Binding Data to RecyclerView

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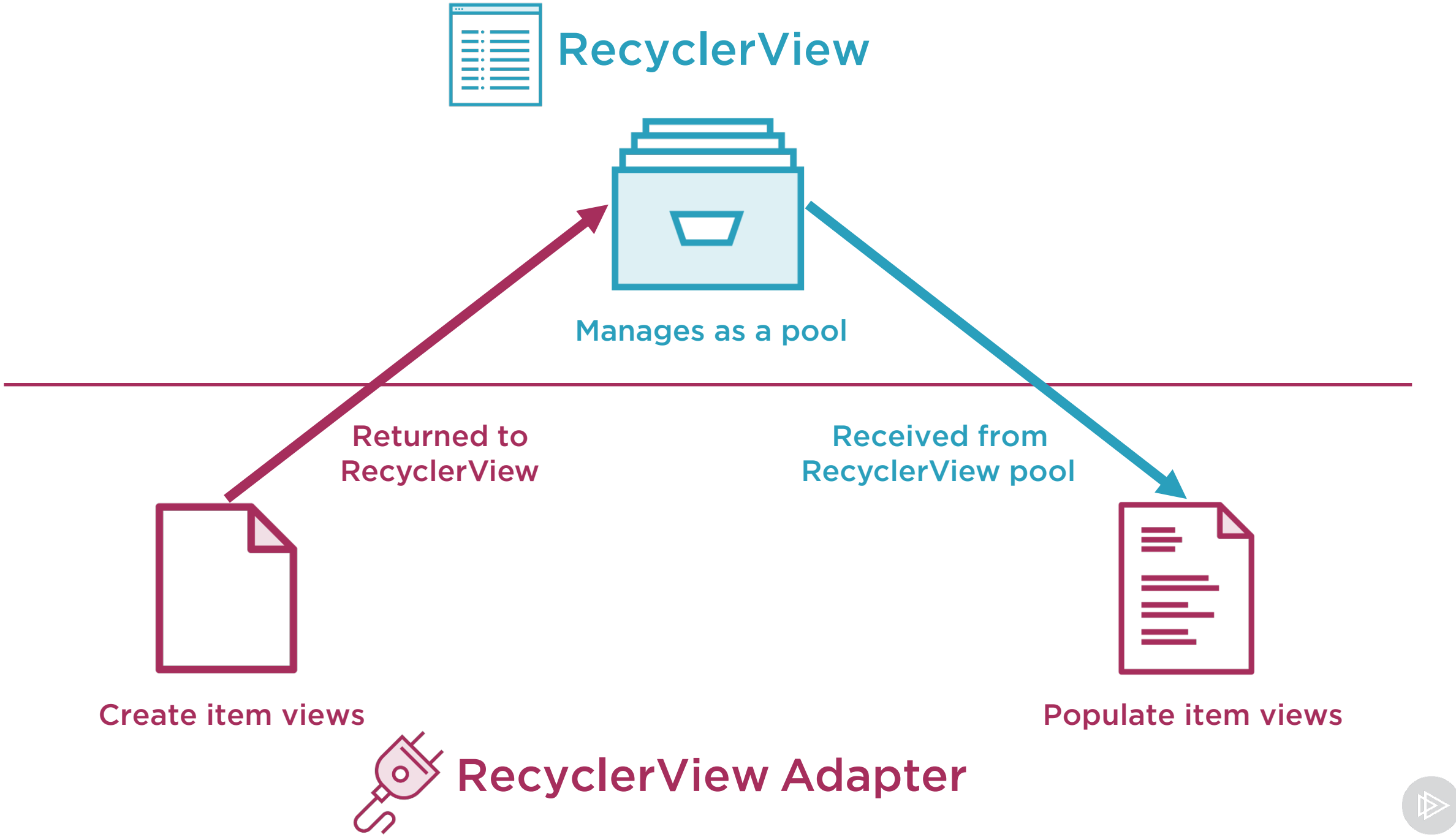
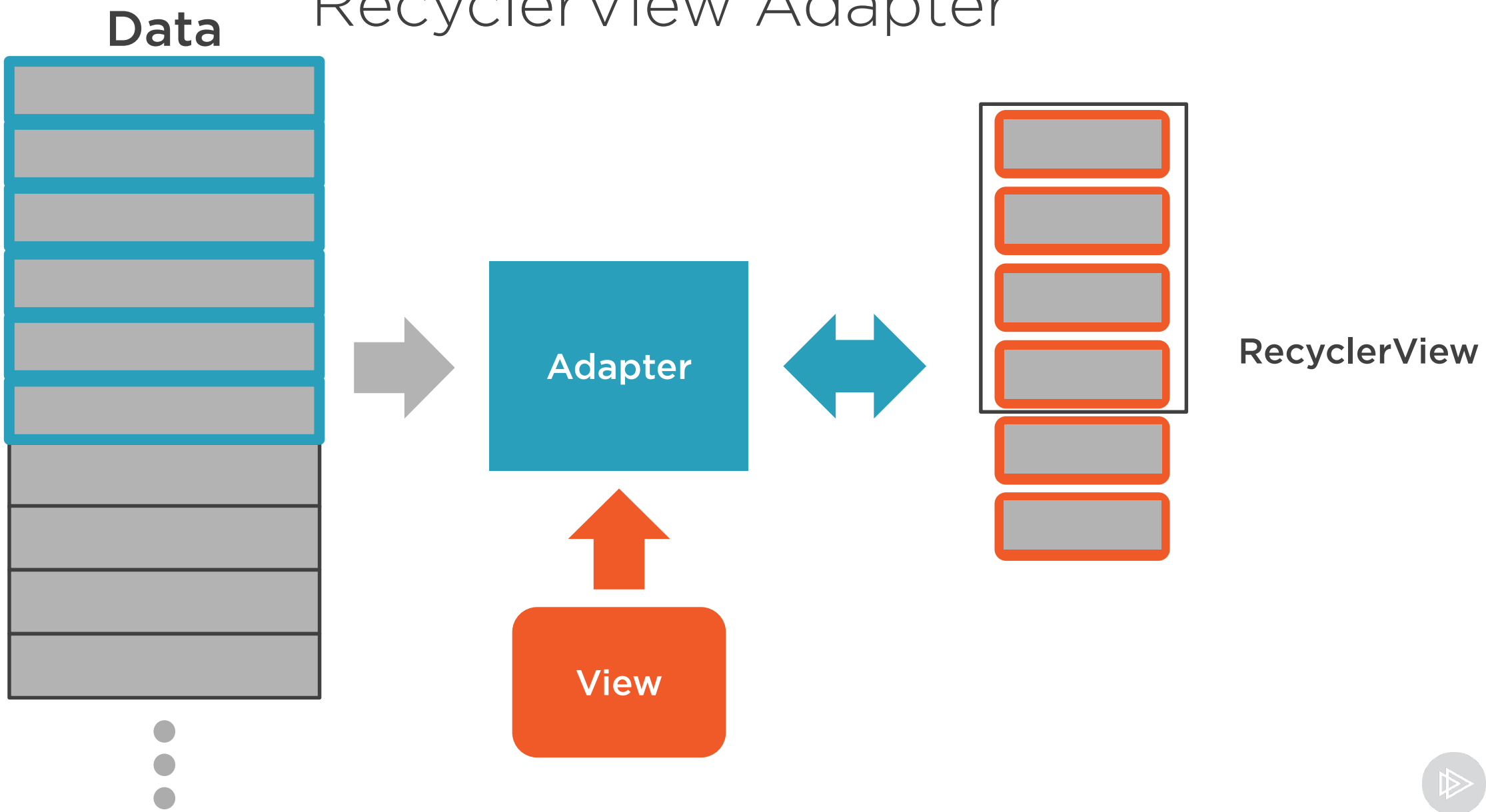
What to Expect from This Module

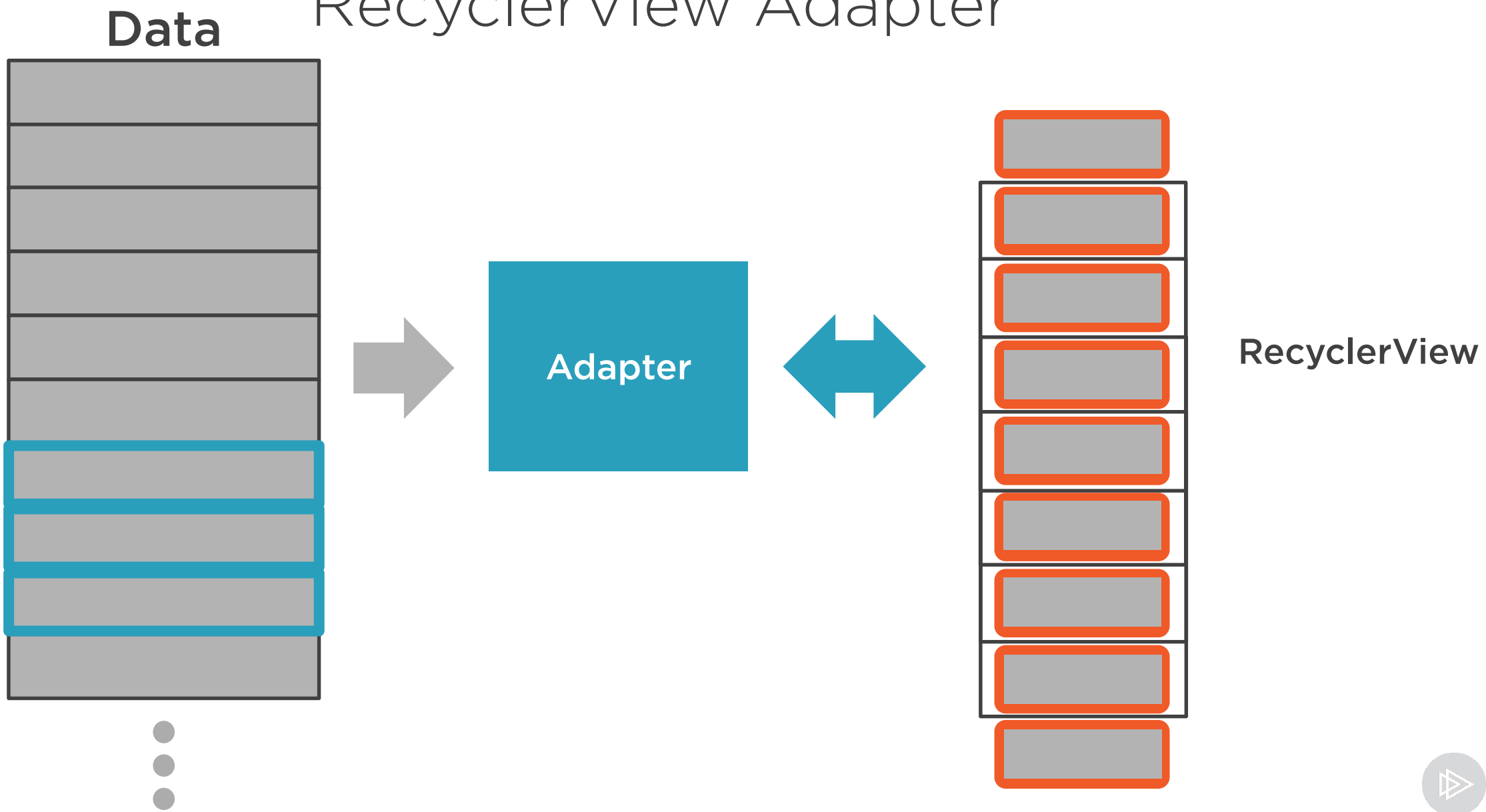
- RecyclerView and Adapter Interaction
- Implementing RecyclerView Adapter
- Adapter View Management
- Adapter Data Management
- RecyclerView Item Selection


RecyclerView
Manages as a pool
Returned to RecyclerView
Received from RecyclerView pool
Create item views
Populate item views
RecyclerView Adapter

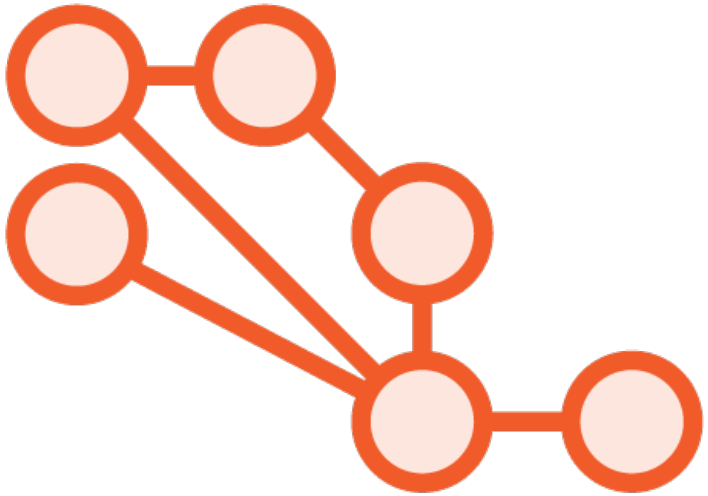
RecyclerView Adapter



RecyclerView Adapter



Item View Holders



Views managed using view holder pattern

Holds a reference to top-level view

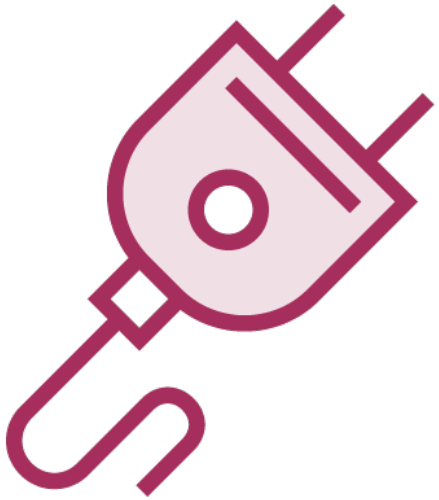
Holds references to contained views

Use a custom view holder class

Extends RecyclerView.ViewHolder

Fields for contained views

Implementing RecyclerView Adapter



Extend RecyclerView.Adapter

Pass view holder class as type parameter

View holder class normally nested within

Implementing RecyclerView Adapter

getItemCount

Return number of items

onCreateViewHolder

Create item view

Store item view references in view holder

onBindViewHolder

Receives view holder and display position

Set display values using view holder

RecyclerView Item Selection

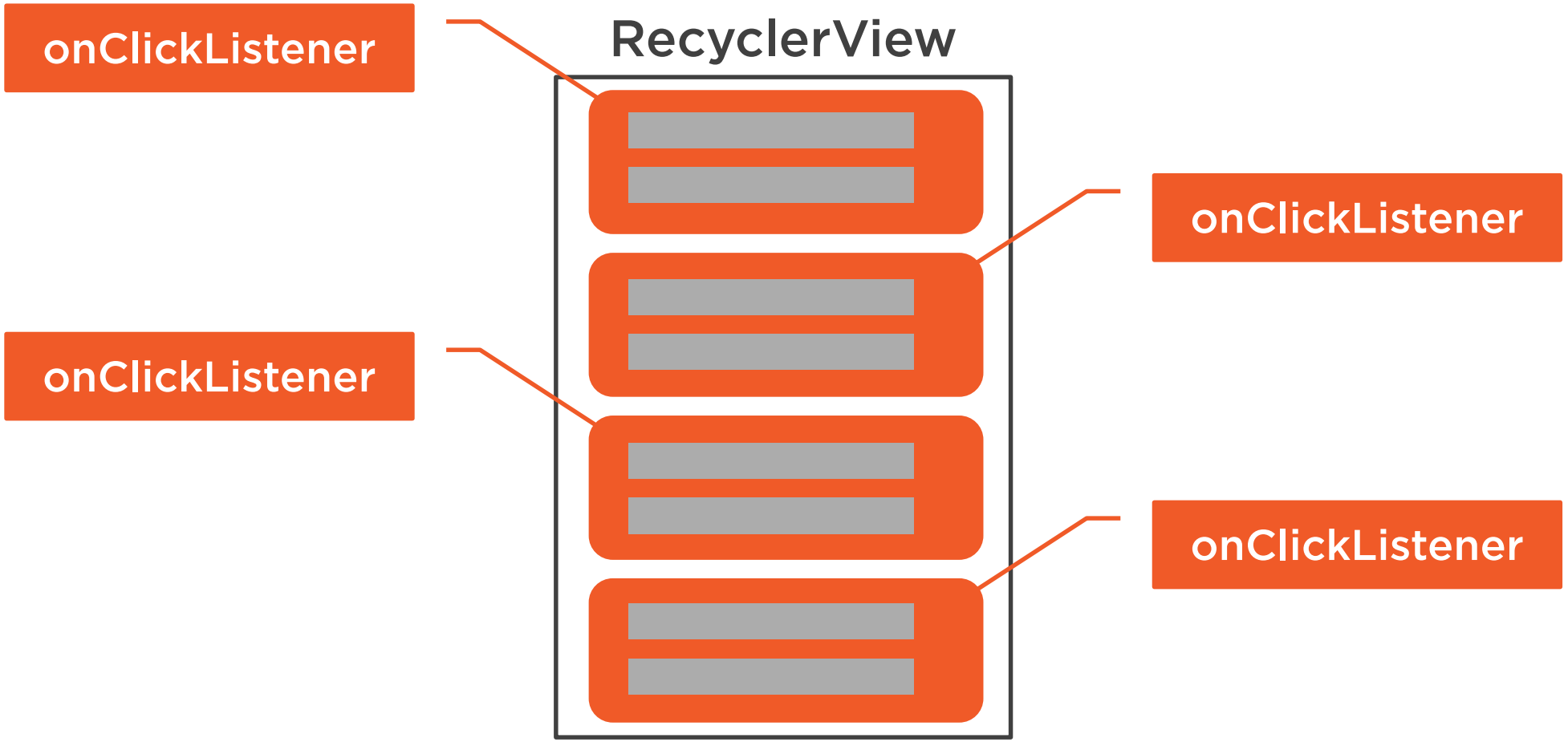
ListView item selection

- Used AdapterView.OnItemClickListener
- RecyclerView takes different approach

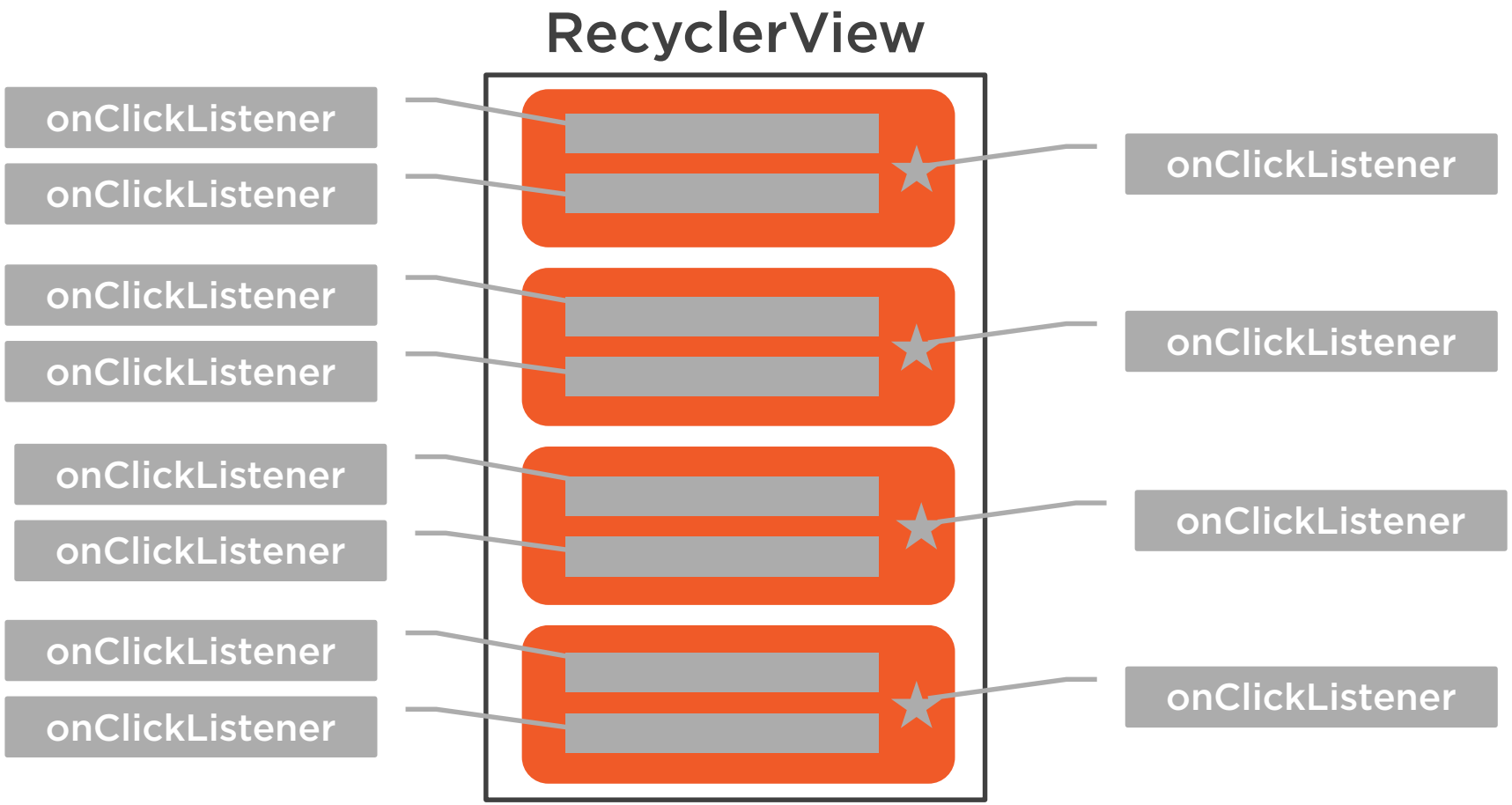
RecyclerView has no explicit support

- Contained views handle click event
- Allows single item selection
- Allows multiple selections within items

RecyclerView Item Selection



RecyclerView Item Selection



Summary

Adapter is workhorse for RecyclerView

- Extend RecyclerView.Adapter
- Creates view instances
- Associates data with views

Views decoupled from data

- RecyclerView creates just enough views to provide scrolling
- Views stored in a pool

Summary

View holders

- Extend RecyclerView.ViewHolder
- Contain item top-level view
- Hold references to contained views

Binding data

- Adapter binds data to views
- Values set into existing view holder

Summary

RecyclerView selection

- No explicit item selection support
- Contained Views handle click event

Single item selection

- Click handler added to top-level view

Multiple selections within items

- Contained views provide click handler