

VIDEO 3: END-TO-END DASHBOARD DESIGN

Complete Playbook – FreshMarket Executive Reporting

Duration: 35-40 minutes

Industry: Australian Grocery Retail

Focus: Professional dashboard design, UI/UX, interactivity, Power BI Service publishing

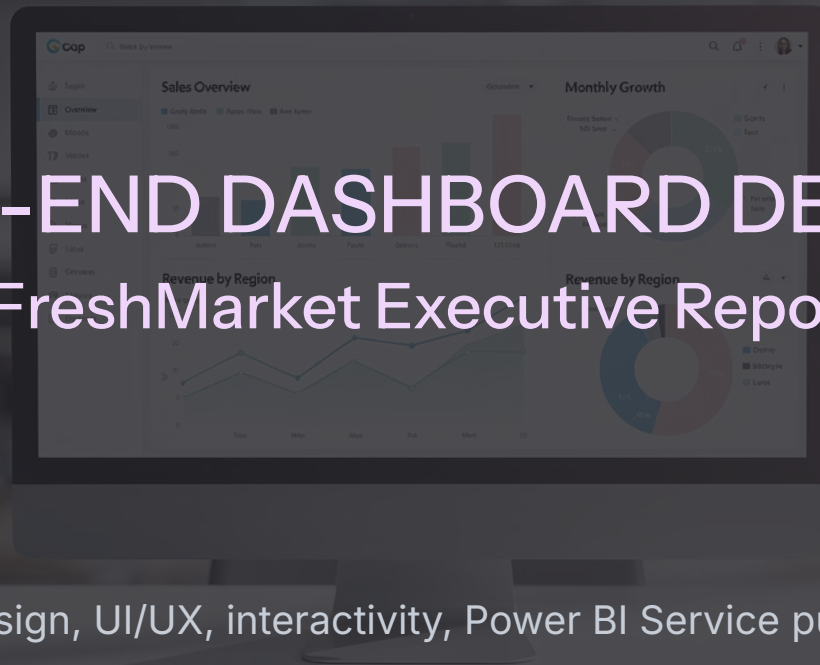


TABLE OF CONTENTS





01	02
Session Overview & Learning Outcomes	Business Requirements Review
03	04
Dashboard Design Principles	Page 1: Executive Summary
05	06
Page 2: Operational Details	Visual Design & Layout

SESSION OVERVIEW & LEARNING OUTCOMES

Duration: 35-40 minutes












What You'll Build

A **production-ready, two-page Power BI dashboard** featuring:

-  Executive Summary (KPIs, trends, state map, top performers)
-  Operational Details (drill-through, detailed tables, filtering)
-  Professional UI/UX (corporate colors, consistent layout, accessibility)
-  Interactive features (slicers, bookmarks, tooltips, drill-through)





Learning Outcomes

By the end of this session, you will be able to:

-  Design executive dashboards following UI/UX best practices
-  Create KPI cards, trend lines, maps, and comparison visuals
-  Implement drill-through pages for detailed analysis
-  Apply corporate branding (colors, fonts, layouts)
-  Build interactive features (slicers, bookmarks, tooltips)
-  Optimize report performance (<3 second page load)
-  Ensure accessibility (color contrast, alt text, keyboard navigation)
-  Publish to Power BI Service with workspace organization
-  Configure scheduled refresh with on-premises gateway
-  Implement row-level security (RLS) for data governance
-  Design mobile layouts for executive viewing

Why This Matters

Executive dashboards are your showcase. They demonstrate:

 Business acumen understanding what executives need to see	 Design skills professional layout and visual hierarchy
 Technical excellence fast, responsive, accessible reports	 Governance awareness security, deployment, refresh automation






According to Gartner research, **70% of business intelligence projects fail** due to poor user adoption. The #1 reason? **Poorly designed dashboards that executives don't use.**

A well-designed dashboard:

- Gets used daily by executives
- Drives data-driven decision making
- Becomes the "single source of truth"
- Showcases your skills in interviews and portfolios

Enterprise Impact

For FreshMarket, this dashboard enables:

-  **Daily performance monitoring** - CFO checks YTD revenue every morning
-  **State-level comparisons** - identify underperforming regions
-  **Product portfolio optimization** - double down on top performers
-  **Budget accountability** - track variance by category and store
-  **Mobile access** - executives view KPIs on phones during travel

BUSINESS REQUIREMENTS REVIEW

Where We Are (After Project 2)

✓ **Star schema model** (1 fact + 5 dimensions)

✓ **20+ DAX measures** (revenue, margins, time intelligence, budget variance)

✓ **Australian FY date table** (July 1 - June 30)

✓ **Optimized performance** (42 MB, <1 second queries)

✓ **Validated accuracy** (99.8% reconciliation)

Current state: Data model ready, measures validated, no visuals yet.

Stakeholder Requirements

CFO (Financial Performance):

"I need to see YTD revenue, gross margin %, and budget variance at a glance every morning. Show me which states are over/under budget. I want to drill into categories and stores."

Head of Operations (Store & Product Performance):

"Show me the top 10 products and bottom 10 stores by margin. I need to identify underperformers for intervention. Give me detailed tables I can export."

CMO (Marketing Effectiveness):

"Show me revenue trends by channel (In-Store, Online, Click & Collect). Which products are growing YoY? I need this on my phone during client meetings."

CEO (High-Level Overview):

"One page that shows: Are we hitting budget? Are we growing? Where are the problems? I have 30 seconds to review this each morning before meetings."

Dashboard Scope

Page 1: Executive Summary (30-second glance)

- Large KPI cards: Revenue, Margin %, Budget Achievement, YoY Growth
- Revenue trend line (12 months with YTD vs Prior Year)
- Australia state map showing revenue by location
- Top 5 products by revenue (bar chart)
- Channel performance comparison (pie/donut chart)

Page 2: Operational Details (deep analysis)

- Product performance table (sortable, exportable)
- Store performance matrix (drill-through enabled)
- Budget variance table by category
- Date range slicer, state filter, category filter
- Drill-through to individual store/product details

Navigation:

- Tabs/buttons to switch between pages
- Bookmarks for quick views ("Show All", "NSW Only", "Over Budget Only")
- Tooltips showing detail on hover
- Drill-through from summary to details

DASHBOARD DESIGN PRINCIPLES

The 7 Golden Rules of Dashboard Design



1. Visual Hierarchy

- Most important metrics at top-left (where eyes land first)
- KPIs in large cards, supporting details below
- Use size and color to indicate importance



2. Minimize Clutter

- Limit to **8 visuals per page** (more = cognitive overload)
- Remove unnecessary gridlines, borders, backgrounds
- Use white space intentionally



3. Consistent Layout

- Align visuals to grid (View → Snap to grid)
- Maintain consistent spacing between visuals
- Group related visuals together



4. Color with Purpose

- Use corporate brand colors (FreshMarket: Green #2D5016, Blue #004C97)
- Apply color meaningfully (green = positive, red = negative, neutral = gray)
- Avoid rainbow charts (use 2-3 colors maximum)



5. Interactivity

- Enable cross-filtering between visuals (but control it)
- Provide slicers for key filters (date, state, category)
- Add drill-through for detailed exploration



6. Performance

- Target <3 seconds page load time
- Limit to 8 visuals per page
- Avoid complex visuals (especially custom visuals)
- Use Performance Analyzer to identify bottlenecks



7. Accessibility

- Ensure color contrast meets WCAG 2.1 AA standards (4.5:1 ratio)
- Provide alt text for all visuals
- Support keyboard navigation
- Don't rely solely on color to convey information

FreshMarket Brand Guidelines

Colors:

- Primary: Fresh Green (#2D5016) - use for positive metrics, headers
- Secondary: Corporate Blue (#004C97) - use for neutral metrics, accents
- Success: Green (#27AE60) - use for over-budget, positive variance
- Warning: Orange (#F39C12) - use for neutral/on-budget
- Danger: Red (#E74C3C) - use for under-budget, negative variance
- Background: White (#FFFFFF) or Light Gray (#F5F5F5)
- Text: Dark Gray (#2C3E50) for body, Black (#000000) for headers

Fonts:

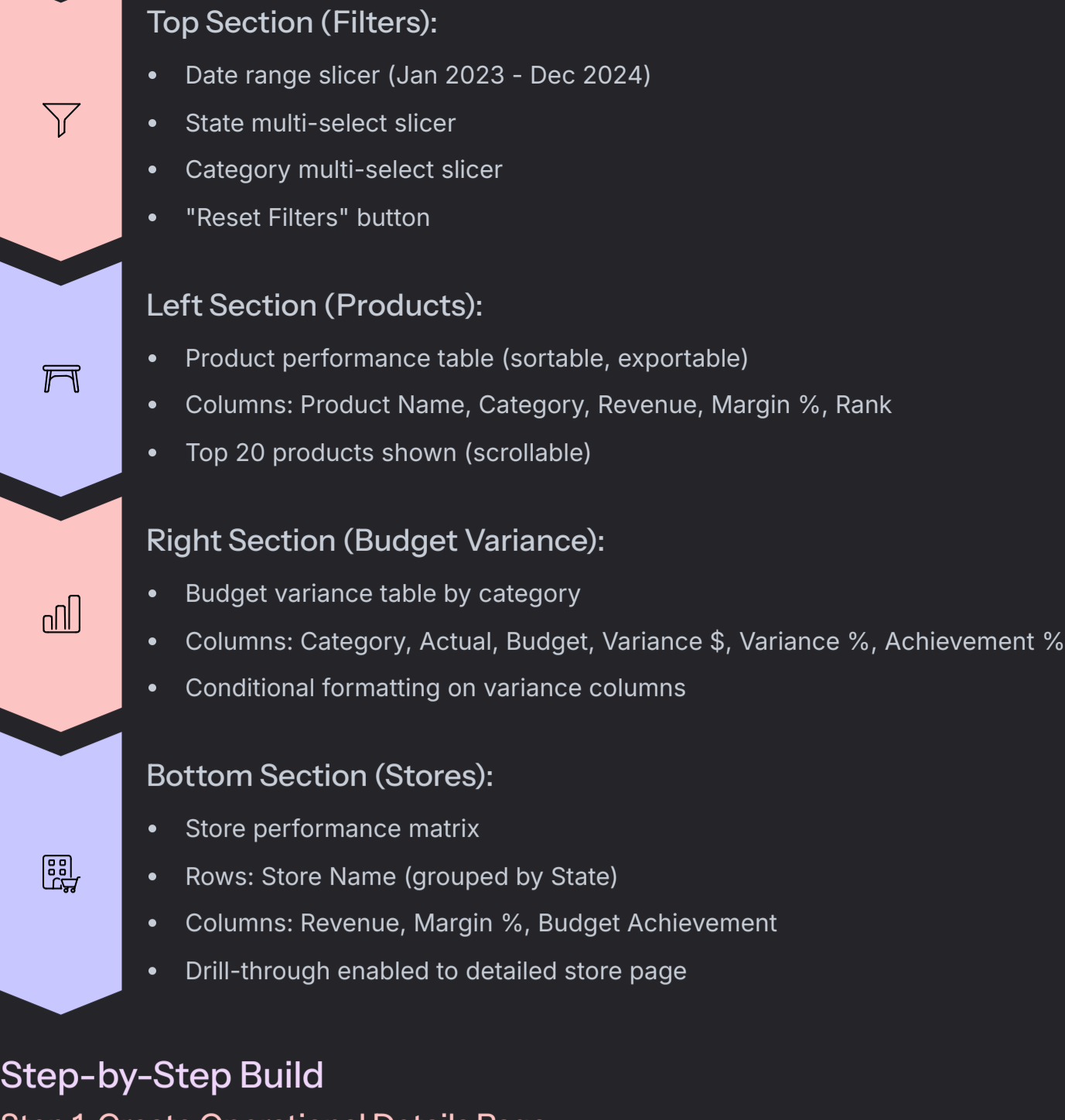
- Headers: Segoe UI Bold, 18-20pt
- KPIs: Segoe UI Light, 36-48pt
- Body text: Segoe UI Regular, 10-12pt

Logo:

- Place in top-left corner, 60x60 pixels
- Link logo to Page 1 (Executive Summary)

PAGE 2: OPERATIONAL DETAILS

Page Layout Overview



Step-by-Step Build

Step 1: Create Operational Details Page

What to do:

- At bottom, click + **Add page** button
- Rename page: Operational Details
- Set canvas background: #F5F5F5 (same as Page 1)

Step 2: Create Date Range Slicer

What to do:

- Click **Slicer** visual
- Position top-left of canvas
- Size: Width = 300px, Height = 100px
- Configure:
 - Field: DimDate[Date]
 - Slicer type: **Between** (range selector)
- Format:
 - Title:** "Date Range"
 - Slicer settings** → **Style:** Between
 - Background:** White
 - Border:** Light gray, 1px

Why it matters: Allows users to focus analysis on specific time periods (e.g., Q3 FY2024).

How to validate: Slicer shows two date pickers (From and To) with calendar dropdowns.

Step 3: Create State Multi-Select Slicer

What to do:

- Copy date slicer
- Position to right of date slicer
- Replace field: DimStore[State]
- Slicer type: **List**
- Enable **Multi-select with Ctrl** (Format → Selection → Multi-select with Ctrl: On)
- Update title: "State"

How to validate: Slicer shows list of states (NSW, VIC, QLD, WA, SA, TAS, NT, ACT). Ctrl+Click selects multiple.

Step 4: Create Category Multi-Select Slicer

What to do:

- Copy state slicer
- Position to right of state slicer
- Replace field: DimProduct[Category]
- Update title: "Product Category"

How to validate: Slicer shows categories (Fresh Produce, Dairy & Eggs, Meat & Seafood, etc.).

Step 5: Create Product Performance Table

What to do:

- Click **Table** visual
- Position below slicers, left 50% of canvas
- Size: Width = 550px, Height = 550px
- Add columns (in order):
 - DimProduct[ProductName]
 - DimProduct[Category]
 - [Total Revenue]
 - [Gross Margin %]
 - [Product Rank]
- Add Top N filter:
 - Visual filters → ProductName → Top 20 by [Total Revenue]
- Format visual:
 - Title:** "Product Performance (Top 20)"
 - Grid** → **Row headers:** Bold
 - Values** → **Alignment:**
 - ProductName: Left
 - Numbers: Right
 - Values** → **Conditional formatting:**
 - Gross Margin %: Data bars (green = high, red = low)
 - Enable export:** Format → Export → Allow export: On
 - Background:** White
 - Border:** Light gray, 1px

Why it matters: Detailed product analysis. Users can sort by any column, export to Excel for further analysis.

How to validate: Table shows 20 products with formatted values. Click column headers to sort. Right-click table → Export data works.

Step 6: Create Budget Variance Table

What to do:

- Click **Table** visual
- Position top-right, next to product table
- Size: Width = 550px, Height = 300px
- Add columns:
 - DimProduct[Category]
 - [Total Revenue] (rename column to "Actual")
 - [Budget Revenue] (rename to "Budget")
 - [Variance \$]
 - [Variance %]
 - [Budget Achievement %]
- Format visual:
 - Title:** "Budget Variance by Category"
 - Conditional formatting:**
 - Variance \$: Green (positive), Red (negative)
 - Variance %: Green (>5%), Red (<-5%)
 - Budget Achievement %: Green (>100%), Orange (95-100%), Red (<95%)
 - Values** → **Currency:** \$ format
 - Background:** White

Why it matters: Shows which categories are over/under budget. Conditional colors highlight problems instantly.

How to validate: Table shows 8 categories with variance columns color-coded.

Step 7: Create Store Performance Matrix

What to do:

- Click **Matrix** visual
- Position below budget variance table
- Size: Width = 550px, Height = 550px
- Configure:
 - Rows:** DimStore[State] (outer), DimStore[StoreName] (inner)
 - Values:** [Total Revenue], [Gross Margin %], [Budget Achievement %]
- Format visual:
 - Title:** "Store Performance by State"
 - Row subtotals:** Show (state-level totals)
 - Column headers:** Bold
 - Values** → **Conditional formatting:**
 - Gross Margin %: Data bars (green)
 - Budget Achievement %: Icons (✓ green if >100%, 🟡 orange if 95-100%, ✗ red if <95%)
 - Enable expand/collapse:** Format → Row headers → +/- icons: On
 - Background:** White

Why it matters: Hierarchical view of stores grouped by state. Users can expand/collapse states to focus analysis.

How to validate: Matrix shows states with expandable +/- icons. Clicking + expands to show stores within that state.

Step 8: Add "Reset Filters" Button

What to do:

- Insert **Button** (Insert ribbon → Buttons → Blank)
- Position next to slicers (top-right area)
- Size: Width = 150px, Height = 40px
- Configure:
 - Button text:** "Reset Filters"
 - Action:** Bookmark
 - Bookmark:** Create a bookmark with all slicers cleared (see next step)
- Format button:
 - Fill:** #2D5016 (Fresh Green)
 - Text:** White, Segoe UI Bold, 12pt
 - Border:** None
 - Hover effect:** Fill = #1E3A0E (darker green)

Bookmark creation:

- Clear all slicer selections
- View ribbon → Bookmarks → Add bookmark
- Rename bookmark: "Clear All Filters"
- Edit bookmark (right-click → Data: Current page)
- Go back to button → Action → Bookmark → Select "Clear All Filters"

Why it matters: One-click reset saves users time vs. manually clearing each slicer.

How to validate: Select filters, click "Reset Filters" button, all slicers clear.

Step 9: Create Drill-Through Page (Store Details)

What to do:

- Add new page: Store Details
- Set canvas background: #F5F5F5
- Configure drill-through:
 - Visualizations pane → **Drill through** section
 - Add field: DimStore[StoreName]
- Add visuals:
 - Card:** Store Name (large, top-center)
 - Cards:** Total Revenue, Gross Margin %, Budget Achievement (row below)
 - Line chart:** Monthly revenue trend (12 months)
 - Table:** Top 10 products sold at this store
 - Bar chart:** Customer loyalty tier distribution
- Add back button:
 - Insert → Buttons → Back
 - Position: Top-left
 - Action: Back (returns to source page)

Why it matters: Drill-through enables deep-dive analysis. Right-click any store in the matrix → Drill through → Store Details.

How to validate: From Operational Details page, right-click a store → Drill through → Store Details. Page shows filtered data for that store only. Back button returns to Operational Details.