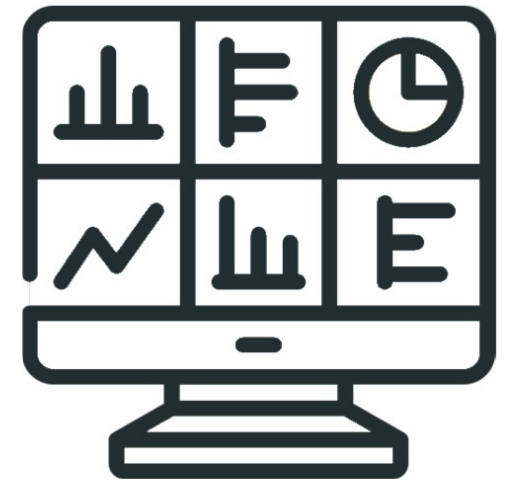# Developing Reports

Add Visuals and Report Elements

- Commonly, report pages are created using a combination of **visuals** and **report elements**

- **Visuals** are any object added to a report page that requires (at least) one or more *fields* from the *model*
  - Types include: *visuals, tables, slicers*

- **Report Elements** are any object added to a report page that <u>do not</u> require any *fields* from the *model*
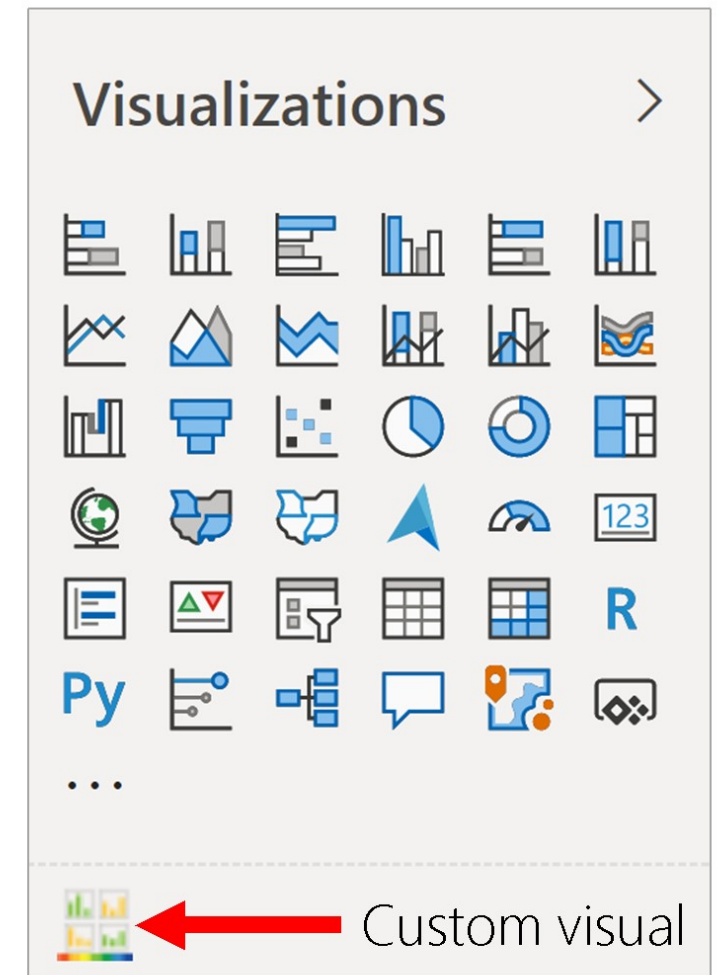 - Types include: *text boxes, images, shapes, buttons*[1]

1: Buttons will be covered in **Module 2**

Developing Reports

- **Visualizations** in Power BI contain multiple types of objects – the *primary categories* are:
  - **Charts/Graphs:**
    - Column, Bar, Line, Combo, Scatter, Waterfall, Funnel, Treemap
  - **AI Visuals:**
    - Key influencers, Decomposition tree, Smart narrative, Q&A[1]
  - **Tables:**
    - Table, Matrix

  - **Cards:**
    - Card, Multi row card, KPI, Gauge
  - **Maps:**
    - Map, Filled map, shape map, ArcGIS map, Azure map
  - **Filter data:**
    - Slicer
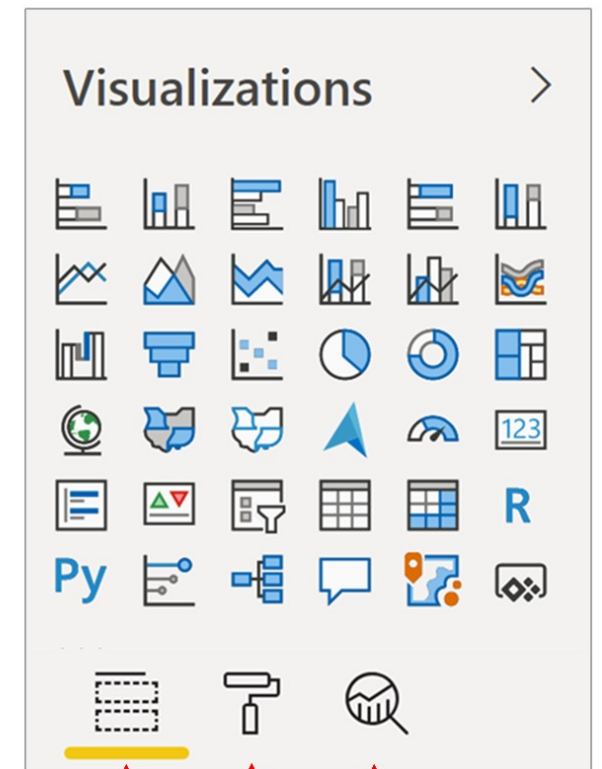 - **Custom visuals:**
    - From file or marketplace

1: Added from the Insert ribbon

Custom visual

Developing Reports

- Three sub-panes exist for configuring visualizations:
  - **Fields pane** – displays *wells* (inputs) to *add*, *remove*, or *modify* fields in the visual
  - **Format pane** – displays *formatting* and *settings* for a visual
    - Commonly, formatting is configured *after* all visuals and report elements have been added to the report
  - **Analytics pane** – displays available *analytics lines* that can be added to a visual
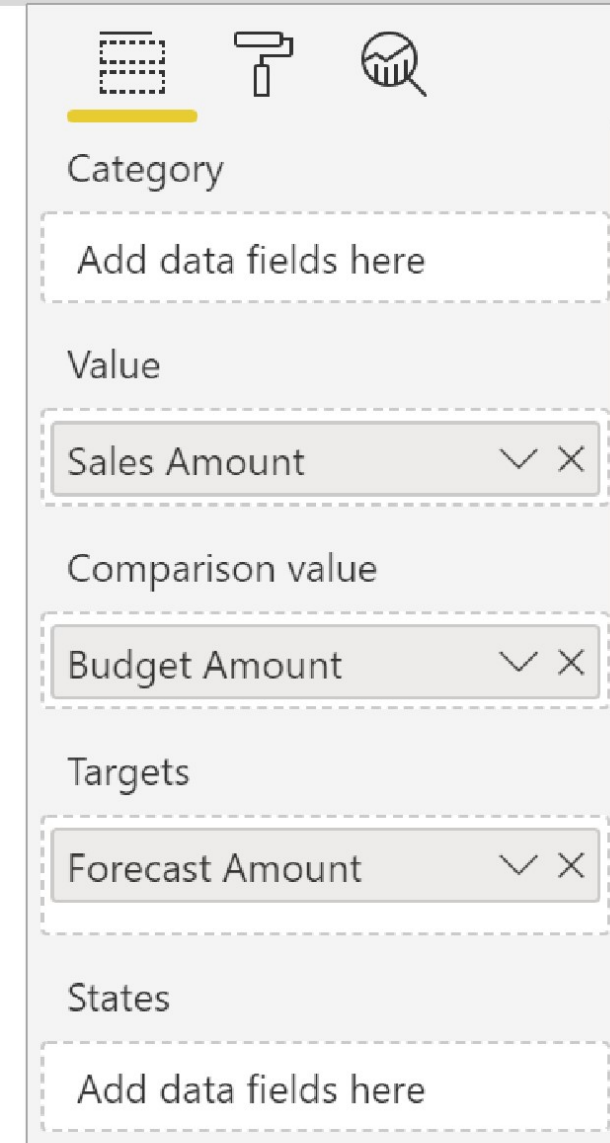

Fields pane

Format pane

Analytics pane

Developing Reports

- The **Fields** pane displays a series of *wells* for a visual
  - Displayed wells will change depending on the selected visual
- Commonly, fields added to a well either display *categorical data* – or *aggregate* the data
  - Fields can be added to the same well more than once
- **Field configurations:**
  - Rename
  - Select aggregation
  - Show value as
  - Move to (other well)
  - Remove field
  - Reorder

Category

Add data fields here

Value

Sales Amount   ∨ ✕

Comparison value

Budget Amount   ∨ ✕
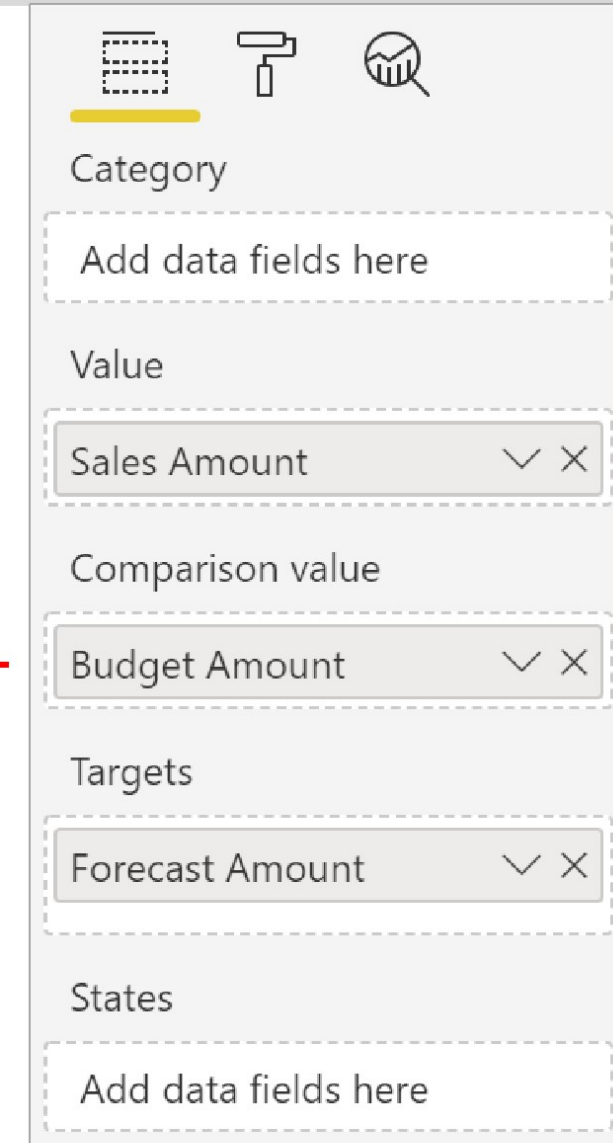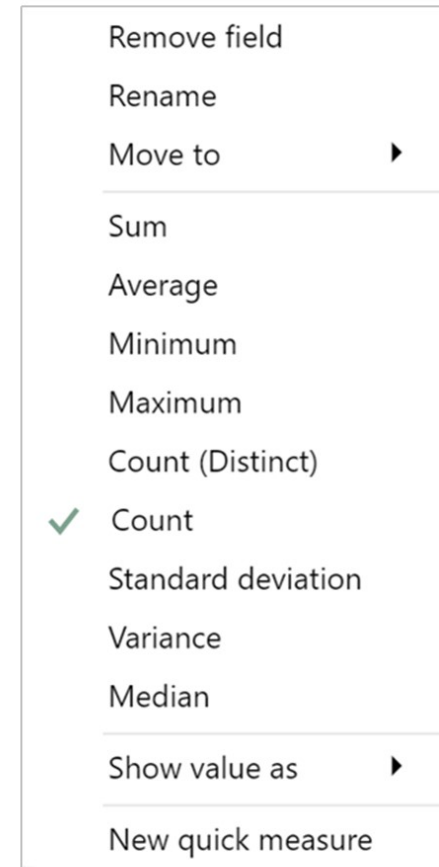
Targets

Forecast Amount   ∨ ✕

States

Add data fields here

Developing Reports

- **Supported field *aggregations* include:**
  - Sum
  - Average
  - Minimum
  - Maximum
  - Count (Distinct)
  - Count
  - Standard deviation
  - Variance
  - Median
- **Fields can also be *shown as*:**
  - Percentage of *grand total*
  - Percentage of *row total*
  - Percentage of *column total*

Developing Reports

- The **Analytics** pane adds *dynamic reference* lines – which provides focus on important trends or insights

- **Line types include:**
  - Trend
  - Constant
  - Minimum
  - Maximum
  - Average

  - Median
  - Percentile
  - Forecast[1]
  - Symmetry shading[2]

1: Only available for the **Line Chart**
2: Only available for the **Scatter Plot**

Search

∨ Trend line

∨ Constant line

∨ Min line

∨ Max line

∨ Average line

∨ Median line

∨ Percentile line

Developing Reports

Text Box	Button	Shape	Image

- **Report Elements in Power BI include:**
  - **Text Box** – Rich text box
  - **Button** – User interactive button that can be assigned a *bookmark* or *URL link*
  - **Shape** – Inserts a rectangle, oval, line, triangle, arrow
  - **Image** – Imports a local image file