

```
// C++ Program to demonstrate
// the Virtual Function

#include <iostream>

using namespace std;

// Declaring a Base class
class GFG_Base {

public:
    // virtual function
    virtual void display()
    {
        cout << "Called virtual Base Class function" <<
            "\n\n";
    }

    void print()
    {
        cout << "Called GFG_Base print function" <<
            "\n\n";
    }
};

// Declaring a Child Class
class GFG_Child : public GFG_Base {

public:
    void display()
    {
        cout << "Called GFG_Child Display Function" <<
            "\n\n";
    }
};
```

```

    }

    void print()
    {
        cout << "Called GFG_Child print Function" <<
            "\n\n";
    }
};

```

// Driver code

```

int main()
{
    // Create a reference of class bird
    GFG_Base* base;

    GFG_Child child;

    base = &child;

    // This will call the virtual function
    //base->GFG_Base::display();
    base->display();
    child.display();

    // this will call the non-virtual function
    base->print();
}

```

```

#include <iostream>

using namespace std;

class A {

```

```
public:
    void disp(){
        cout<<"Super Class Function"<<endl;
    }
```

```
};
```

```
class B: public A{
```

```
public:
```

```
    void disp(){
        cout<<"Sub Class Function";
    }
```

```
};
```

```
int main() {
```

```
    //Parent class object
```

```
    A obj;
```

```
    obj.disp();
```

```
    //Child class object
```

```
    B obj2;
```

```
    obj2.disp();
```

```
    return 0;
```

```
}
```

```
#include <iostream>
```

```
using namespace std;
```

```
class DemoClass {
```

```
public:
```

```
    int demoFunction(int i) {
```

```
        return i;
```

```
    }
```

```
    double demoFunction(double d) {
```

```
        return d;
```

```

    }
};

int main(void) {
    DemoClass obj;
    cout<<obj.demoFunction(100)<<endl;
    cout<<obj.demoFunction(5005.516);
    return 0;
}

```

```

#include <iostream>
using namespace std;
class BaseClass {
public:
    void disp(){
        cout<<"Function of Parent Class";
    }
};

class DerivedClass: public BaseClass{
public:
    void disp() {
        cout<<"Function of Child Class";
    }
};

int main() {

    DerivedClass obj;
    obj.disp();
    return 0;
}

```

```

#include <iostream>

using namespace std;

class BaseClass {
public:
    void disp(){
        cout<<"Function of Parent Class";
    }
};

class DerivedClass: public BaseClass{
public:
    void disp() {
        cout<<"Function of Child Class";
    }
};

int main() {

    BaseClass obj;

    obj.disp();

    return 0;
}

```

// C++ Program to demonstrate

// the Virtual Function

```

#include <iostream>

```

```

using namespace std;

```

// Declaring a Base class

```

class GFG_Base {

```

```

public:

```

```
// virtual function
virtual void display()
{
    cout << "Called virtual Base Class function" <<
        "\n\n";
}

void print()
{
    cout << "Called GFG_Base print function" <<
        "\n\n";
}
};
```

// Declaring a Child Class

```
class GFG_Child : public GFG_Base {

public:
    void display()
    {
        cout << "Called GFG_Child Display Function" <<
            "\n\n";
    }

    void print()
    {
        cout << "Called GFG_Child print Function" <<
            "\n\n";
    }
};
```

```
// Driver code
int main()
{
    // Create a reference of class bird
    GFG_Base* base;

    GFG_Child child;

    base = &child;

    // This will call the virtual function
    //base->GFG_Base::display();
base->display();
child.display();

    // this will call the non-virtual function
    base->print();
}
```