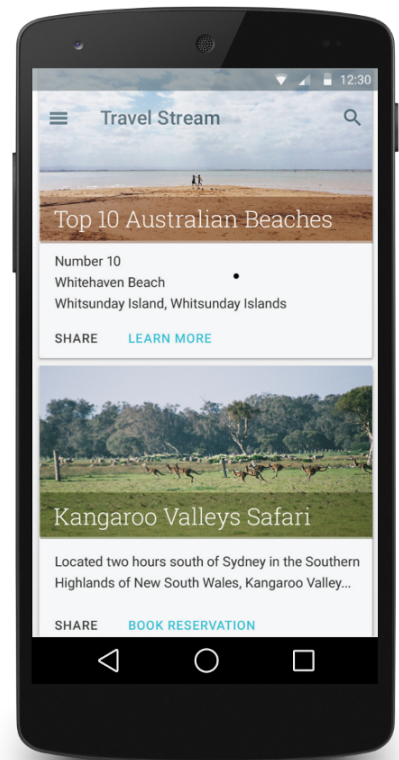# Create a Card-Based Layout

Apps often need to display data in similarly styled containers. These containers are often used in lists to hold each item's information. The system provides the `CardView` (https://developer.android.com/reference/android/support/v7/widget/CardView.html) API as an easy way for you show information inside cards that have a consistent look across the platform. These cards have a default elevation above their containing view group, so the system draws shadows below them. Cards provide an easy way to contain a group of views while providing a consistent style for the container.

Add the dependencies

The `CardView`

Figure 1. Card examples

(https://developer.android.com/reference/android/support/v7/widget/CardView.html) widget is part of the <u>v7 Support Libraries</u> (https://developer.android.com/tools/support-library/features.html#v7). To use it in your project, add the following dependency to your app module's `build.gradle` file:

```
dependencies {
    implementation 'com.android.support:cardview-v7:27.1.1'
}
```

Create Cards

In order to use the <u>CardView</u>
(https://developer.android.com/reference/android/support/v7/widget/CardView.html) you need to
add it to your layout file. Use it as a view group to contain other views. In this example, the
<u>CardView</u> (https://developer.android.com/reference/android/support/v7/widget/CardView.html)
contains a single <u>TextView</u>
(https://developer.android.com/reference/android/widget/TextView.html) to display some
information to the user.

```xml
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:card_view="http://schemas.android.com/apk/res-auto"
    ... >
    <!-- A CardView that contains a TextView -->
    <android.support.v7.widget.CardView
        xmlns:card_view="http://schemas.android.com/apk/res-auto"
        android:id="@+id/card_view"
        android:layout_gravity="center"
        android:layout_width="200dp"
        android:layout_height="200dp"
        card_view:cardCornerRadius="4dp">

        <TextView
            android:id="@+id/info_text"
            android:layout_width="match_parent"
            android:layout_height="match_parent" />
    </android.support.v7.widget.CardView>
</LinearLayout>
```

The cards are drawn to the screen with a default elevation, which causes the system to
draw a shadow underneath them. You can provide a custom elevation for a card with the
`card_view:cardElevation` attribute. This will draw a more pronounced shadow with a
larger elevation, and a lower elevation will result in a lighter shadow. <u>CardView</u>
(https://developer.android.com/reference/android/support/v7/widget/CardView.html) uses real
elevation and dynamic shadows on Android 5.0 (API level 21) and above and falls back to a
programmatic shadow implementation on earlier versions.

Use these properties to customize the appearance of the <u>CardView</u>
(https://developer.android.com/reference/android/support/v7/widget/CardView.html) widget:

- To set the corner radius in your layouts, use the `card_view:cardCornerRadius`
  attribute.

- To set the corner radius in your code, use the `CardView.setRadius` method.

- To set the background color of a card, use the `card_view:cardBackgroundColor` attribute.

For more information, see the API reference for <u>**CardView**</u>
 (https://developer.android.com/reference/android/support/v7/widget/CardView.html).

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