

```

class Dillo {
    int length ;
    boolean isDead ;

    Dillo (int length, boolean isDead) {
        this.length = length ;
        this.isDead = isDead ;
    }

    // determines whether Dillo is dead and longer than 60
    boolean canShelter() {
        return (this.isDead && this.length > 60);
    }

    // determine whether Dillo length less than given one
    public boolean lengthBelow(int someLength) {
        return this.length < someLength;
    }
}

```

```

class Boa implements IAnimal {
    String name ;
    int length ;
    String eats ;

    Boa (String name, int length, String eats) {
        this.name = name ;
        this.length = length ;
        this.eats = eats ;
    }

    // determine whether Boa length less than given one
    public boolean lengthBelow(int someLength) {
        return this.length < someLength;
    }
}

```

says Boa is a valid animal

method required by interface must be public

```

class Cage {
    int size; // length of cage in inches
    IAnimal resident; // any animal can live in cage

    Cage(int size, IAnimal resident) {
        this.size = size;
        this.resident = resident;
    }

    // determine whether animal will fit in this cage
    boolean checkResidentFits() {
        return resident.lengthBelow(this.size);
    }
}

```

Want to allow either Boa or Dillo in a cage.

Java needs to be sure that every resident (an IAnimal) has a lengthBelow method. Listing the method in the interface does that

```

interface IAnimal {

```

```

    public boolean lengthBelow (int someLength);
}

```

header of method that every IAnimal will have

(interface is not in a class - it's its own thing, can be in own file)