Android fundamentals 01.2 Part B: The layout editor

appears underneath the element.

• The pack button in the toolbar provides options for packing or expanding selected UI elements. You can use it to equally arrange the Button elements horizontally across the layout.

Using LinearLayout:

- <u>LinearLayout</u> is a <u>ViewGroup</u> that arranges its collection of views in a horizontal or vertical row.
- A LinearLayout is required to have the layout_width, layout_height, and orientation attributes.
- match_parent for layout_width or layout_height: Expands the View to fill its parent by width or height. When the LinearLayout is the root View, it expands to the size of the screen (the parent View).
- Wrap_content for layout_width or layout_height: Shrinks the dimensions so the View is just big enough to enclose its content. If there is no content, the View becomes invisible.
- Fixed number of dp (<u>density-independent pixels</u>) for layout_width or layout_height: Specify a fixed size,
 adjusted for the screen density of the device. For example, 16dp means 16 density-independent pixels.
- The orientation for a LinearLayout can be horizontal to arrange elements from left to right, or vertical to arrange elements from top to bottom.
- Specifying gravity and weight attributes gives you additional control over arranging views and content in a LinearLayout.
- The android:gravity attribute specifies the alignment of the content of a View within the View itself.
- The android:layout_weight attribute indicates how much of the extra space in the LinearLayout will be allocated to the View. If only one View has this attribute, it gets all the extra screen space. For multiple View elements, the space is prorated. For example, if two Button elements each have a weight of 1 and a TextView 2, totaling 4, the Button elements get ¼ of the space each, and the TextView half.

Using RelativeLayout:

- A <u>RelativeLayout</u> is a ViewGroup in which each view is positioned and aligned relative to other views within the group.
- Use android:layout_alignParentTop to align the View to the top of the parent.
- Use android:layout_alignParentLeft to align the View to the left side of the parent.
- Use android:layout_alignParentStart to make the start edge of the View match the start edge of the parent. This attribute is useful if you want your app to work on devices that use different language or locale preferences. The *start* is the left edge of the screen if the preference is left-to-right, or it is the right edge of the screen if the preference is right-to-left.