Working with a List

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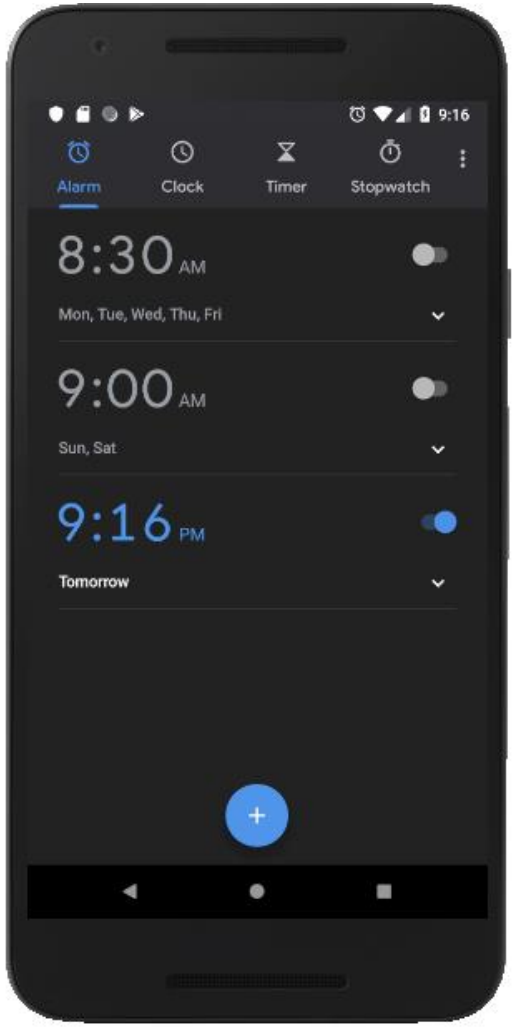
Overview

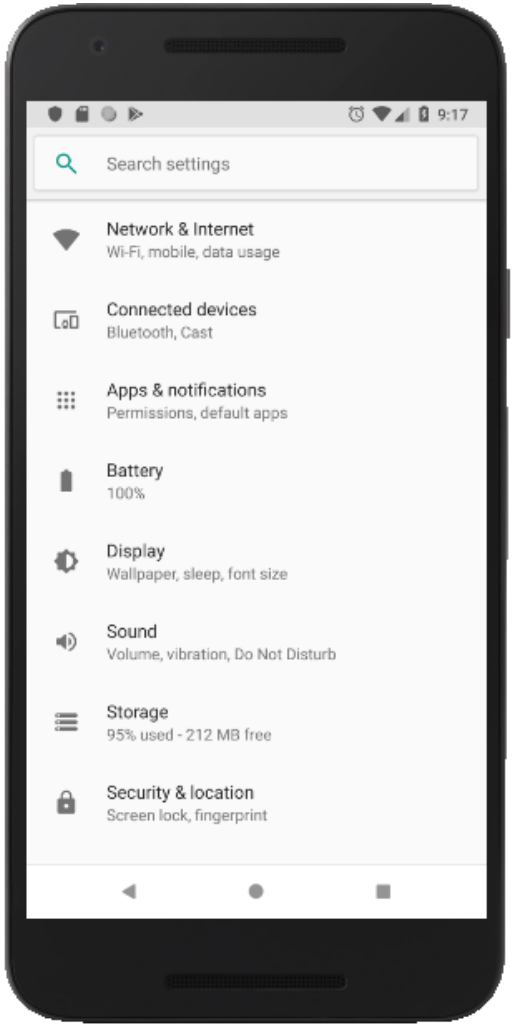
Exploring the list controls

Understanding the RecyclerView

Exploring the List Controls

Lists Are Everywhere





List Controls in Xamarin.Android

ListView

RecyclerView

The RecyclerView

Advantages

ViewHolder

Different types of layouts

Animations

Memory and performance

Disadvantages

More complex

More code required than ListView

Understanding the RecyclerView

Parts of the RecyclerView

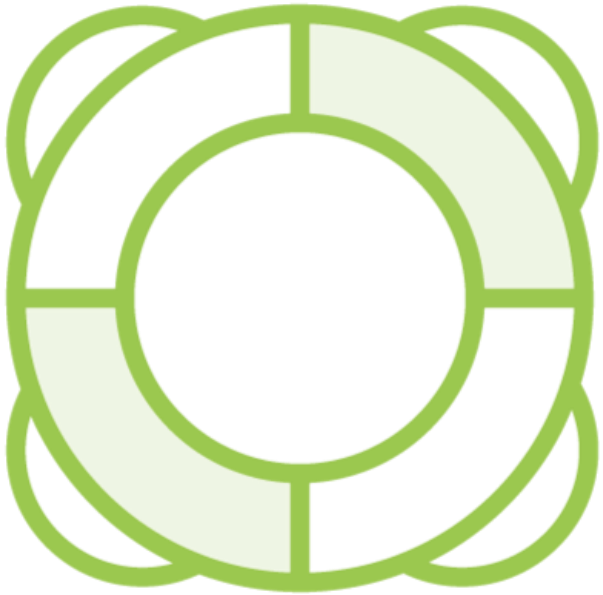
Adapter

LayoutManager

ViewHolder

Adding a RecyclerView

```
<LinearLayout>
    <android.support.v7.widget.RecyclerView
        android:id="@+id/recyclerView"
        android:scrollbars="vertical"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent" />
</LinearLayout>
```

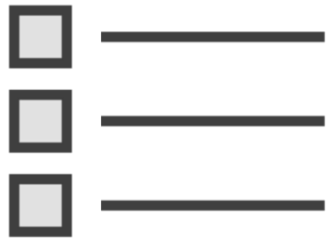


Support libraries

- Bring features into Android
- Add extra classes
- RecyclerView is also available as part of support library

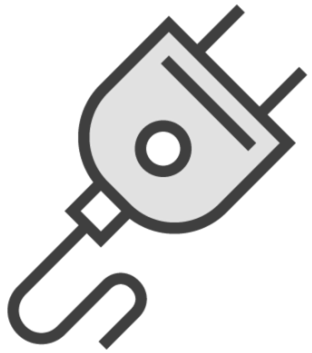
Understanding the Adapter

ViewHolder



RecyclerView

LayoutManager



Adapter

Data (code)

```
public class ShoppingCartAdapter: RecyclerView.Adapter
{

  public ShoppingCartAdapter()
  {
    _shoppingCartRepository = new ShoppingCartRepository();
  }
}
```

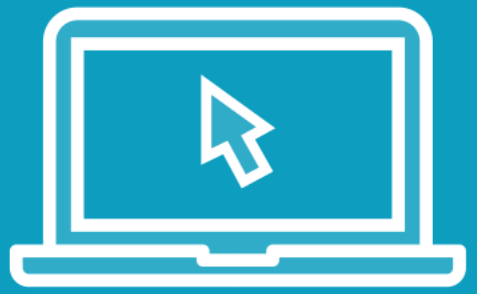
Creating the Adapter

```
public class CartViewHolder: RecyclerView.ViewHolder
{
  public ImageView PieImageView { get; set; }

  ...
}
```

Creating the ViewHolder

Demo



Adding a RecyclerView

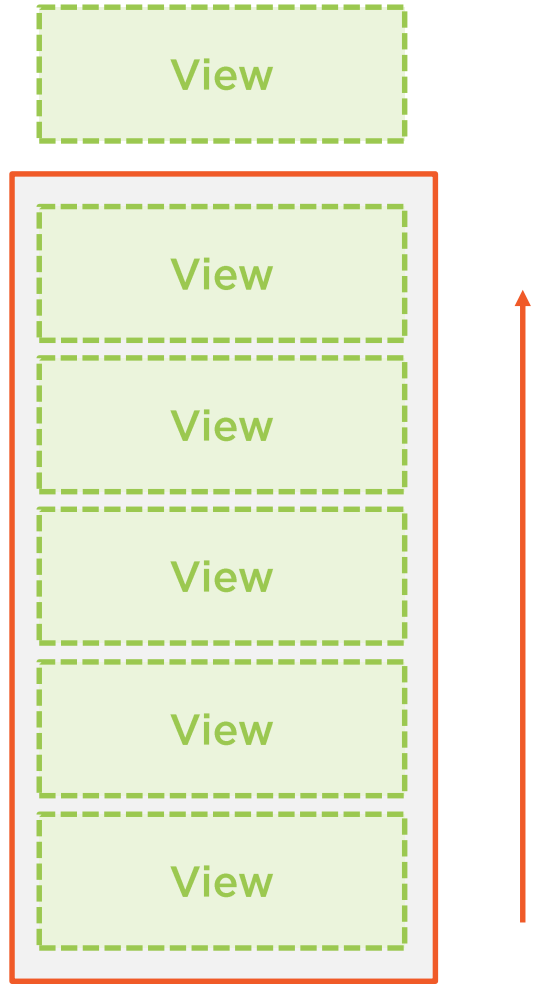
Creating the adapter

Adding a ViewHolder

Linking everything together

View Recycling

Recycle views



Old data

Using a Different LayoutManager

LinearLayoutManger

GridLayoutManager

Staggered
GridLayoutManager

Demo

Using a different LayoutManager

Interacting with the RecyclerView

```
public class CartViewHolder: RecyclerView.ViewHolder
{

  public CartViewHolder
  (View itemView, Action<int> listener) : base(itemView)
  {

    itemView.Click +=
      (sender, e) =>listener(base.LayoutPosition);

  }

}
```

Demo

Adding tap support to the RecyclerView

Summary

RecyclerView is the way forward for lists in Android

Flexible control

Keeps memory use low

Up next:
Adding navigation