Задача 5. (10 точки) Дадена е следната програма, написана на C++. Разгледайте кода на програмата. След като отстраните грешките, намерете резултата от изпълнението й.

```cpp
#include <iostream>
#include <string>

using namespace std;

class Base
{   char *name;
  protected:
    Base(char *nn = "Base")
    { if (nn != NULL)
        { name = new char[16];
          strncpy(name, nn, 16);
        }
    }
  public:
    virtual void f1()
    { cout << name << ": f1 " << endl;
    }
    virtual ~Base()
    { delete [] name;
    }
  private:
    virtual void f2()
    { cout << name << ": f2 " << endl;
    }
  public:
    virtual void f3()
    { cout << name << ": f3 " << endl;
    }
};

class Der : public Base
{   char *name;
  public:
    Der(char *nn = "Der") : Base("Der.Base")
    { if (nn != NULL)
        { name = new char[16];
          strncpy(name, nn, 16);
        }
    }
    ~Der()
    { cout << name << ": destr" << endl;
      delete [] name;
    }
```

```cpp
  protected:
    void f1()
    { cout << name << ": f1" << endl;
    }
  public:
    void f2()
    { cout << name << ": f2" << endl;
    }
  private:
    void f3()
    { cout << name << ": f3" << endl;
    }
};

int main()
{ Base *p = new Der("Dyn");
  Der d("Stat");
  Base b;
  Base *q = &d;
  b.f1();
  p -> f1();
  d.f1();
  q -> f1();
  b.f2();
  p -> f2();
  d.f2();
  q -> f2();
  b.f3();
  p -> f3();
  d.f3();
  q -> f3();
  delete p;
  return 0;
}
```