**Report Dashboard**

**1. KPI Card Design & Formatting**

* Visualize key business metrics (e.g., Total Sales, Profit Margin, Total Orders, Profit YoY).
* Format cards with:
  + Custom font styles, sizes, colors.
  + Display unit settings (e.g., Thousands, Percent).
  + Visual enhancements: glow, shadow, background, callouts.

**2. Image Integration in KPI Cards**

* Add contextual icons/images to KPI cards.
* Position and fit images within card visuals.
* Adjust padding and sizing for visual balance.

**3. Bar & Column Chart Visualization**

* Create clustered bar/column charts for:
  + Total Orders by Country.
  + Orders by Year and Quarter.
* Format charts with:
  + Custom axes, titles, spacing.
  + Conditional formatting (e.g., year-specific color differences).
  + Gridline customization.

**4. Custom Data Labels and Overlays**

* Overlay custom labels (e.g., country or customer type) over bars.
* Use secondary series to place category names visually.

**5. Top N Analysis**

* Implement Top N filters (e.g., Top 3 Customer Types by Revenue).
* Use measures and filters to dynamically rank data.

**6. Donut Chart Visualization**

* Visualize revenue by discount band using donut charts.
* Format labels to show category + percentage.

**7. Slicer Customization (Button Style)**

* Build interactive slicers (Product-level filtering).
* Configure:
  + Button shapes (e.g., rounded rectangles).
  + States (default, hover, selected, pressed).
  + Accent bars to show selected items.
  + Fonts, colors, layout (rows/columns).

**8. Dynamic Interactivity**

* Apply slicers to filter all related visuals.
* Ensure proper interaction among visuals (KPI, charts, labels).

**🔸 KPIs to Practice**

1. **Total Orders**
2. **Total Sales / Revenue**
3. **Profit Margin**
4. **Profit Year-on-Year Change**
5. **Orders by Country**
6. **Orders by Year & Quarter**
7. **Top 3 Customer Types by Revenue**
8. **Revenue by Discount Band**

**Profitability Analysis Dashboard**

**1. Dashboard Layout & Setup**

* Duplicate the existing report page and rename it to "Profitability Analysis".
* Remove irrelevant slicers and visuals.
* Resize and realign cards and visuals for better layout.

**2. KPI Card Setup**

* Replace "Total Revenue" with **Total Profit**.
* Add the following KPIs to the card:
  + Total Profit
  + Profit Year on Year
  + Profit Margin (Current Year)
  + Profit Margin (Previous Year)
* Format KPIs:
  + Percentages for margins and YoY % changes.
  + Thousands/millions format for profit values.

**3. Measures to Create**

* Profit Change YoY:  
  Total Profit (This Year) - Total Profit (Last Year)
* Profit PM (Previous Month):  
  Using CALCULATE() with DATEADD(-1, MONTH)
* Profit Change MoM:  
  Total Profit - Profit PM
* Profit Change MoM %:  
  DIVIDE(Profit Change MoM, Profit PM)

**4. Slicer (Product Selector)**

* Add **Product Image Button Slicer**:
  + Field: Product
  + Image URL from Product table
* Slicer Layout:
  + 1 column, 4 rows
  + Paginated scroll for overflow
* Slicer Formatting:
  + Hover effects
  + Selected button highlights
  + Motion effect by resizing callout values/images

**5. Profitability Trend Chart**

* Create a line or column chart for:
  + X-axis: Month Name, Year
  + Y-axis: Total Profit
* Format to use 3-letter month names.

**6. Table Visualization**

* Profitability by:
  + Product
  + Customer Type
* Allows product-level profitability insights per customer type.

**7. Profit Contribution by Product Category**

* Use a pie/donut/bar chart.
* Highlight top-contributing categories (e.g., "Podcasting Devices" contributes ~50%).

**8. Reference Label Card**

* Create card visual for:
  + **YoY Change in Profit (Amount)**
  + Reference Labels:
    - MoM Change (Amount)
    - MoM Change (Percentage)
* Format:
  + Rounded rectangle, transparent background
  + Reference label customization
  + Conditional formatting (positive = green, negative = red)

**9. Card and Label Customizations**

* Adjust alignment, fonts, colors, spacing.
* Apply conditional formatting to:
  + Reference label values (based on thresholds)
  + Label titles

**10. Finishing Touches**

* Add titles using text boxes (e.g., “Profit Trend”).
* Format borders, dividers, layouts (e.g., tabular, row/column, center alignment).
* Apply final visual tuning (e.g., spacing, overflow handling).

**KPIs to Consider**

| **KPI Name** | **Description** |
| --- | --- |
| **Total Profit** | Overall profit for selected filters/time |
| **Profit YoY (Amount)** | Change in profit compared to the previous year |
| **Profit YoY (%)** | % change in profit YoY |
| **Profit Margin (Current)** | Profit Margin = Profit / Revenue (current year) |
| **Profit Margin (Previous)** | Profit Margin for previous year |
| **Profit MoM (Amount)** | Change in profit from previous month |
| **Profit MoM (%)** | % change in profit MoM |
| **Profitability Trend** | Monthly profit over two years |
| **Profit by Product & Customer** | Profit segmented by product and customer type |
| **Profit Contribution by Category** | Contribution of each product category to total profit |

**Product Performance & Profitability Dashboard**

**🧱 1. Page Setup & Layout**

* Duplicate and rename base report page.
* Remove placeholders, clean up visuals.
* Add title and header (with optional logo).
* Use shapes to create visual containers for layout.
* Apply consistent formatting: rounded corners, padding, shadows.

**🎛️ 2. Slicers and Filters**

* **Product Slicer with Dynamic Image Icons:**
  + Horizontal layout (1 row, 4 columns) with overflow.
  + Add checkmark icon for selected state using transparent background.
  + Image measure using Dropbox/Google Drive links (with correct URL format).
* **Year Slicer:**
  + For comparing metrics across years (e.g. 2021 vs 2022).

**📊 3. Key Visualizations**

* **Best Selling Products (Bar Chart):**
  + Total orders by product.
  + Sorted and includes average reference line.
* **Top 4 Most Profitable Customers:**
  + Based on selected product.
* **Orders by Product Category:**
  + Visualizes demand drivers per category.
* **Profitability Trend (Line Chart):**
  + Monthly profit comparison by year (e.g., 2021 vs 2022).
  + Dashed line for prior year, solid for current year.
* **Summary KPI Cards:**
  + Total Sales, Orders, and Profit.
  + Custom label text: “Versus Prior”.
  + Display units in thousands; no decimal places.
  + Color-coded labels and dividers.

**🧩 4. Report Page Tooltip**

* Create a custom tooltip page:
  + Canvas: small size (e.g., 450×290), type = “Tooltip”.
  + Add KPIs for Total Revenue, Orders, Profit (Current vs Prior Year).
  + Include **Product Name** and **Description** at the top.
  + Format colors, paddings, and sizes.
* Apply tooltip to:
  + Product slicer buttons.
  + Relevant charts (e.g., Best Selling Products).

**🔗 5. Edit Visual Interactions**

* Use **Edit Interactions** to:
  + Prevent slicer from filtering visuals where not intended (e.g., donut charts).
  + Maintain consistent cross-filtering logic.
* Ensure Year slicer updates visuals with available year-over-year data.
* Adjust legends to use **line and markers** for clarity on year comparisons.

**🎨 6. Final Polishing**

* Resize and align all elements cleanly.
* Turn off x-axis titles, legend styling adjustments.
* Check tooltip functionality on hover.
* Review all visuals for consistency, responsiveness, and clarity.
* Validate all interactions and slicers behave as expected.