

```

class Shape {
protected:
string name;
string color;
public:
Shape(string name,string color):name(name) ,color(color) {}
~Shape() {
    cout<<"Destroying "<<name<<"..."<<endl;
}
void displayInfo() {
    cout<<"Shape name: "<<name<<endl;
    cout<<"Shape color: "<<color<<endl;

}

};

class Circle: public Shape {
private:
double radius;
public:
Circle(string name,string color,double radius):Shape(name,color)
,radius(radius) {}
~Circle() {

}
void displayInfo() {
    Shape::displayInfo();
    cout<<"Circle radius: "<<radius<<endl;

}

```

```
};
```

```
class Rectangle: public Shape {  
private:  
double width;  
double height;  
public:  
Rectangle(string name,string color,double width,double  
height):Shape(name,color),width(width),height(height) {}  
~Rectangle() {  
  
}  
void displayInfo() {  
    Shape::displayInfo();  
    cout<<"Rectangle width: "<<width<<endl;  
    cout<<"Rectangle height: "<<height<<endl;  
  
}  
  
};
```

```
int main() {  
string name;  
string color;  
int radius;  
double width;  
double height;  
  
cout<<"Enter shape name: ";  
getline(cin,name);  
cout<<"Enter shape color: ";  
getline(cin,color);
```

```
Shape shape(name,color);
shape.displayInfo();
cout<<endl;

cout<<"Enter to circle radius: ";
cin>>radius;
Circle circle(name,color,radius);
circle.displayInfo();
cout<<endl;

cout<<"Enter to triangle width: ";
cin>>width;
cout<<"Enter to triangle height: ";
cin>>height;
Rectangle rectangle(name,color,width,height);
rectangle.displayInfo();
cout<<endl;

return 0;

}
```