

Glazed Lists

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Survey

Have you Glazed?

“JTable has a problem where binding to them is more rich than binding to other components”

-- Hans Muller, 11 minutes ago

What is it?

Project Profile

- Actively developed
- Free, open source
- Stable & well tested

What problems does it solve?

- Table sorting & filtering
- Deep binding

Make your app smarter

- Do sorting very well
- Live text filtering
- Decouple domain model from UI

You know the API

- ArrayList + Observer Pattern = EventList

Simple Example

A sorted, filtered table

Step 1 of 4: BasicEventList

- Holds your data
- Observable

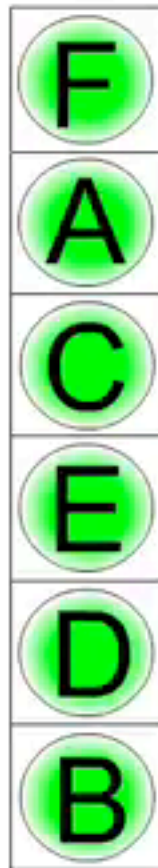


Step 1 ½ of 4

TransformedList

- An EventList that decorates another EventList
- Observable

ArrayList



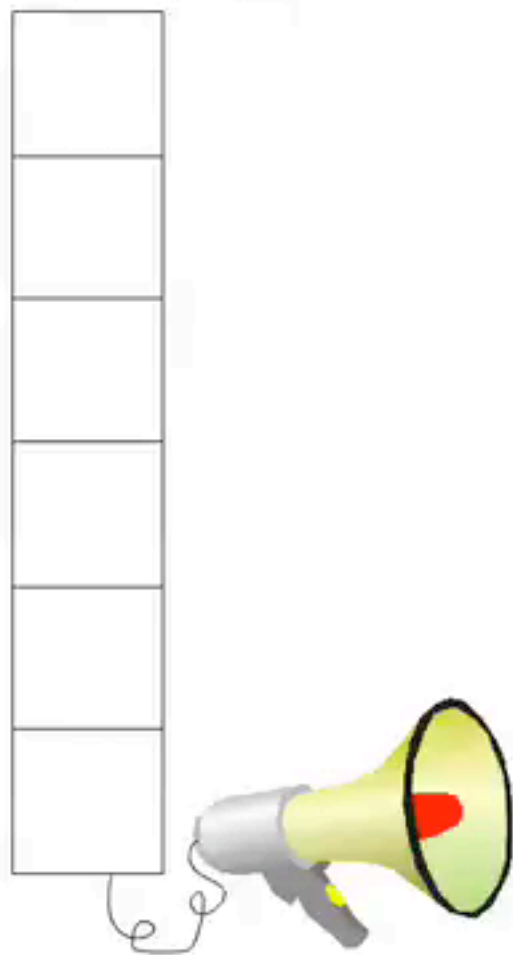
BasicEventList



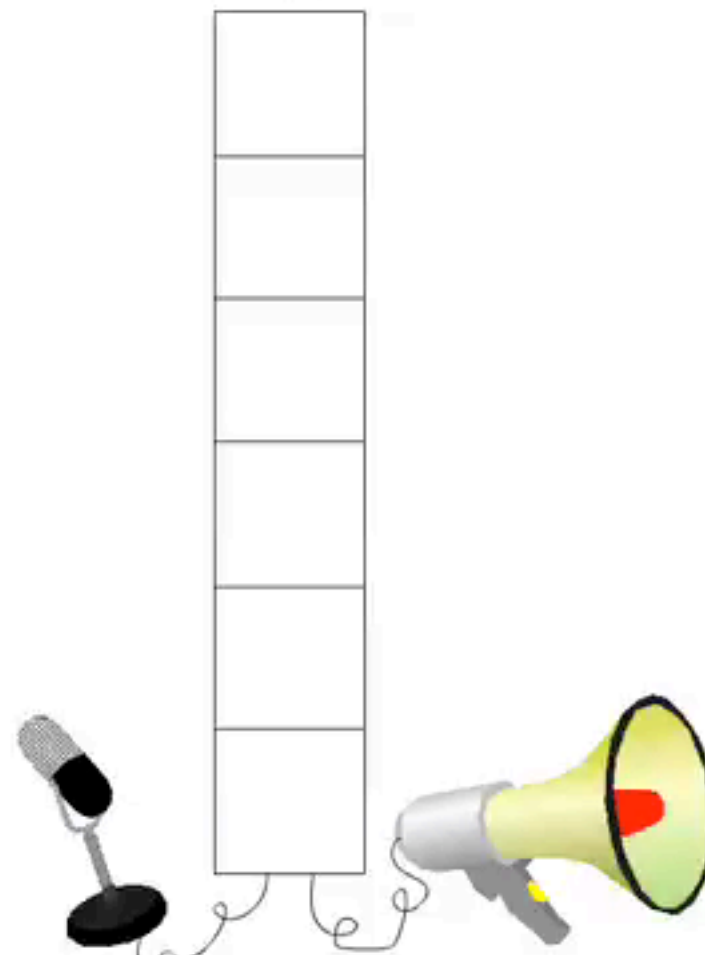
Step 2 of 4: SortedList

- One of the TransformedLists
- A view of your data

BasicEventList



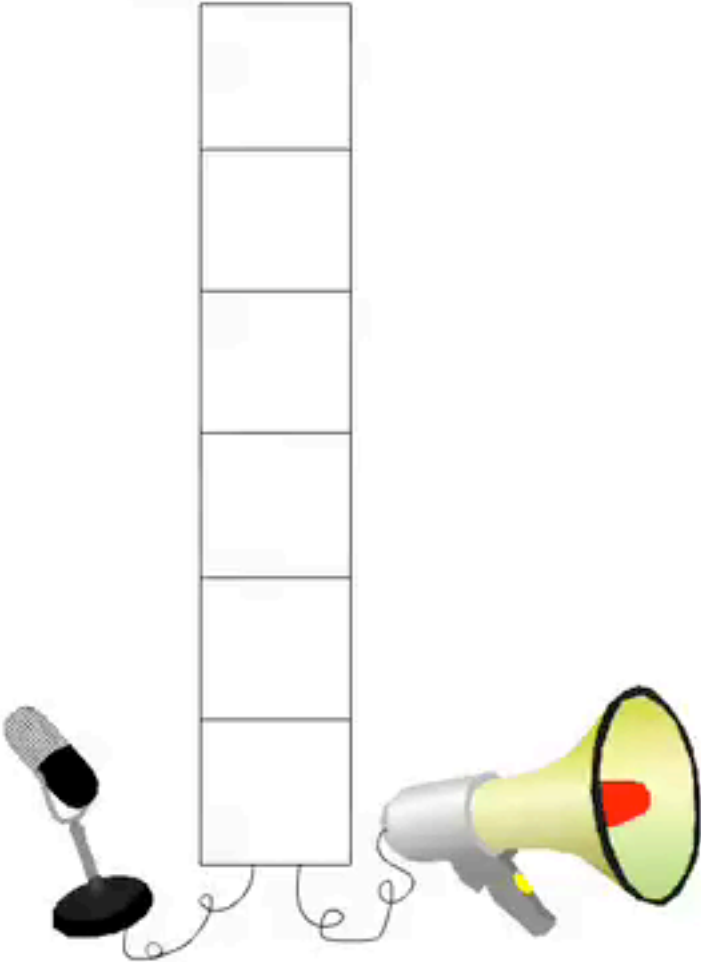
SortedList



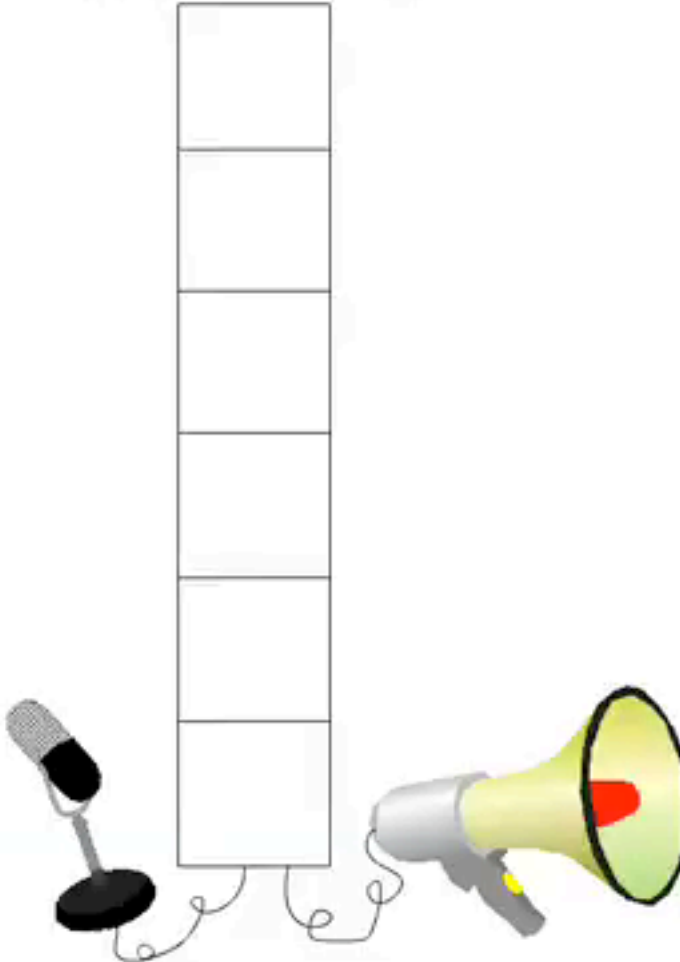
Step 3 of 4: FilterList

- Matcher, MatcherEditor interfaces for creating custom filters
- Built-in matchers for iTunes-style filtering

SortedList



FilterList
(vowels only)



Step 4 of 4: EventTableModel

- TableFormat provides the columns
- EventList provides the rows

Demo

Interesting Examples

“Deep Binding”

Deep Binding?

- Your data and view don't line up perfectly
 - Songs to Artists
 - Rock Stars by Band

Songs to Artists: Input

- Cake, The Distance
- Eminem, Lose Yourself
- ACDC, Shoot to Thrill
- Cake, Short Skirt Long Jacket
- ACDC, Thunderstruck

Songs to Artists: Output

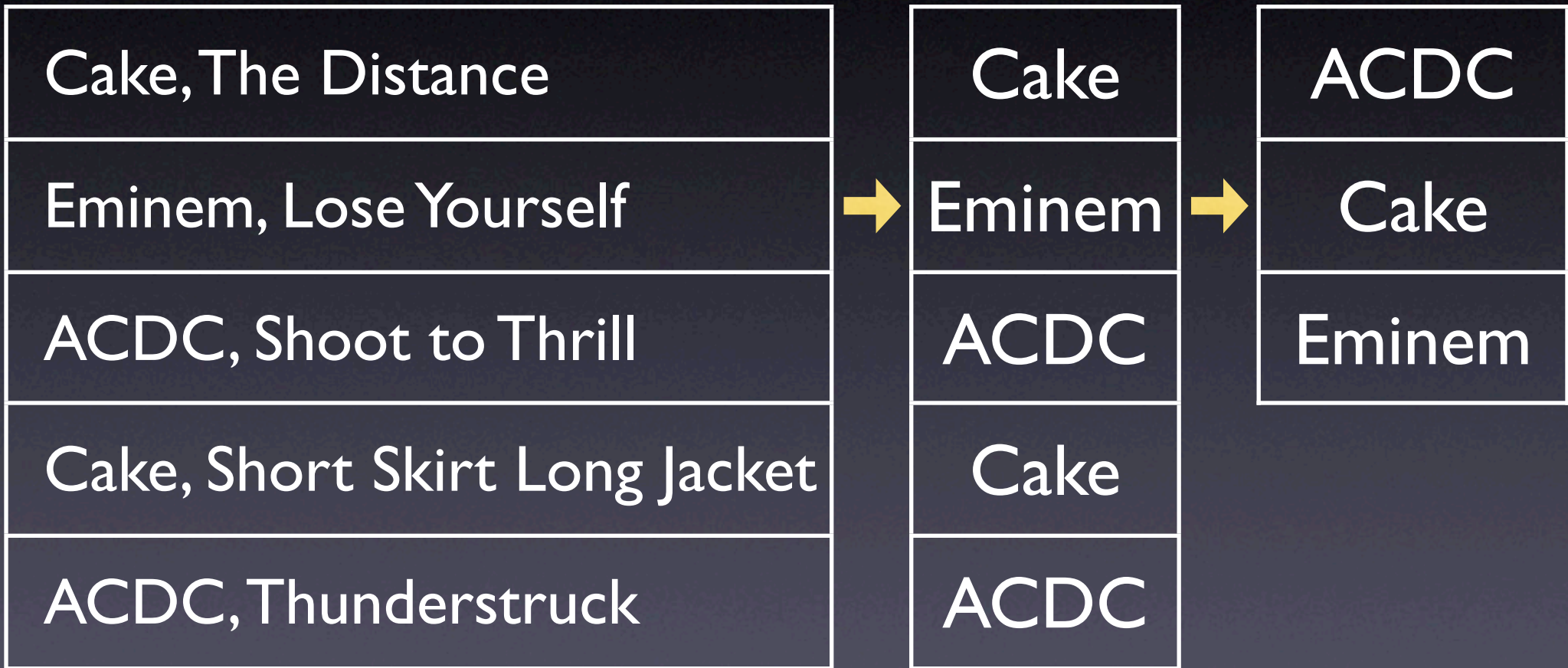
- ACDC
- Cake
- Eminem

Songs to Artists: Pipeline

- `EventList<Song>`
- `FunctionList` of artists
- `UniqueList` of artists

- Add more songs, the corresponding artists show up automatically

Songs to Artists



Rock Stars by Band Input

- Kurt Cobain, Nirvana
- Billy Joe, Green Day
- Mick Jagger, Rolling Stones
- Keith Richards, Rolling Stones
- Dave Grohl, Nirvana
- Tre Cool, Green Day

Rock Stars by Band Output

- Green Day: Billy Joe, Tre Cool
- Nirvana: Kurt Cobain, Dave Grohl
- Rolling Stones: Mick Jagger, Keith Richards

Rockstars by Band Pipeline

- `EventList<RockStar>`
- `GroupingList` groups by band using a `Comparator`

Rockstars by Band

Kurt Cobain, Nirvana

Billy Joe, Green Day

Mick Jagger, Rolling Stones

Keith Richards, Rolling Stones

Dave Grohl, Nirvana

Tre Cool, Green Day



Green Day: Billy Joe,
Tre Cool

Nirvana: Kurt
Cobain, Dave Grohl

Rolling Stones: Mick
Jagger, Keith Richards

What Else?

Plays well with others

- Swing
- SWT
- JFreeChart
- SwingLabs
- Binding JSR ?

Pitfalls

- Remember to call `lock()`, `unlock()`
- Remember to call `dispose()`

Glazed Lists

- Easy for developers
- Great for users
- High Performance
- A powerful tool for your toolbox