# Binding Data to RecyclerView

**Jim Wilson**
MOBILE SOLUTIONS DEVELOPER & ARCHITECT

@hedgehogjim  blog.jwhh.com

# What to Expect from This Module

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

# RecyclerView Adapter

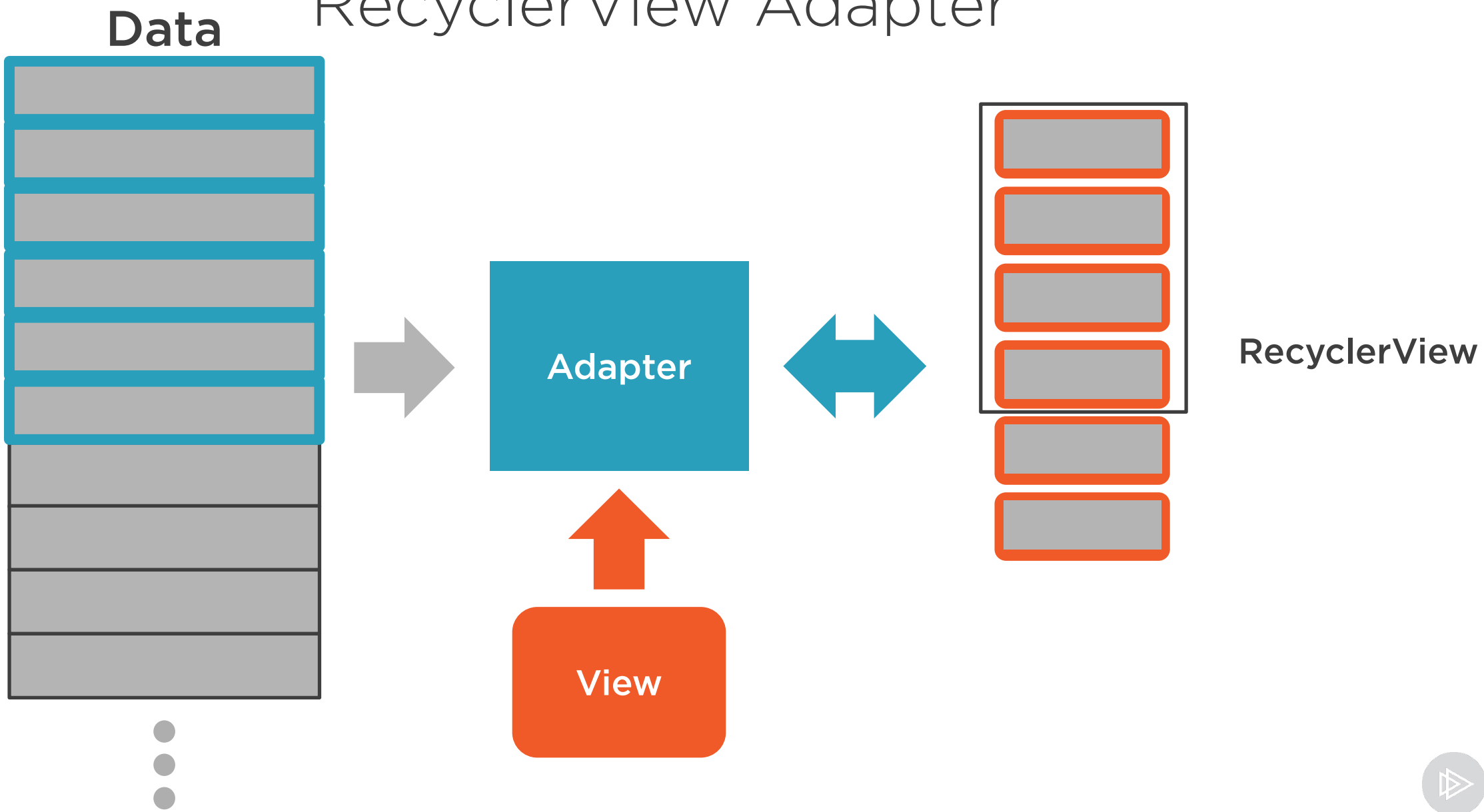
**Create item views**

- Returned to RecyclerView
- RecyclerView manages as a pool

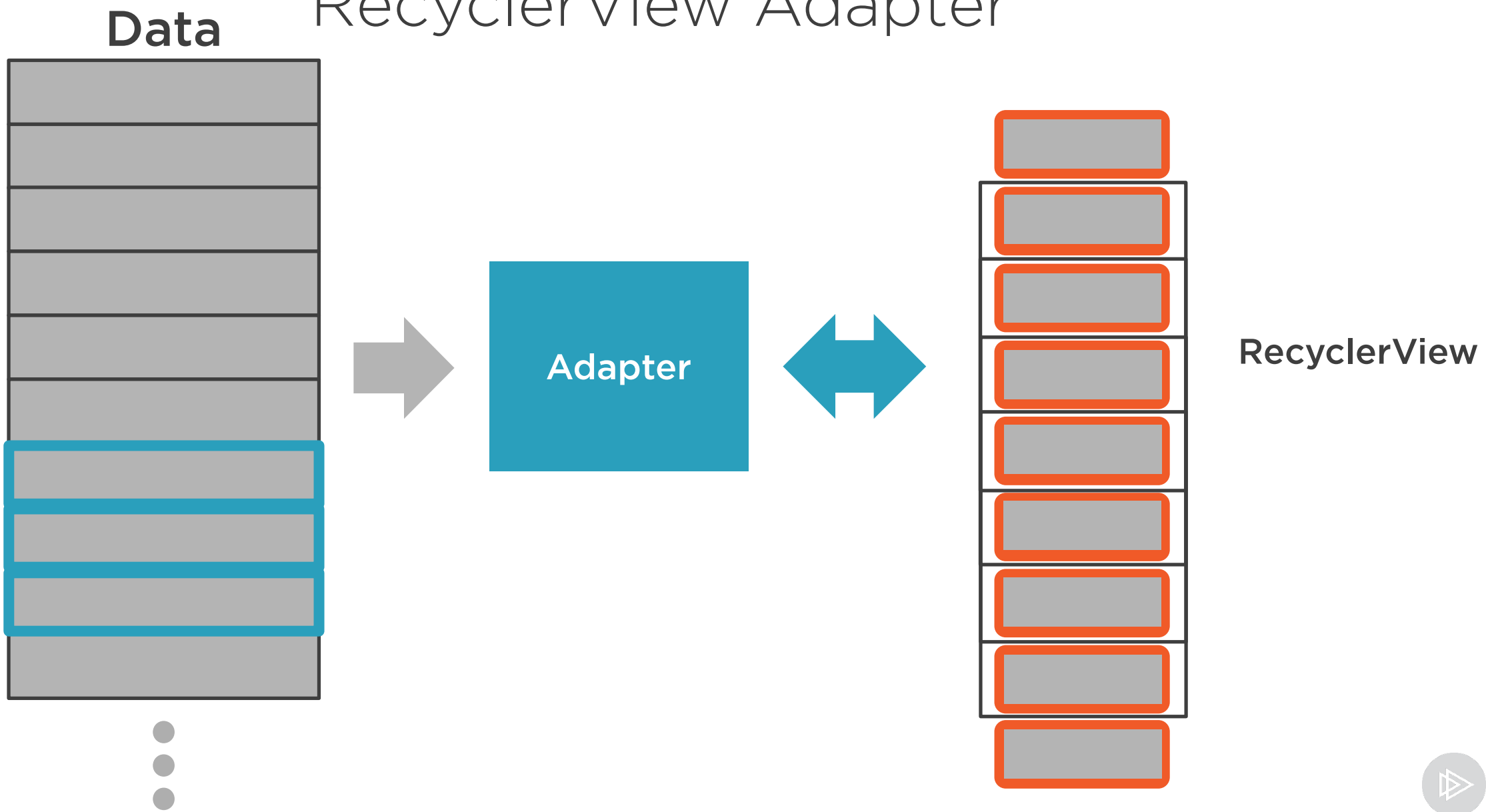
**Populate item views**

- Received from RecyclerView pool

# 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

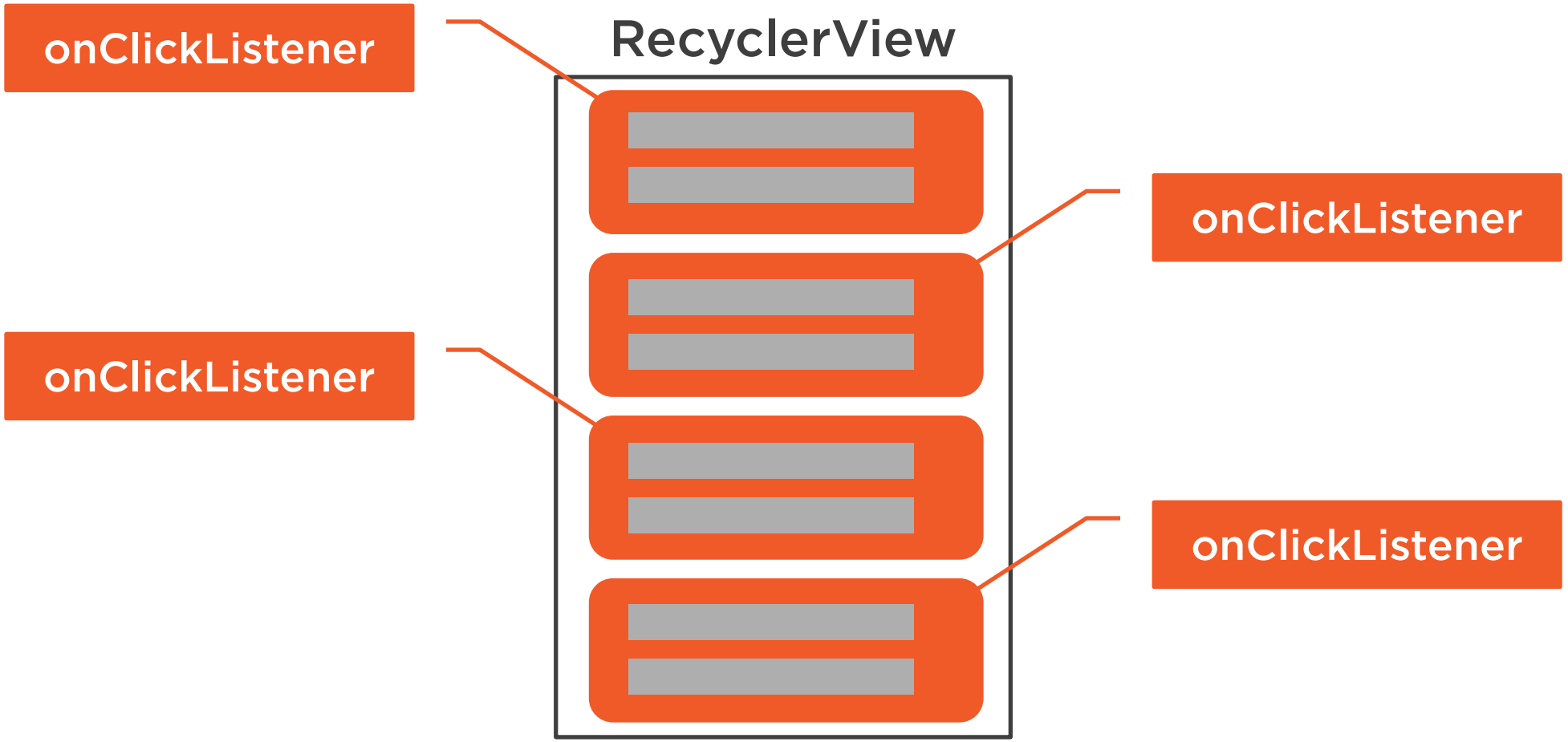
**ListView item selection**

- Used AdapterView.OnItemClickListener
- RecyclerView takes different approach

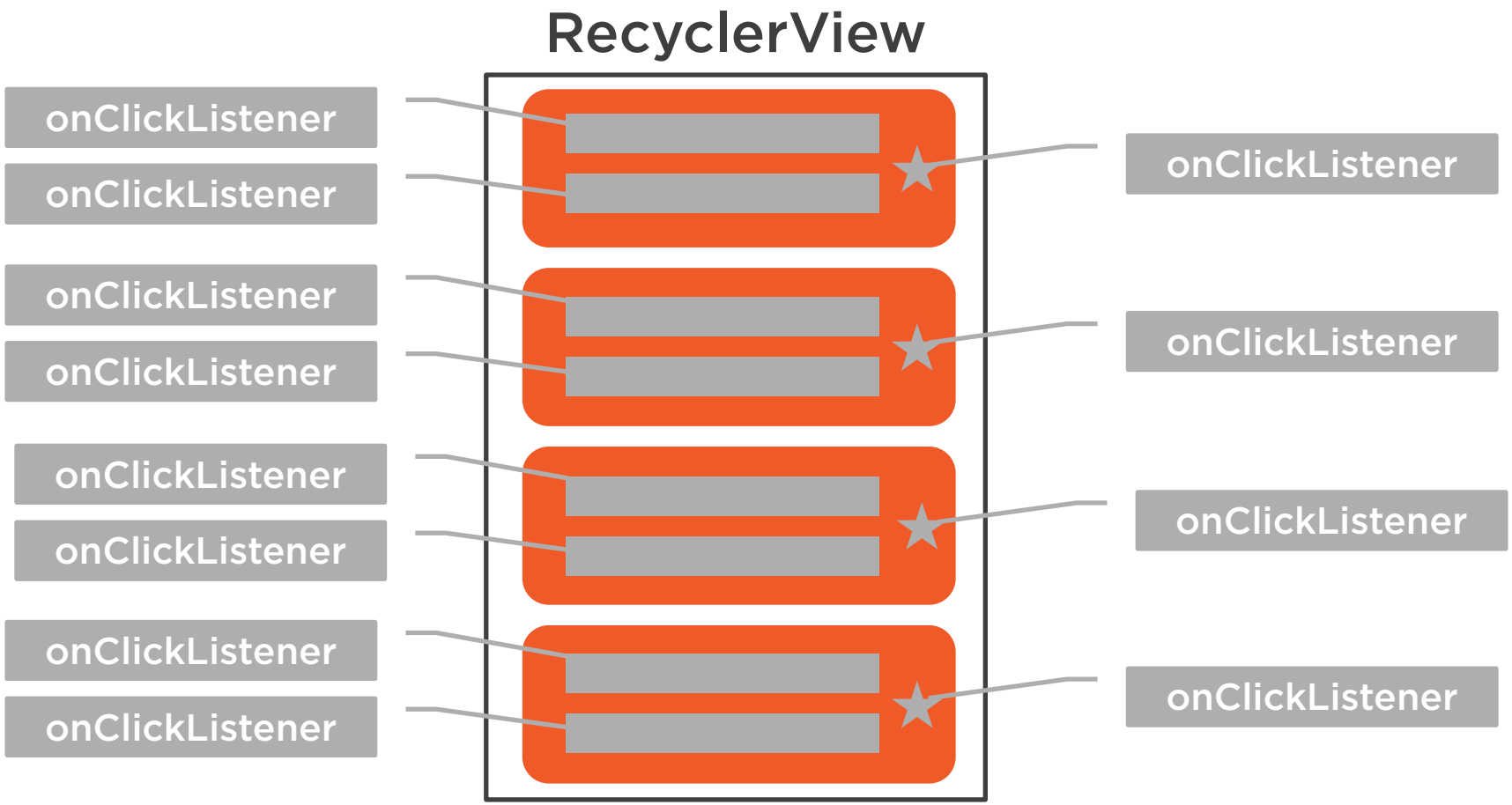
**RecyclerView has no explicit support**

- 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