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Array of Objects & Passing Objects as Function Arguments in C++

#### An array of Objects in C++

An array of objects is declared the same as any other data-type array.  An array of objects consists of class objects as its elements. If the array consists of class objects it is called an array of objects.

#include <iostream>

using namespace std;

class employee

{

    int id;

    int salary;

public:

    void setdata(void);

    void getdata(void);

};

void employee ::setdata(void)

{

    salary = 500;

    cout << "Enter your Employee Id: ";

    cin >> id;

}

void employee::getdata(void)

{

    cout << "Your Entered Id is: " << id << endl;

}

int main()

{

    employee e[3];

    for (int i = 0; i < 3; i++)

    {

        e[i].setdata();

        e[i].getdata();

    }

    return 0;

}

**Output:**

Enter your Employee Id: 23

Your Entered Id is: 23

Enter your Employee Id: 43

Your Entered Id is: 43

Enter your Employee Id: 55

Your Entered Id is: 55

#### Passing Object as Function Argument

Objects can be passed as function arguments. This is useful when we want to assign the values of a passed object to the current object. An example program to demonstrate the concept of passing an object as a function argument is shown below.

// #include <iostream>

// using namespace std;

// class employee

// {

//     int id;

//     int salary;

// public:

//     void setdata(void);

//     void getdata(void);

// };

// void employee ::setdata(void)

// {

//     salary = 500;

//     cout << "Enter your Employee Id: ";

//     cin >> id;

// }

// void employee::getdata(void)

// {

//     cout << "Your Entered Id is: " << id << endl;

// }

// int main()

// {

//     employee e[3];

//     for (int i = 0; i < 3; i++)

//     {

//         e[i].setdata();

//         e[i].getdata();

//     }

//     return 0;

// }

// program for complex number

#include <iostream>

using namespace std;

class complex

{

    int a;

    int b;

public:

    void setnum(int v1, int v2)

    {

        a = v1;

        b = v2;

    }

    void sum\_by(complex o1, complex o2)

    {

        a = o1.a + o2.a;

        b = o1.b + o2.b;

    }

    void getnum(void)

    {

        cout << "The Complex number is " << a << " + i" << b << endl;

    }

};

int main()

{

    complex c1, c2, c3;

    c1.setnum(2, 3);

    c1.getnum();

    c2.setnum(3, 2);

    c2.getnum();

    c3.sum\_by(c1, c2);

    c3.getnum();

    return 0;

}

**Output:-**

The Complex number is 2 + i3

The Complex number is 3 + i2

The Complex number is 5 + i5