

## Example of inheritance

```
class Rectangle
{
private:
    int length;
    int breadth;
public:
    Rectangle();
    Rectangle(int l,int b);
    Rectangle(Rectangle &r);
    int getLength(){return length;}
    int getBreadth(){return breadth;}
    void setLength(int l);
    void setBreadth(int b);
    int area();
    int perimeter();
    bool isSquare();
    ~Rectangle();
};

class Cuboid:public Rectangle
{
private:
    int height;
public:
    Cuboid(int h)
    {
        height=h;
    }
    int getHeight(){return height;}
    void setHeight(int h){height=h;}
    int volume(){return getLength()*getBreadth()*height;}
};

int main()
{
    Cuboid c(5);
    c.setLength(10);
    c.setBreadth(7);
    cout<<"Volume is "<<c.volume()<<endl;

}

Rectangle::Rectangle()
{
    length=1;
    breadth=1;
}

Rectangle::Rectangle(int l,int b)
{
    length=l;
    breadth=b;
}

Rectangle::Rectangle(Rectangle &r)
{
    length=r.length;
    breadth=r.breadth;
}

void Rectangle::setLength(int l)
{
    length=l;
}

void Rectangle::setBreadth(int b)
{
    breadth=b;
}
```

```
}  
int Rectangle::area()  
{  
    return length*breadth;  
}  
int Rectangle::perimeter()  
{  
    return 2*(length+breadth);  
}  
bool Rectangle::isSquare()  
{  
    return length==breadth;  
}  
Rectangle::~~Rectangle()  
{  
    // cout<<"Rectangle Destroyed";  
}
```