

class IReservoir

```
{  
    virtual double getVolume() = 0;  
    virtual double getArea() = 0;  
};
```

class Reservoir: public IReservoir

```
{  
    private:  
        double thickness;  
    protected:  
        char type; // 's' - steel, 'a' - aluminium, etc.  
    public:  
        Reservoir();  
        double getThickness();  
        void setThickness(double thickness);  
        double getWeight(); // area * thickness * density + volume * density(vine)  
        virtual double getVolume();  
        virtual double getArea();  
};
```

class CylinderReservoir: public Reservoir

```
{  
    private:  
        double radius;  
        double height;  
    public:  
        CylinderReservoir(double height, double radius);  
        double getRadius();  
        double getHeight();  
        virtual double getVolume();  
        virtual double getArea();  
};
```

class ParallelepipedReservoir: public Reservoir

```
{  
    private:  
        double height;  
        double length;  
        double width;  
    public:  
        ParallelepipedReservoir(double height, double length, double width);  
        double getHeight();  
        double getLength();  
        double getWidth();  
        virtual double getVolume();  
        virtual double getArea();  
};
```

```
class CubeReservoir:public ParallelepipedReservoir  
{  
    private:  
        double theSize;  
    public:  
        CubeReservoir(double oneSize);  
        double getSize();  
};
```

```
class SphereReservoir: public Reservoir  
{  
    private:  
        double radius;  
  
    private:  
        double getRadius();  
    public:  
        SphereReservoir(double radius);  
        virtual double getVolume();  
        virtual double getArea();  
};
```