

SINGLE INHERITENCE :-

```
#include <iostream>

using namespace std;

class Account {

    public:

    float salary = 60000;

};

class Programmer: public Account {

    public:

    float bonus = 5000;

};

int main(void) {

    Programmer p1;

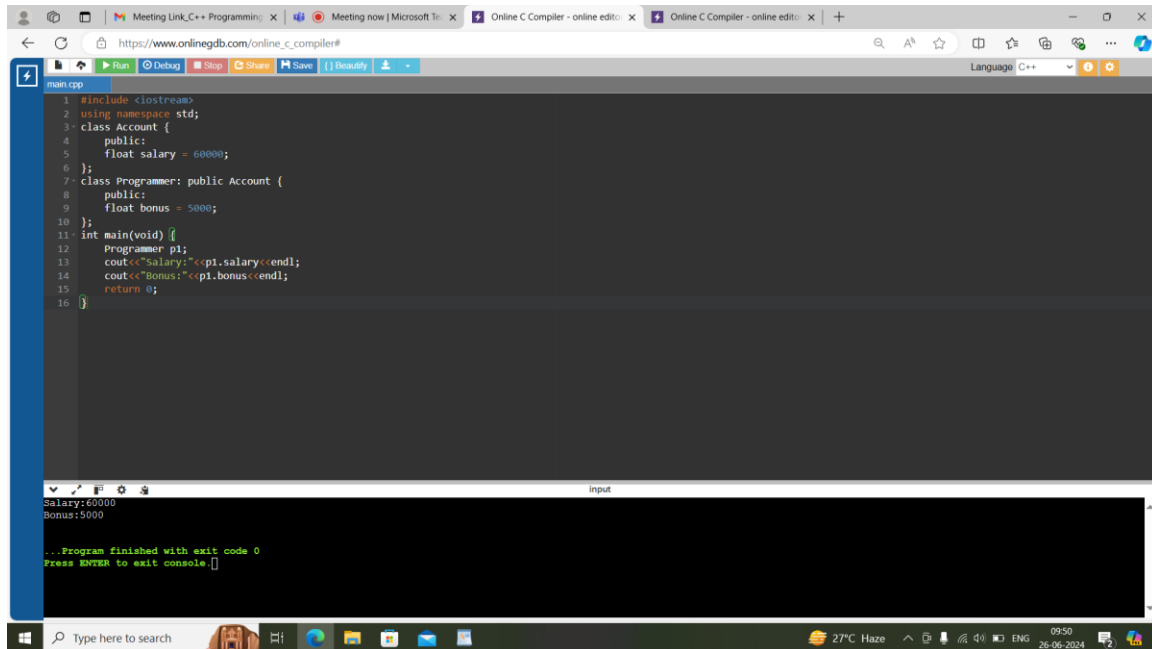
    cout<<"Salary:"<<p1.salary<<endl;

    cout<<"Bonus:"<<p1.bonus<<endl;

    return 0;

}
```

OUTPUT :-



The screenshot shows a web browser window with the URL https://www.onlinegdb.com/online_c_compiler#. The browser has several tabs open, including 'Meeting Link_C++ Programming', 'Meeting now | Microsoft 365', and two instances of 'Online C Compiler - online editor'. The main editor displays a C++ program with the following code:

```
1 #include <iostream>
2 using namespace std;
3 class Account {
4     public:
5     float salary = 60000;
6 };
7 class Programmer: public Account {
8     public:
9     float bonus = 5000;
10 };
11 int main(void) {
12     Programmer p1;
13     cout<<"Salary:"<<p1.salary<<endl;
14     cout<<"Bonus:"<<p1.bonus<<endl;
15     return 0;
16 }
```

The output window shows the following text:

```
Salary:60000
Bonus:5000

... Program finished with exit code 0
Press ENTER to exit console
```

The Windows taskbar at the bottom shows the system clock as 09:50 on 26-06-2024, with a weather widget indicating 27°C Haze.

MULTILEVEL INHERITANCE :-

```
#include <iostream>
```

```
using namespace std;
```

```
class Animal{
```

```
    public:
```

```
    void eat() {
```

```
        cout << "eating.." << endl;
```

```
    }
```

```
};
```

```
class Dog : public Animal {
```

```
    public:
```

```
    void bark() {
```

```
        cout<< "barking.." << endl;
```

```
    }
```

```
};
```

```
class BabyDog : public Dog{
```

```

public:

void weep() {

    cout<< "weeping.." <<endl;

}

};

int main(void) {

    BabyDog d1;

    d1.eat();

    d1.bark();

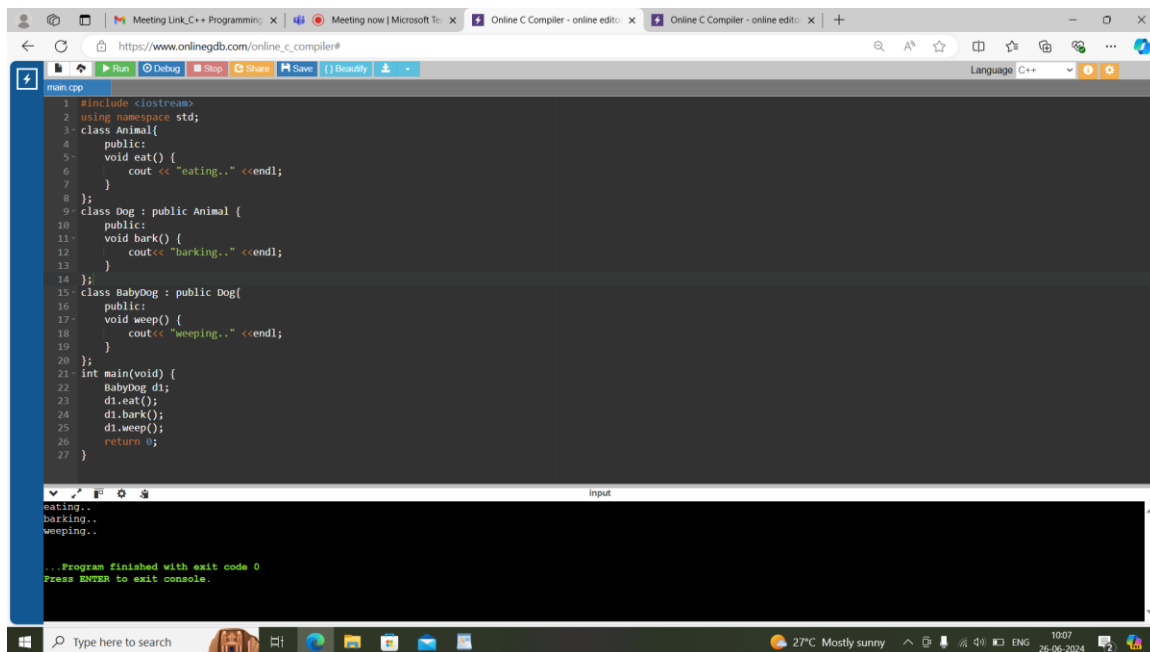
    d1.weep();

    return 0;

}

```

output :-



The screenshot shows a web browser window with the URL https://www.onlinegdb.com/online_c_compiler#. The code editor displays the following C++ code:

```

1 #include <iostream>
2 using namespace std;
3 class Animal{
4 public:
5     void eat() {
6         cout << "eating.." <<endl;
7     }
8 };
9 class Dog : public Animal {
10 public:
11     void bark() {
12         cout<< "barking.." <<endl;
13     }
14 };
15 class BabyDog : public Dog{
16 public:
17     void weep() {
18         cout<< "weeping.." <<endl;
19     }
20 };
21 int main(void) {
22     BabyDog d1;
23     d1.eat();
24     d1.bark();
25     d1.weep();
26     return 0;
27 }

```

The output window shows the following text:

```

eating..
barking..
weeping..

...Program finished with exit code 0
Press ENTER to exit console.

```

MULTIPLE INHERITANCE :-

```

#include <iostream>

using namespace std;

```

```
class A{
    protected:
        int a;
    public:
        void get_a(int n)
        {
            a = n;
        }
};

class B {
    protected:
        int b;
    public:
        void get_b(int n)
        {
            b = n;
        }
};

class C:public A, public B
{
    public:
        void display()
        {
            std::cout<<"The value of a is :"<<a<<std::endl;
            std::cout<<"The value of b is :"<<b<<std::endl;
            cout<<"Addition of a and b is :"<<a+b;
        }
};
```

```

int main()
{
    C c;

    c.get_a(10);

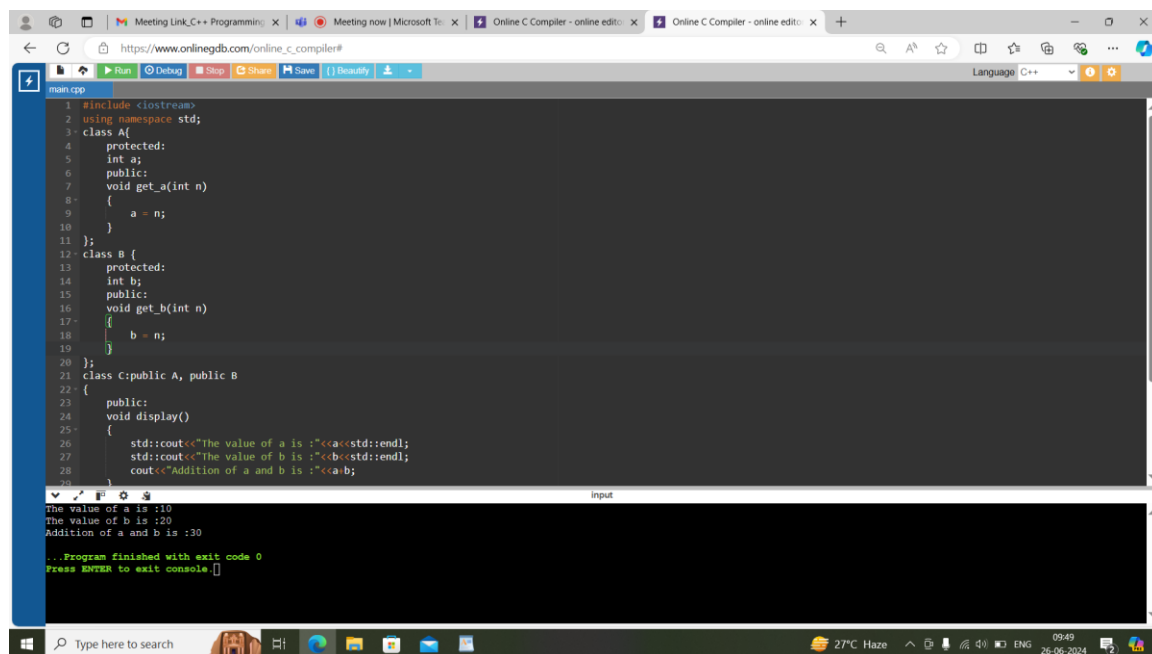
    c.get_b(20);

    c.display();

    return 0;
}

```

OUTPUT :-



The screenshot shows a web browser window with the URL https://www.onlinegdb.com/online_c_compiler#. The code editor contains the following C++ code:

```

1 #include <iostream>
2 using namespace std;
3 class A{
4     protected:
5         int a;
6     public:
7         void get_a(int n)
8         {
9             a = n;
10        }
11    };
12    class B {
13        protected:
14            int b;
15        public:
16            void get_b(int n)
17            {
18                b = n;
19            }
20    };
21    class C:public A, public B
22    {
23        public:
24            void display()
25            {
26                std::cout<<"The value of a is :"<<a<<std::endl;
27                std::cout<<"The value of b is :"<<b<<std::endl;
28                cout<<"Addition of a and b is :"<<a+b;
29            }
30    }

```

The output window shows the following text:

```

The value of a is :10
The value of b is :20
Addition of a and b is :30
...Program finished with exit code 0
Press ENTER to exit console

```

HYBRID INHERITANCE :-

```

#include <iostream>

using namespace std;

class vehicle
{

```

```
public:
vehicle()
{
cout<< "This is a vehicle\n";
}
};

class Car: public vehicle
{
public:
Car()
{
cout<< "This is a car\n";
}
};

class Racing
{
public:
Racing()
{
cout<< "This is for Racing\n";
}
};

class Ferrari: public Car, public Racing
{
public:
Ferrari()
{
cout<< "Ferrari is a Racing Car\n";
```

```

    }

};

int main() {

    Ferrari f;

    return 0;

}

```

OUTPUT :-

The screenshot shows a web browser window with the URL https://www.onlinegdb.com/online_c_compiler#. The code editor contains the following C++ code:

```

1 #include <iostream>
2 using namespace std;
3 class vehicle
4 {
5 public:
6     vehicle()
7     {
8         cout<< "This is a vehicle\n";
9     }
10 };
11 class Car: public vehicle
12 {
13 public:
14     Car()
15     {
16         cout<< "This is a car\n";
17     }
18 };
19 class Racing
20 {
21 public:
22     Racing()
23     {
24         cout<< "This is for Racing\n";
25     }
26 };
27 class Ferrari: public Car, public Racing
28 {
29 public:

```

The output window shows the following text:

```

This is a vehicle
This is a car
This is for Racing
Ferrari is a Racing Car

```

Below the output, it says: "...Program finished with exit code 0 Press ENTER to exit console."