

Connecting SQLite Data to Views with Adapters



Jim Wilson

MOBILE SOLUTIONS DEVELOPER & ARCHITECT

@hedgehogjim blog.jwhh.com



What to Expect from This Module



App Plan

CursorAdapter

SimpleCursorAdapter

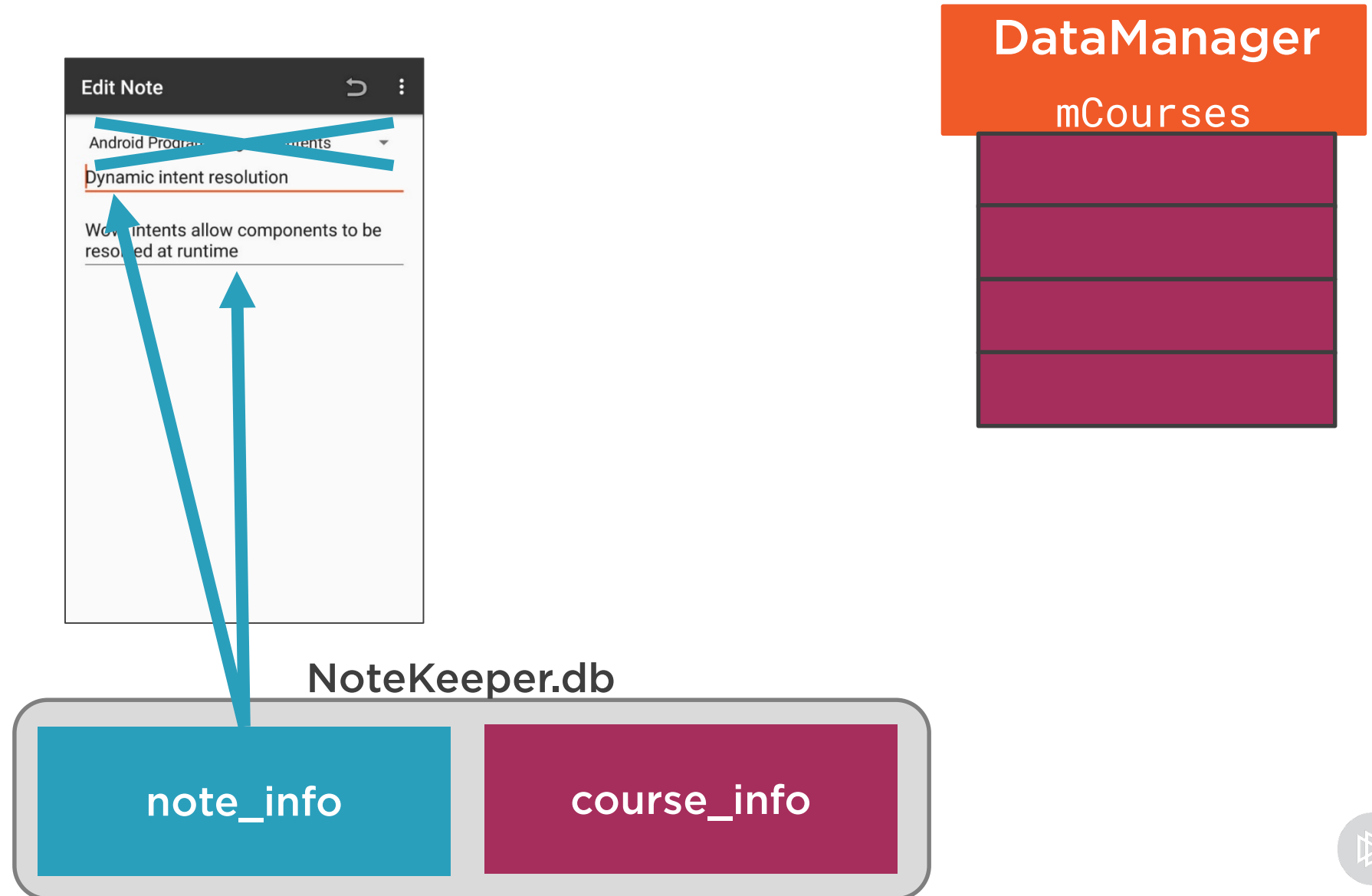
Populating Course Spinner from Database

Using a Cursor with RecyclerView Adapter

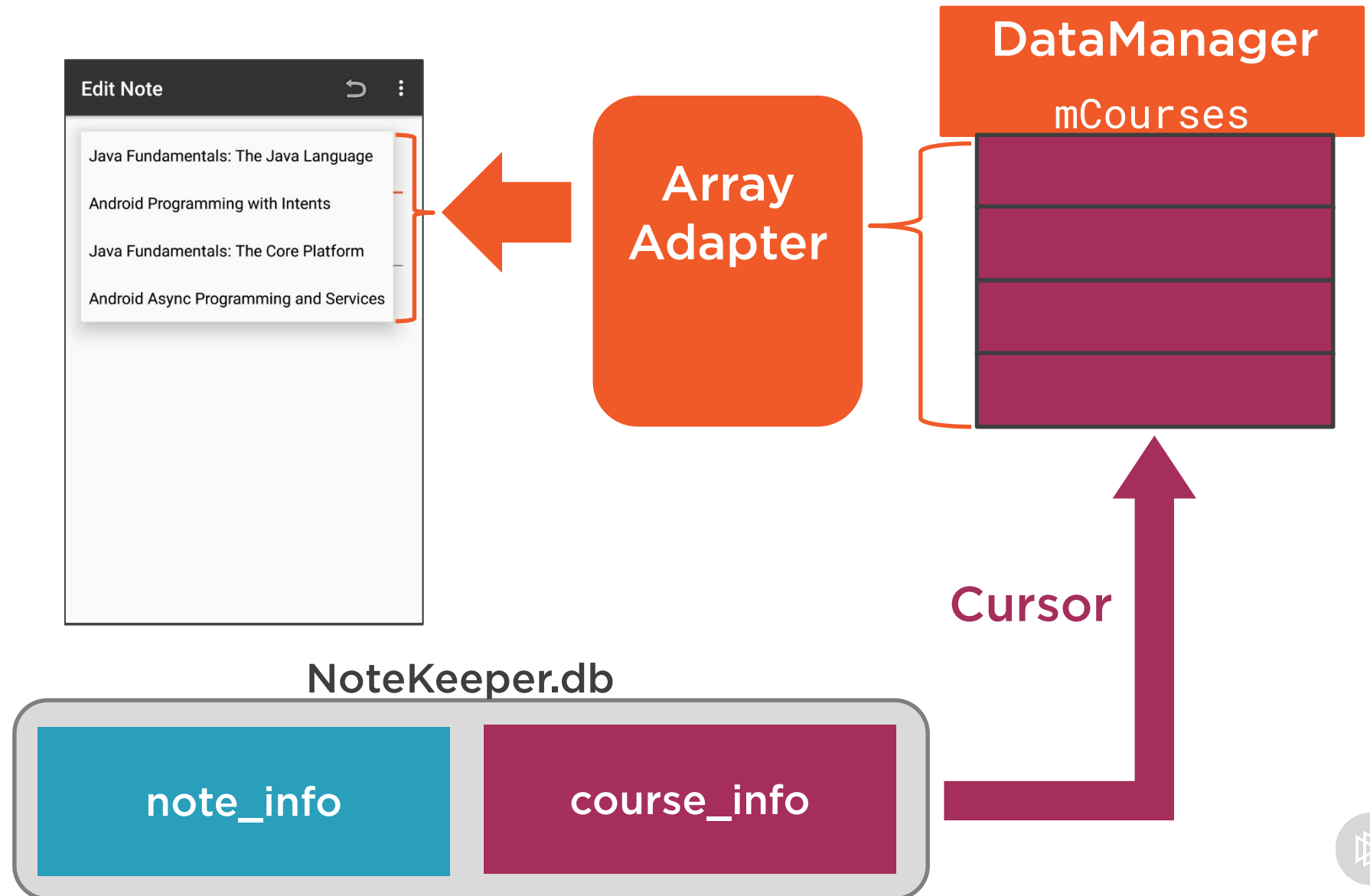
Populating Note RecyclerView from Database



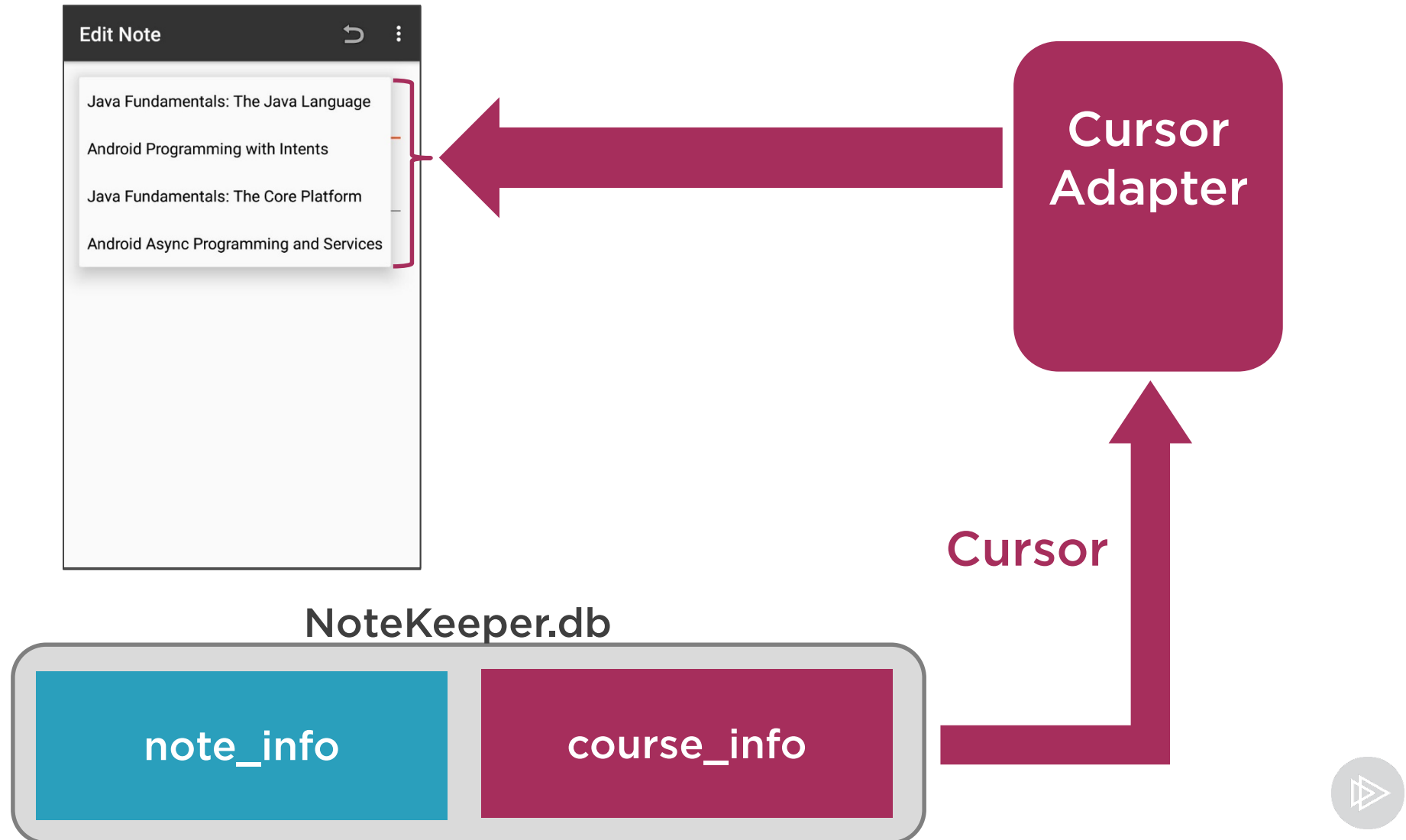
Populating NoteActivity



Populating NoteActivity



Populating NoteActivity



CursorAdaptor

Populates Spinner/ListView from Cursor

- Manages Cursor interaction
- Provides methods for creating views
- Provides methods for binding views



CursorAdaptor

Associating Cursor

- Can use constructor
- Can use `changeCursor` method

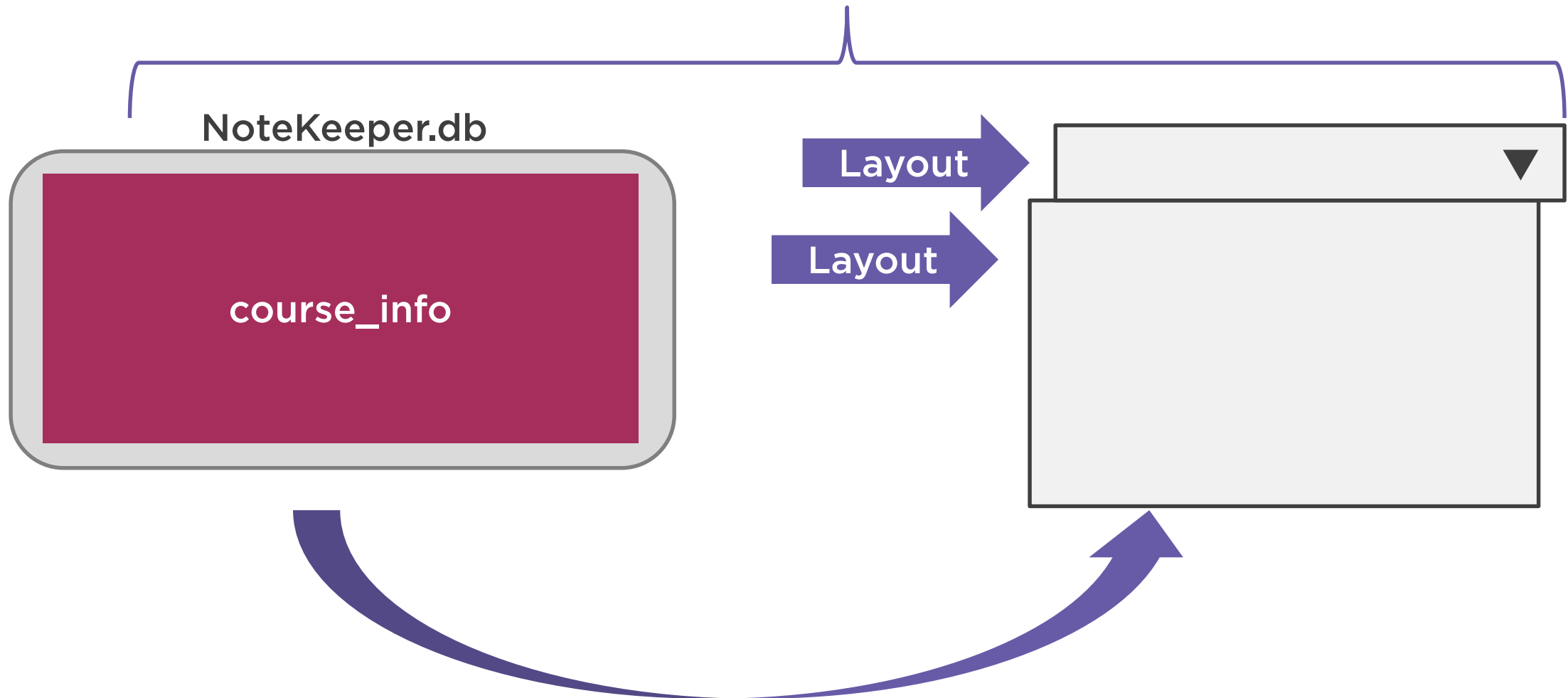
Using `changeCursor` method

- Associates new cursor
- Closes previous cursor
- Call with null when done with adaptor



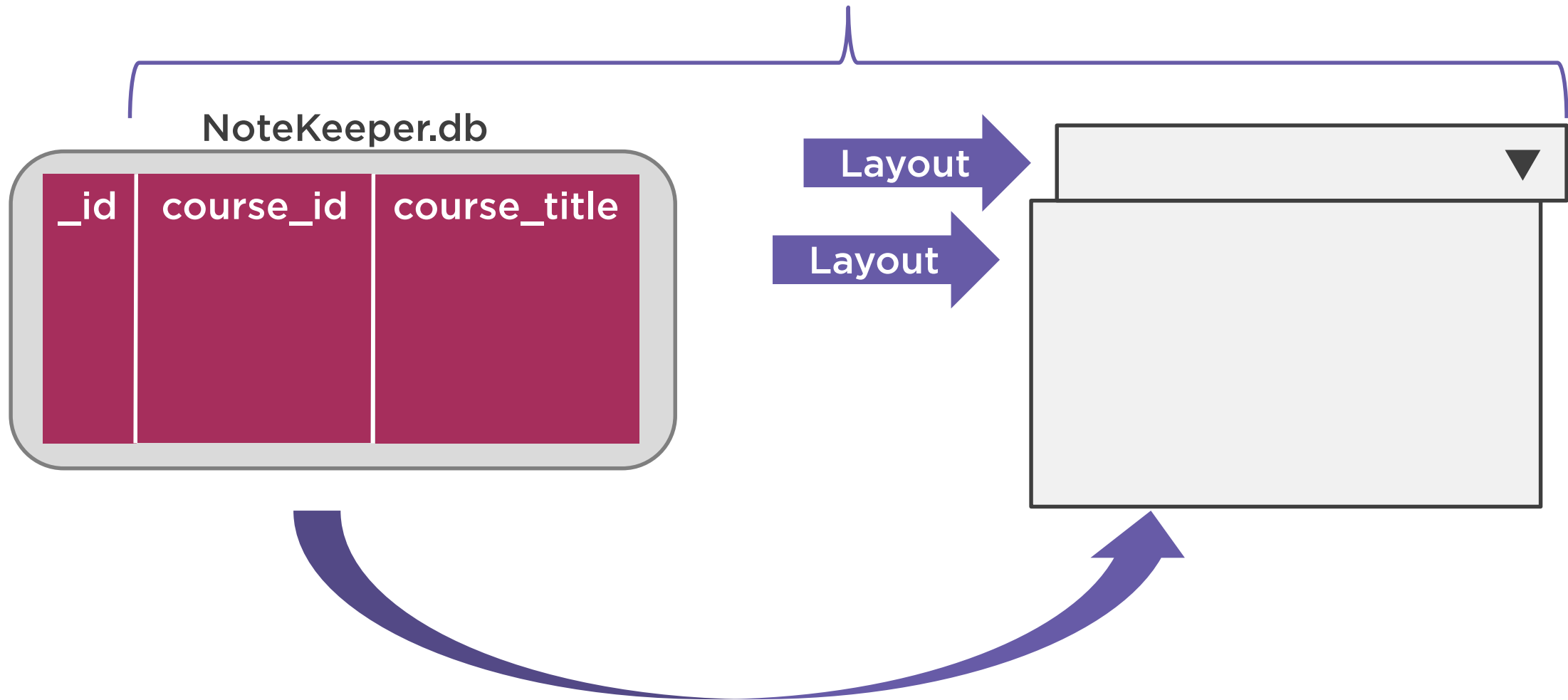
Populating a Spinner

CursorAdapter



Populating a Spinner

CursorAdapter



CursorAdaptor

CursorAdaptor is extremely flexible

- You have to handle display details
- You must add code to create views
- You must add code to populate views



Simple CursorAdaptor

Extends CursorAdapter

- Leverages same cursor management

Provides default display handling

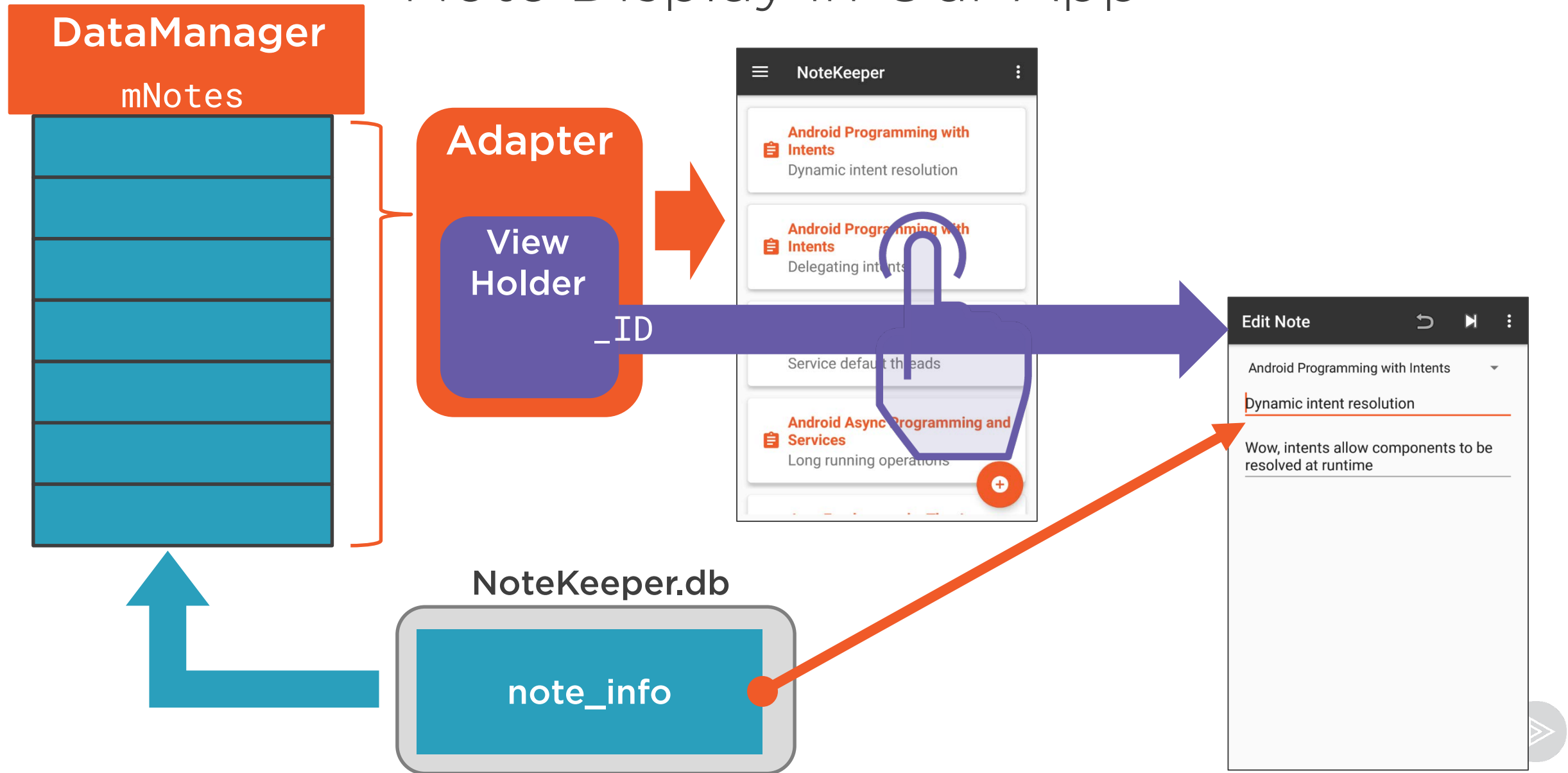
- Works for most common scenarios

You provide the basic display information

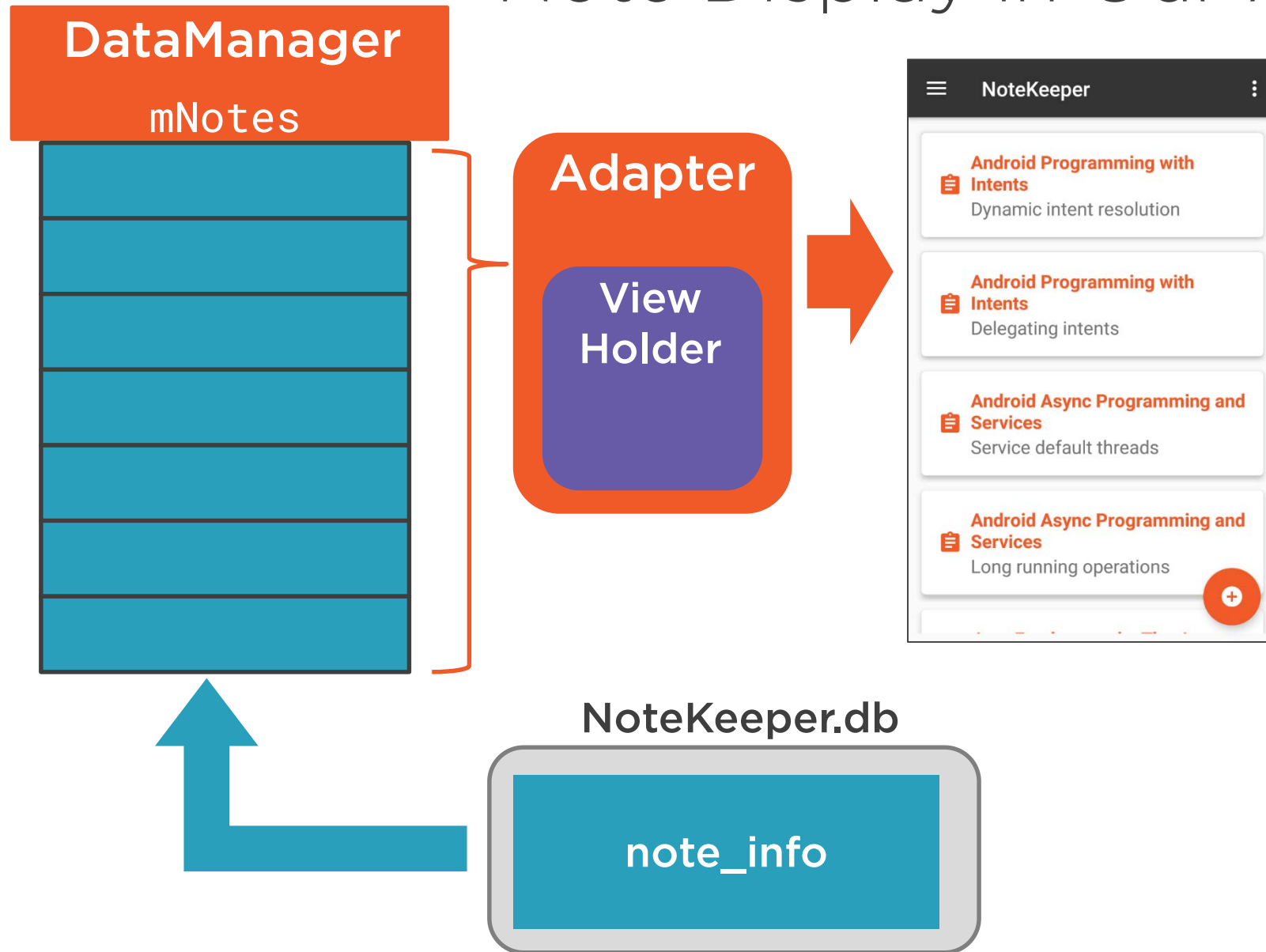
- Display resources
- Map of column names to view ID's



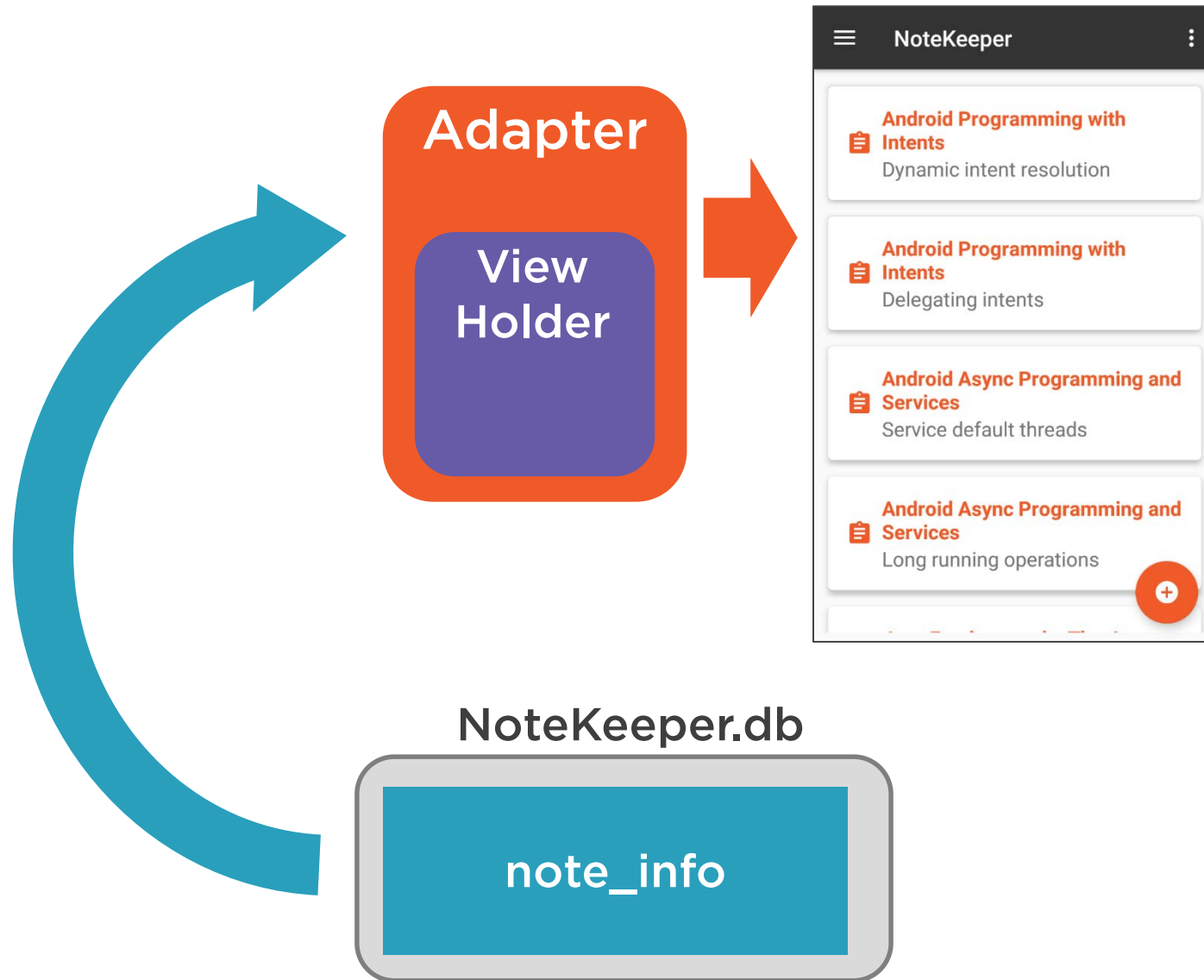
Note Display in Our App



Note Display in Our App



Note Display in Our App



RecyclerView Adapter With a Cursor

Adapter data source

- Use cursor as data source
- Allow passing cursor to constructor
- Allow changing associated cursor



RecyclerView Adapter With a Cursor

Adapter view management

- Create ViewHolder instances
- RecyclerView manages as a pool

Role of each ViewHolder instance

- Holds references to contained views
- Handles view interaction



RecyclerView Adapter With a Cursor

Adapter data display

- Move cursor to a specific position
- Retrieve desired column values
- Set display values using ViewHolder



Summary



CursorAdaptor

- Populates Spinner/ListView with data from a Cursor

CursorAdaptor extremely flexible

- Manages Cursor interaction
- Provides methods for creating views
- Provides methods for binding views



Summary



SimpleCursorAdapter

- Extends CursorAdapter
- Provides default display handling

Using SimpleCursorAdapter

- Provide display resources
- Provide map of columns to view IDs





RecyclerViews and Cursors

- Extend RecyclerView.Adapter
- View management same as when working with other data sources
- Provide Cursor management
- Provide data display