```

```
{
```

```
    int a,b,c;
```

```
    public:
```

```
        void getdata()
```

```
        {
```

```
            cout<<"enter two values:";
```

```
            cin>>a>>b;
```

```
        }
```

```
        void putdata()
```

```
        {
```

```
            cout<<"sum of two numbers:";
```

```
            c=a+b;
```

```
            cout<<c;
```

```
        }
```

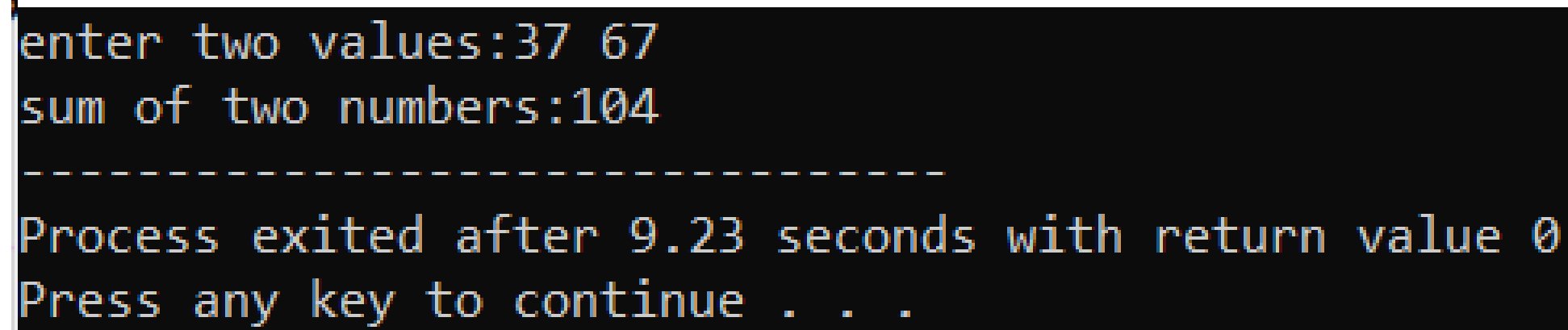
```
};
```

```
main()
```

```
{
```

```
        SUM s;  
        s.getdata();  
        s.putdata();  
    }
```

Output:

A screenshot of a terminal window with a black background and white text. The text shows the program's execution: it prompts for two values, receives '37 67', calculates the sum as '104', displays a dashed line, and then shows the process exit message.

```
enter two values:37 67  
sum of two numbers:104  
-----  
Process exited after 9.23 seconds with return value 0  
Press any key to continue . . .
```

2.program to find the biggest number using class and object

```
#include<iostream>  
  
using namespace std;  
  
class big  
{  
    int x,y,z;  
    public:  
        void getdata();  
};  
  
void big::getdata()  
{
```

```

cout<<"enter three values:";

cin>>x>>y>>z;

if(int(x)&&int(y)&&int(z))
{
    if(x>y&&x>z)

        cout<<x<<"is biggest";

    else if(y>z&&y>x)
        cout<<y<<"is biggest";

        else
            cout<<z<<"is greatest";
    }

    else
        cout<<"enter correct input";

}

main()
{
    Big b;

    b.getdata();

}

```

Output:

```
enter three values:45 67 12
67is biggest
-----
Process exited after 8.554 seconds with return value 0
Press any key to continue . . .
```

3.program for arithmetic operations using class

```
#include<iostream>

using namespace std;

class operation
{
    int a,b,choice,sum,sub,mul;
    float div;
public:
    void getdata()
    {
        cout<<"enter a and b values:";
        cin>>a>>b;
    }
    void putdata()
    {
```

```

        cout<<"enter choice:";

        cin>>choice;

        switch(choice)
        {

            case 1:

                cout<<"The Addition result is "<<a+b;

                break;

            case 2:

                cout<<"The subtraction is "<<a-b;

                break;

            case 3:

                cout<<"The multiplication is "<<a*b;

                break;

            case 4:

                cout<<"The division is "<<a/b;

                break;

            default:

                cout<<"enter correct choice";

                break;}

    }

};

main()

{operation o;

    o.getdata();

```

```
        o.putdata();  
    }  
}
```

Output:

```
enter two numbers45 78  
enter the choice1  
The Addition result is: 123  
-----  
Process exited after 7.737 seconds with return value 0  
Press any key to continue . . .
```

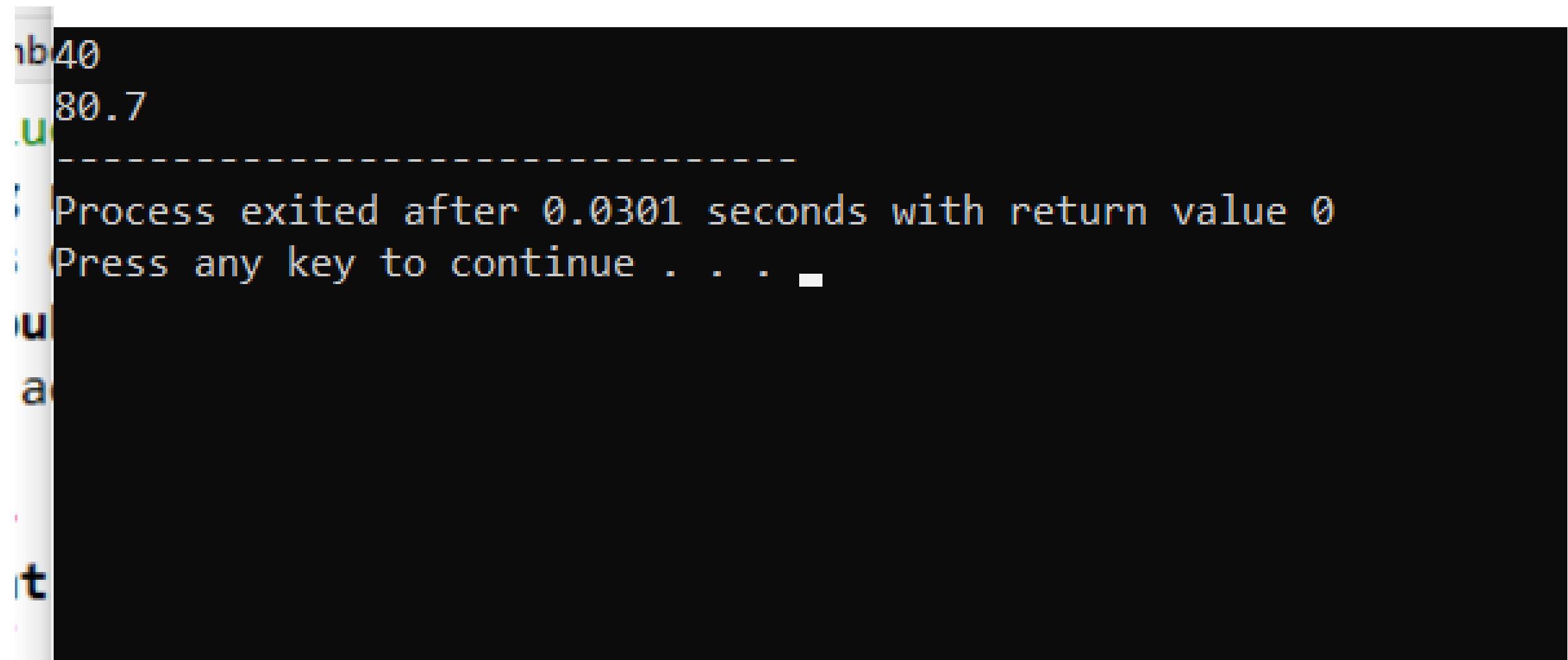
4.program about the function overloading with class

```
#include <iostream>  
  
using namespace std;  
  
class Cal {  
    public:  
    int add(int a,int b){  
        return a+b;  
    }  
    float add(int a,float b,float c)  
    {    return a+b+c;  
    }  
};  
  
int main(){  
    Cal C;
```

```
cout<<C.add(10,20)<<endl;
cout<<C.add(12,2.7,56.8);

return 0;
}
```

Output:

A screenshot of a terminal window with a black background and white text. The output shows the results of two function calls: '40' and '80.7'. A dashed line separates these from a message indicating the process has exited after 0.0301 seconds with a return value of 0, followed by a prompt to press any key to continue. The prompt is followed by a series of dots and a cursor. The terminal window has a vertical scrollbar on the left side.

```
40
80.7
-----
Process exited after 0.0301 seconds with return value 0
Press any key to continue . . .
```

5.program to find the student report

```
#include<iostream>

using namespace std;

main()
{
    int m1,m2,m3,avg,total;
    char name[20];
    cout<<"enter m1,m2,m3";
    cin>>m1>>m2>>m3;
    total=m1+m2+m3;
```

```

    cout<<"total = "<<total;

    avg=total/3;

    cout<<"average is = "<<avg;

    if(m1>=50&&m2>50&&m3>50)

    if(avg>=90)

    cout<<"A grade";

    else if(90>avg>80)

    cout<<"B grade";

    else if("70>avg>80")

    cout<<"C grade";

    else if(60>avg>70)

    cout<<" no grade";

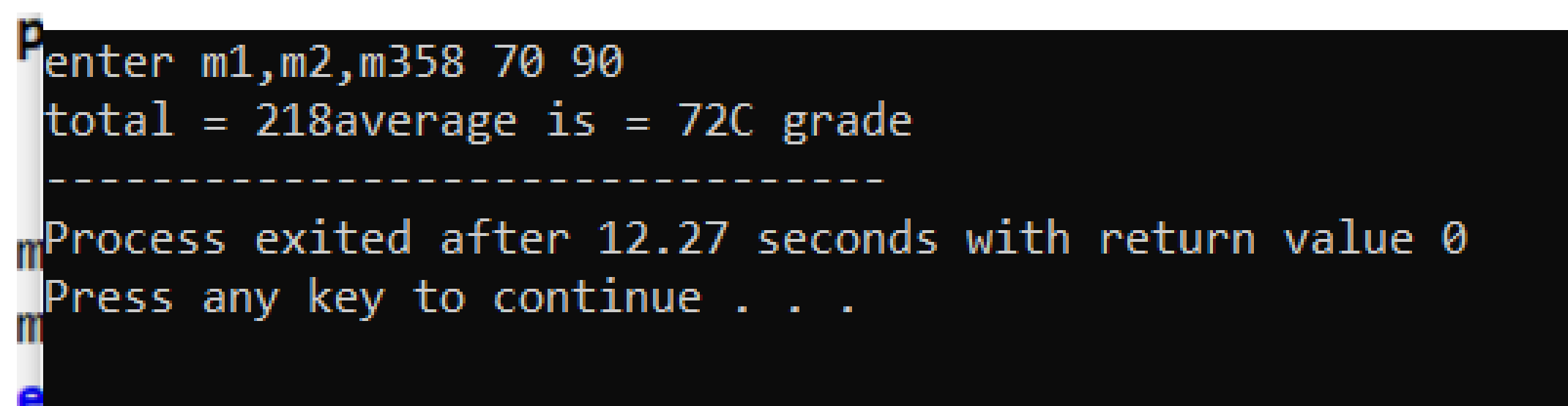
    else if(avg<50)

    cout<<"fail";

}

```

Output:



```

P enter m1,m2,m358 70 90
total = 218average is = 72C grade
-----
m Process exited after 12.27 seconds with return value 0
m Press any key to continue . . .
e

```

6.programforswappingof numbersusing call by value

```

#include<iostream>

using namespace std;

void change(int data);

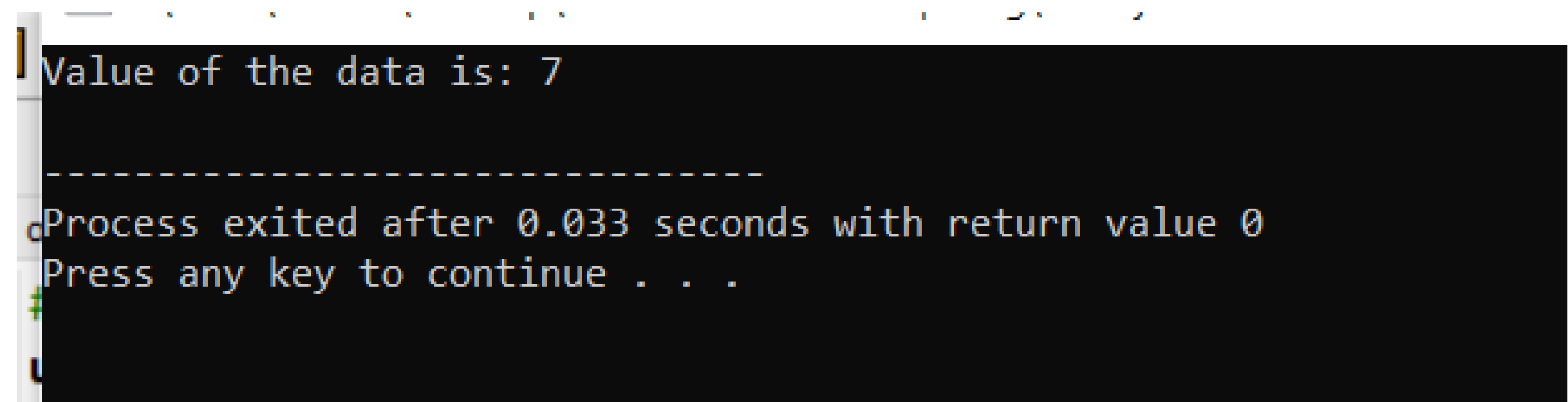
```



```
int main()
{
    int data = 7;
    change(data);
    cout << "Value of the data is: " << data << endl;
    return 0;
}

void change(int data)
{
    data = 17;
}
```

Output:

A screenshot of a terminal window with a black background and light blue text. The output shows the program's execution: it prints "Value of the data is: 7", followed by a dashed line separator, then "Process exited after 0.033 seconds with return value 0", and finally "Press any key to continue . . .". A green cursor is visible at the end of the last line.

```
Value of the data is: 7
-----
Process exited after 0.033 seconds with return value 0
Press any key to continue . . .
```