

# Animal Object

This is the easiest assignment ever. Be ready.

On sheet 4.5, you were given the code for Animal and its button code.



1. Change the XML to have a multi-line text area.
2. Inside the project, make **another new class**: Animal. Paste in the Animal. Do not delete the package line. Save.
3. Add the code for the button. Verify that it works.

XML:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_gravity="center_horizontal"
    android:orientation="vertical">

    <TextView
        android:id="@+id/TextArea"
        android:padding="10dp"
        android:textSize="30dp"
        android:layout_margin="20dp"
        android:layout_width="350dp"
        android:layout_height="wrap_content"
        android:background="#d3d7b6"
        android:inputType="textMultiLine"
        android:maxLines="10"
        android:minLines="10"
        android:scrollbars="vertical" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:onClick="show"
        android:textSize="30dp"
        android:id="@+id/show"
        android:text="show" />

</LinearLayout>
```

The new Animal Class:

**THIS IS NOT IN THE MainActivity. IT is a NEW Java file.**

**Don't delete the package! Leave yours alone!**

```
package ca.gorskicompsci.www.objectsampler;
```

```
public class Animal {

    private String noise;
    private String type;
```

```

public Animal () {
    noise = "meow";
    type = "cat";
}

public Animal (String a, String s) {
    noise = s;
    type = a;
}

public String toString () {
    return "the " + type + " says " + noise;
}

public String getSound () {
    return noise;
}

public String getAnimal () {
    return type;
}

public void setSound (String s) {
    noise = s;
}

public void setAnimal (String a) {
    type = a;
}

public boolean equals (Animal two) {
    if (two.getAnimal ().equals (type) && two.getSound ().equals (noise))
        return true;
    else
        return false;
}

public int compareTo (Animal two) {
    if (two.equals (this))
        return 0;
    else if (two.getAnimal ().compareTo (type) >= 0)
        return 1;
    else
        return -1;
}
}

```

The show button:

Add to the MainActivity

```

public void show(View view) {
    TextView textArea = (TextView) findViewById(R.id.TextArea);
    Animal spot = new Animal ();
    textArea.append(""+spot.toString ());
    Animal fluffy = new Animal ("dog", "bark");
    textArea.append("\n"+fluffy.toString ());
    textArea.append("\n"+fluffy.getSound ());
    fluffy.setSound ("woof");
    textArea.append("\n"+fluffy.toString ());
    textArea.append("\n"+spot.compareTo (fluffy));
    textArea.append("\n"+spot.equals (fluffy));
}

```