Linear Layout

`LinearLayout` is a `ViewGroup` that displays child `View` elements in a linear direction, either vertically or horizontally.

You should be careful about over-using the `LinearLayout`. If you begin nesting multiple `LinearLayout`s, you may want to consider using a `RelativeLayout` instead.

1. Start a new project named *HelloLinearLayout*.
2. Open the `res/layout/main.xml` file and insert the following:

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

  <LinearLayout
      android:orientation="horizontal"
      android:layout_width="fill_parent"
      android:layout_height="fill_parent"
      android:layout_weight="1">
      <TextView
          android:text="red"
          android:gravity="center_horizontal"
          android:background="#aa0000"
          android:layout_width="wrap_content"
          android:layout_height="fill_parent"
          android:layout_weight="1"/>
      <TextView
          android:text="green"
          android:gravity="center_horizontal"
          android:background="#00aa00"
          android:layout_width="wrap_content"
          android:layout_height="fill_parent"
          android:layout_weight="1"/>
      <TextView
          android:text="blue"
          android:gravity="center_horizontal"
          android:background="#0000aa"
          android:layout_width="wrap_content"
          android:layout_height="fill_parent"
          android:layout_weight="1"/>
      <TextView
          android:text="yellow"
          android:gravity="center_horizontal"
          android:background="#aaaa00"
          android:layout_width="wrap_content"
          android:layout_height="fill_parent"
          android:layout_weight="1"/>
  </LinearLayout>

  <LinearLayout
    android:orientation="vertical"
```

```
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:layout_weight="1">
    <TextView
        android:text="row one"
        android:textSize="15pt"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"/>
    <TextView
        android:text="row two"
        android:textSize="15pt"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"/>
    <TextView
        android:text="row three"
        android:textSize="15pt"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"/>
    <TextView
        android:text="row four"
        android:textSize="15pt"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"/>
  </LinearLayout>

</LinearLayout>
```

Carefully inspect this XML. There is a root `LinearLayout` that defines its orientation to be vertical—all child `View`s (of which it has two) will be stacked vertically. The first child is another `LinearLayout` that uses a horizontal orientation and the second child is a `LinearLayout` that uses a vertical orientation. Each of these nested `LinearLayout`s contain several `TextView` elements, which are oriented with each other in the manner defined by their parent `LinearLayout`.

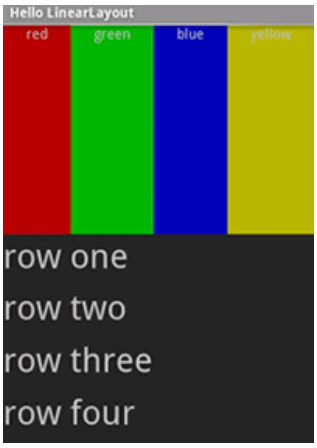
3. Now open `HelloLinearLayout.java` and be sure it loads the `res/layout/main.xml` layout in the `onCreate()` method:

```
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main);
}
```

The `setContentView(int)` method loads the layout file for the `Activity`, specified by the resource ID — `R.layout.main` refers to the `res/layout/main.xml` layout file.

4. Run the application.

You should see the following:



Notice how the XML attributes define each View's behavior. Try experimenting with different values for `android:layout_weight` to see how the screen real estate is distributed based on the weight of each element. See the Common Layout Objects document for more about how `LinearLayout` handles the `android:layout_weight` attribute.

References

- `LinearLayout`
- `TextView`

← Back to Hello, Views

↑ Go to top