虚析构函数

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虚函数——特征：virtual

```
class A     //基类
{
public:
    virtual void f(){...}  //虚函数
};
class B:public A   //派生类
{
public:
  virtual void  f(){...}
};
```

```
int main   //主函数
{
   B x;
   A *p;
   p=&x;
   p->f();//访问派生类的f
   return 0;

}
```

实例

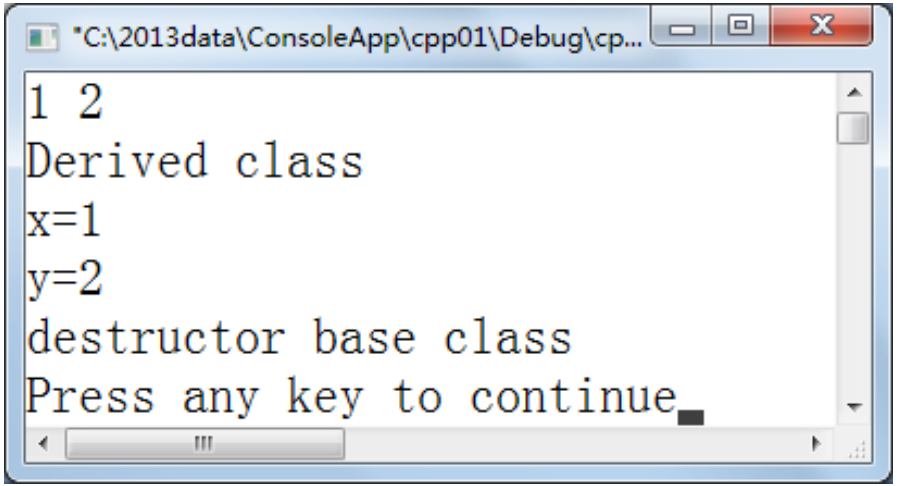
```
#include<iostream>
using namespace std;
class Base   //基类
{  public:
        int x;
        virtual  void f(){cout<<"base class\n";};
        virtual  void show(){cout<<"x="<<x<<endl;};
        ~Base(){cout<<"destructor base class\n";}
};
```

派生类

```
class Derived : public Base
{
public:
    int y;
    virtual void f(){
            cin>>y;
            cout<<"Derived class\n";
    }
    virtual void show(){Base::show ();cout<<"y="<<y<<endl;}
    ~Derived() { cout<<"destructor derived class\n";}
};
```

主函数

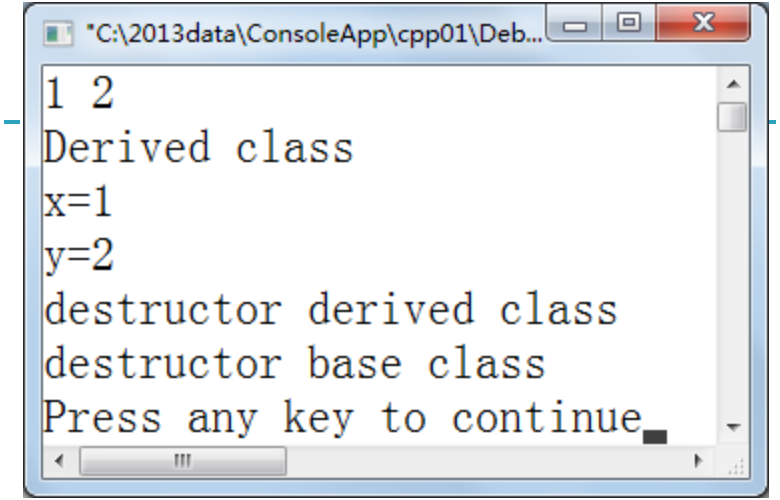
```
int main()
{
    Base *p;
    p=new Derived;
    cin>>p->x;
    p->f();
    p->show();
    delete p;
    return 0;
}
```



通过基类指针释放派生类对象空间
执行的是基类析构函数！！！

修改基类析构函数

```
#include<iostream>
using namespace std;
class Base   //基类
{  public:
        int x;
        virtual void f(){cout<<"base class\n";};
        virtual void show(){cout<<"x="<<x<<endl;};
        virtual ~Base(){cout<<"destructor base
  class\n";}
};
```



虚函数的声明位置

```
class Base
{
public:
   int x;
   virtual void f(){cout<<"base class\n";};
    void show();
   virtual ~Base(){cout<<"destructor base class\n"
};
virtual void Base::show(){cout<<"x="<<x<<endl;}
```

```
class Base
{
public:
   int x;
   virtual void f(){cout<<"base class\n";};
    virtual void show();
   virtual ~Base(){cout<<"destructor base class\n";}
};
 void Base::show(){cout<<"x="<<x<<endl;}
```