

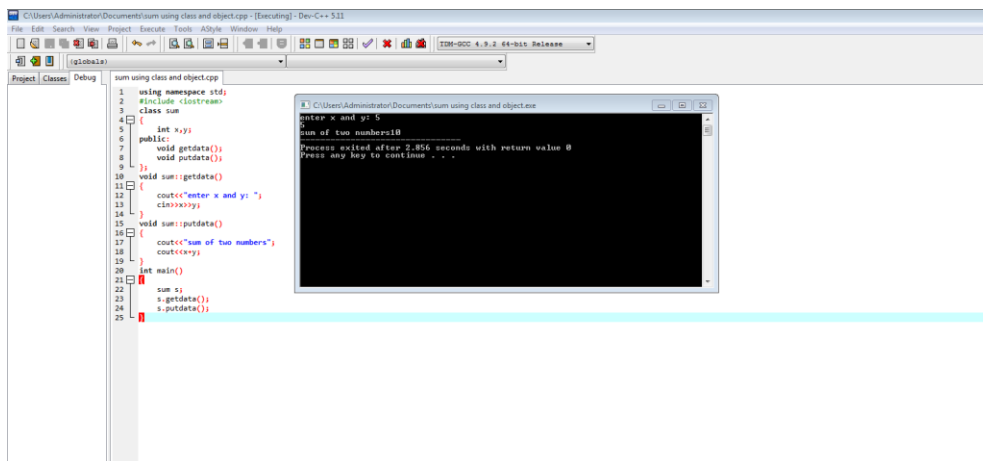
DSA0136-OBJECT ORIENTED PROGRAMMING WITH C++

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1.WRITE A C++ PROGRAM FOR SUM OF TWO NUMBERS USING CLASS AND OBJECT.USE GET DATA AND PUT DATA AS A MEMBER FUNCTION



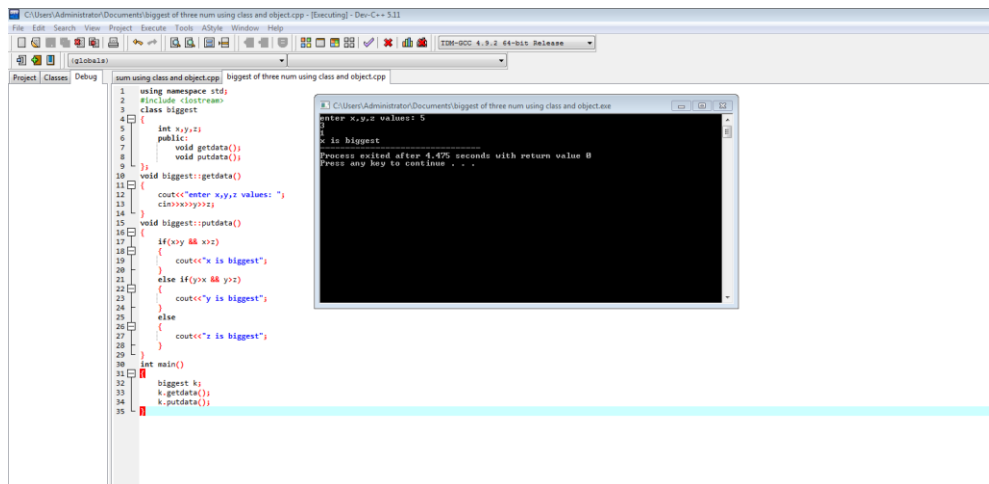
The screenshot displays the Dev-C++ IDE with a C++ program for summing two numbers using a class and object. The code is as follows:

```
1 using namespace std;
2 #include <iostream>
3 class sum
4 {
5     int x,y;
6 public:
7     void getdata();
8     void putdata();
9 };
10 void sum::getdata()
11 {
12     cout<<"enter x and y: ";
13     cin>>x>>y;
14 }
15 void sum::putdata()
16 {
17     cout<<"sum of two numbers";
18     cout<<x>>y;
19 }
20 int main()
21 {
22     sum s;
23     s.getdata();
24     s.putdata();
25 }
```

The execution output window shows the following text:

```
enter x and y: 5
5
sum of two numbers: 10
Process exited after 2.856 seconds with return value 0
Press any key to continue . . .
```

2. .WRITE A C++ PROGRAM FOR BIGGEST OF THREE NUMBERS USING CLASS AND OBJECT

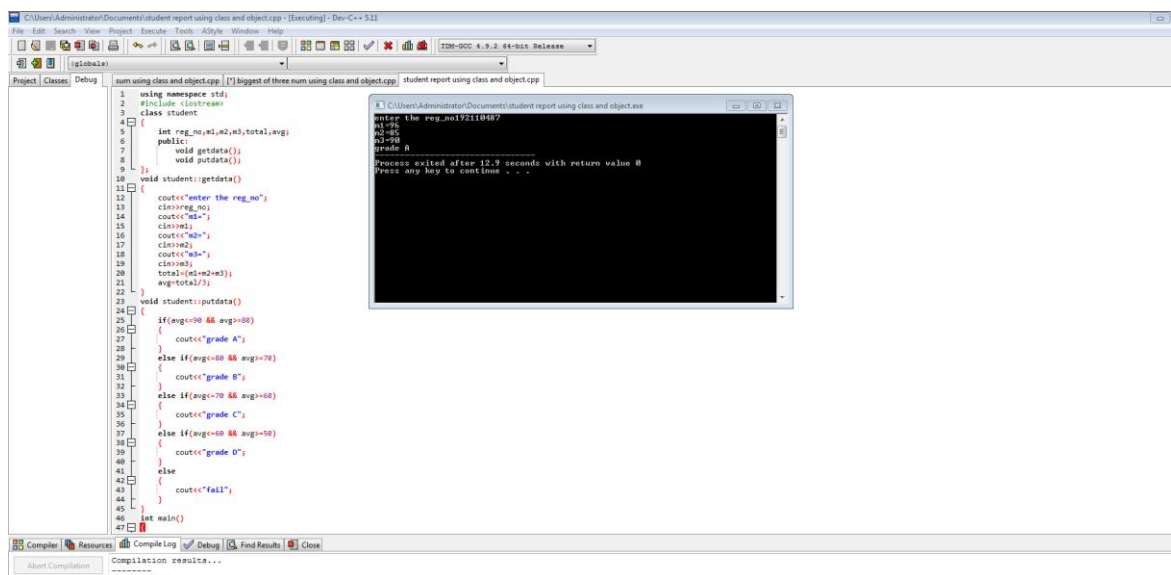


```
1 using namespace std;
2 #include <iostream>
3 class biggest
4 {
5     int x,y,z;
6     public:
7         void getdata();
8         void putdata();
9 };
10 void biggest::getdata()
11 {
12     cout<<"enter x,y,z values: ";
13     cin>>x>>y>>z;
14 }
15 void biggest::putdata()
16 {
17     if(x>y && x>z)
18     {
19         cout<<"x is biggest";
20     }
21     else if(y>x && y>z)
22     {
23         cout<<"y is biggest";
24     }
25     else
26     {
27         cout<<"z is biggest";
28     }
29 }
30 int main()
31 {
32     biggest k;
33     k.getdata();
34     k.putdata();
35 }
```

Output:

```
enter x,y,z values: 5
10
15
15 is biggest
Process exited after 4.475 seconds with return value 0
Press any key to continue . . .
```

3.WRITE A C++ PROGRAM FOR STUDENT REPORT

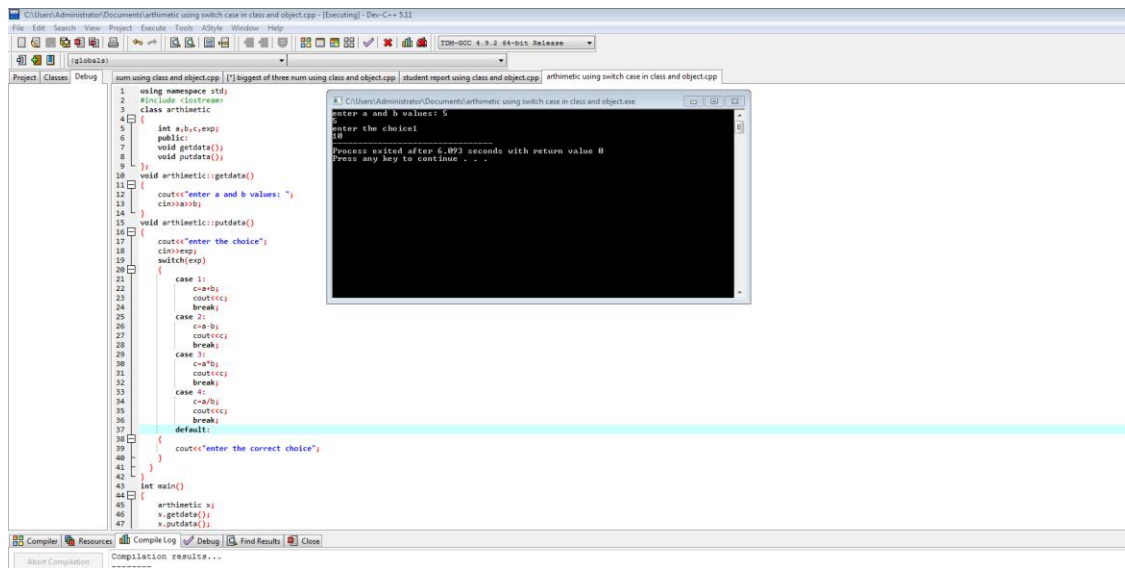


```
1 using namespace std;
2 #include <iostream>
3 class student
4 {
5     int reg_no,m1,m2,m3,total,avg;
6     public:
7         void getdata();
8         void putdata();
9 };
10 void student::getdata()
11 {
12     cout<<"enter the reg_no";
13     cin>>reg_no;
14     cout<<"m1=";
15     cin>>m1;
16     cout<<"m2=";
17     cin>>m2;
18     cout<<"m3=";
19     cin>>m3;
20     total=(m1+m2+m3);
21     avg=total/3;
22 }
23 void student::putdata()
24 {
25     if(avg>90 && avg>80)
26     {
27         cout<<"grade A";
28     }
29     else if(avg>80 && avg>70)
30     {
31         cout<<"grade B";
32     }
33     else if(avg>70 && avg>60)
34     {
35         cout<<"grade C";
36     }
37     else if(avg>60 && avg>50)
38     {
39         cout<<"grade D";
40     }
41     else
42     {
43         cout<<"fail";
44     }
45 }
46 int main()
47 {
48 }
```

Output:

```
enter the reg_no19210587
m1 95
m2 85
m3 90
grade A
Process exited after 12.9 seconds with return value 0
Press any key to continue . . .
```

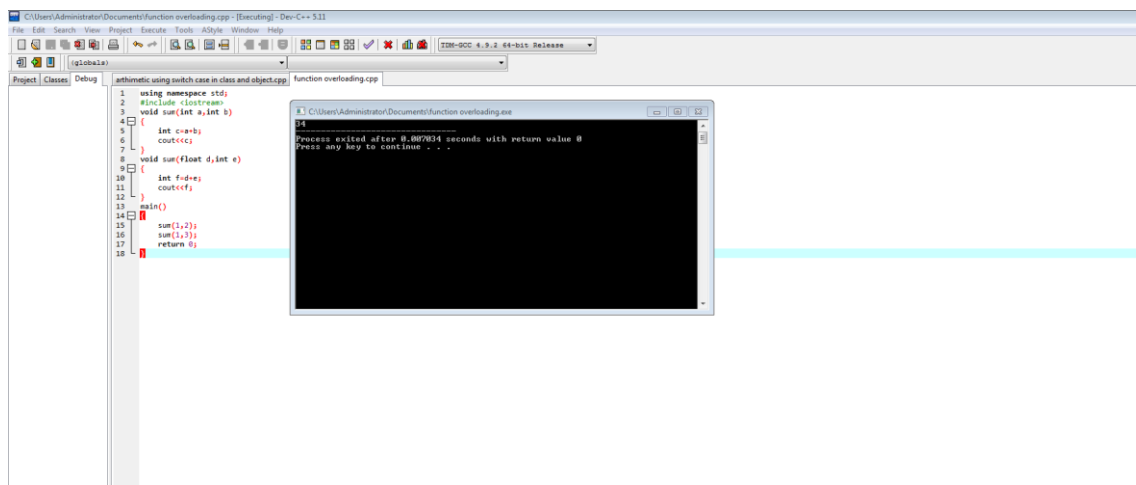
4. WRITE A C++ PROGRAM FOR ARITHMETIC OPERATION USING SWITCH CASE STATEMENT



```
1 using namespace std;
2 #include <iostream>
3 class arithmetic
4 {
5     int a,b,c,exp;
6     public:
7     void getData();
8     void putData();
9 };
10 void arithmetic::getData()
11 {
12     cout<<"enter a and b values: ";
13     cin>>a>>b;
14 }
15 void arithmetic::putData()
16 {
17     cout<<"enter the choice";
18     cin>>exp;
19     switch(exp)
20     {
21         case 1:
22             c=a+b;
23             cout<<c;
24             break;
25         case 2:
26             c=a-b;
27             cout<<c;
28             break;
29         case 3:
30             c=a*b;
31             cout<<c;
32             break;
33         case 4:
34             c=a/b;
35             cout<<c;
36             break;
37         default:
38             cout<<"enter the correct choice";
39     }
40 }
41
42
43 int main()
44 {
45     arithmetic x;
46     x.getData();
47     x.putData();
48 }
```

enter a and b values: 5
10
enter the choice: 1
15
Process exited after 6.093 seconds with return value 0
Press any key to continue . . .

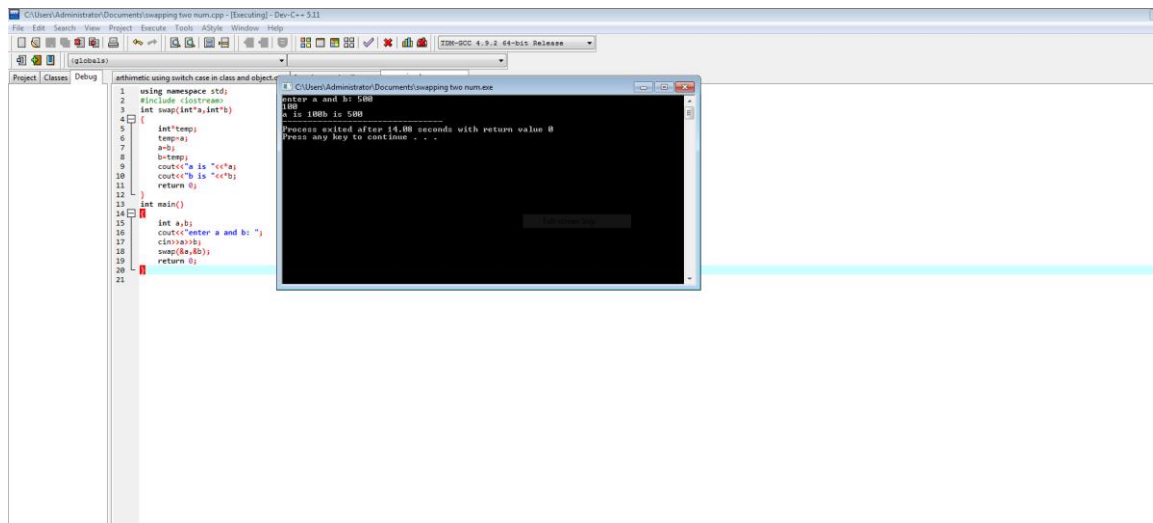
5. WRITE A C++ PROGRAM FOR FUNCTION OVERLOADING OF SUM



```
1 using namespace std;
2 #include <iostream>
3 void sum(int a,int b)
4 {
5     int c=a+b;
6     cout<<c;
7 }
8 void sum(float d,int e)
9 {
10     int f=d*e;
11     cout<<f;
12 }
13
14 int main()
15 {
16     sum(1,2);
17     sum(1,3);
18     return 0;
19 }
```

Process exited after 0.007034 seconds with return value 0
Press any key to continue . . .

6. WRITE A C++ PROGRAM FOR SWAPPING OF TWO NUMBERS USING CALL BY VALUE AND CALL BY REFERENCE



The image shows a screenshot of a C++ program in Dev-C++ IDE. The program is titled "C:\Users\Administrator\Documents\swapping two num.cpp - [Executing] - Dev-C++ 5.11". The code defines a swap function and a main function. The swap function takes two integers by reference and swaps their values. The main function prompts the user to enter two numbers, reads them, and calls the swap function. The output window shows the execution results.

```
1 using namespace std;
2 #include <iostream>
3 int swap(int&a,int&b)
4 {
5     int temp;
6     temp=a;
7     a=b;
8     b=temp;
9     cout<<"a is "<<"a;
10    cout<<"b is "<<"b;
11    return 0;
12 }
13
14 int main()
15 {
16     int a,b;
17     cout<<"enter a and b: ";
18     cin>>a>>b;
19     swap(a,b);
20     return 0;
21 }
```

Output:

```
enter a and b: 500
100
a is 100b is 500
Process exited after 14.08 seconds with return value 0
Press any key to continue . . .
```