Power BI Getting Started for FP&A

What is Power BI?

Power BI is now the [undisputed market leader](#) in business intelligence (BI). It is one of the citizen tools in Microsoft Power Platform Offerings.

Primary layers in Power BI

- **Get Data - Power Query ETL (Extract, Transform and Load)**
  - Connect to 100+ [sources](#) to bring and shape your data
- **Data Modelling (Relationships) & Formula (DAX)**
  - Build relationship between tables, no more VLOOKUP's or index/match
  - Excel-like formula capable of doing amazing things like time intelligence
- **Visualizations**
  - Dynamic canvas to develop interactive and dynamic presentation
- **Sharing (Web, Teams, Mobile)**
  - Designed for sharing on all platforms where you have internet
  - Dynamic security means you build one report for all regions and leadership
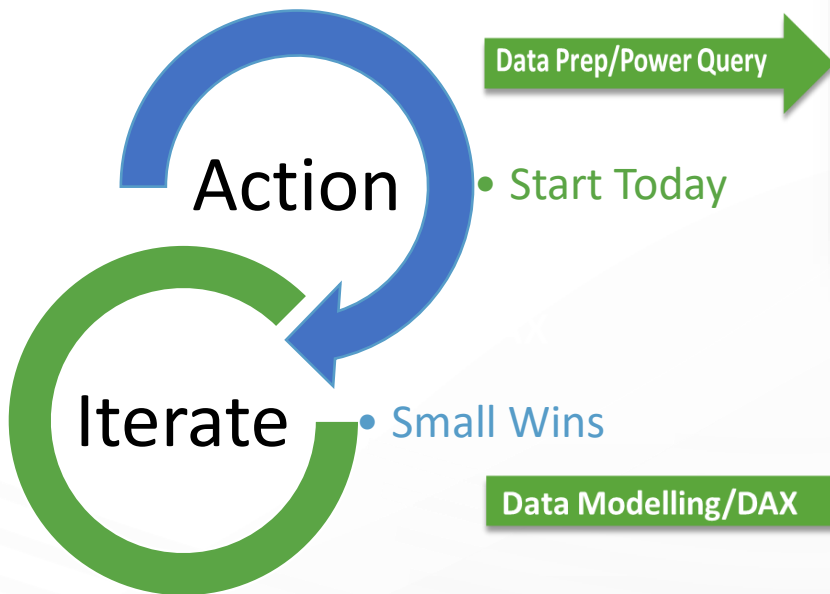 - One version of Truth

Is not *Just a Visualization Tool*

User-friendly platform that enables stakeholders to self-serve reports and dashboards that is built by analysts and citizen developers

Fundamentals of Success

Action
• Start Today

Iterate
• Small Wins

Data Prep/Power Query

Activity	Beginner	Intermediate	Advanced
Data source	**Manual** The source data may be manually compiled by the author, usually for testing purposes.	**Connected to the source system** The source data is queried from the proper source system.	**Efficiency and optimization** Queries are optimized for efficiency, such as query folding when querying the source system.
Data refresh	**Manual** The dataset is manually refreshed in Power BI Desktop by the dataset author.	**Scheduled** The dataset is scheduled in the Power BI Service, so it refreshes automatically.	**Incremental refresh** The dataset refresh operation is optimized for incremental data refresh.

Data Modelling/DAX

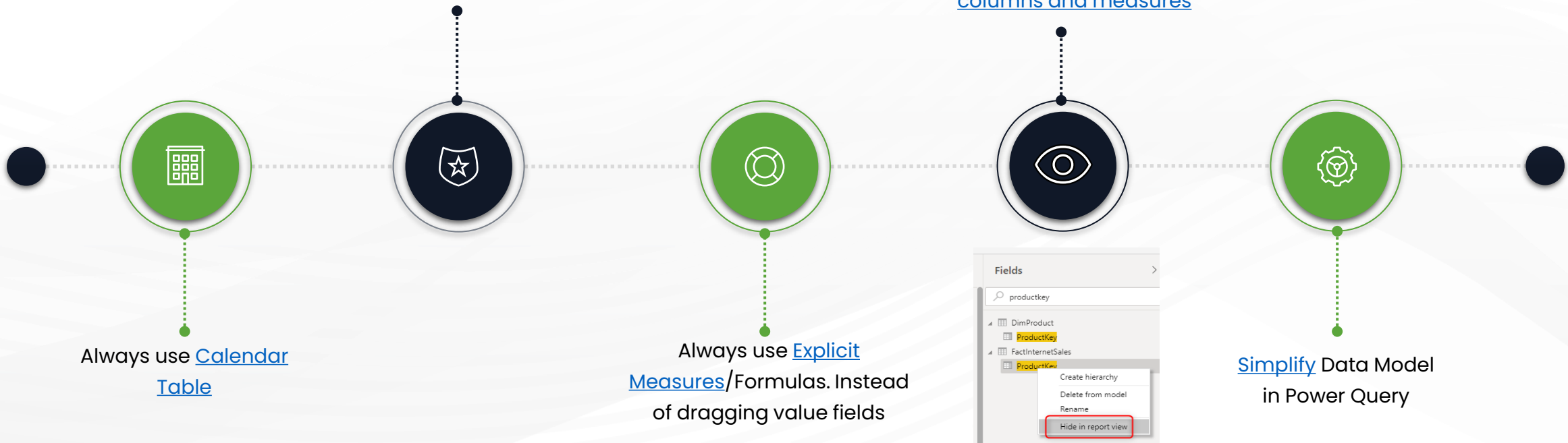| Activity	Beginner	Intermediate	Advanced
Table Structure	**Flat Table** Remarkably similar to PivotTable Data in Excel, where you used lookups in the source (Most likely Excel or current source).	**Dimensional Relationship** Fact-Dimension, Star Schema, Calendar Table.	**Optimized Storage & Relationship** Wide and Short Dimension Table & Skinny and long Fact Table Read More
DAX	**Basic Measures** Get started with drag and drop, but highly recommend writing Explicit Measures. Read More Sales = SUM('Invoice Data'[Revenue])	**Calculate/ Time Intelligence** Function: Calculate/Filter, Time Intelligence (DateAdd, DatesYTD) Introduction to X Functions, Filter Context etc.	**Incremental refresh** DAX/Measure Optimization, unlocking the power of Calculate/Filter/Iteration/Table Functions, Composite Models External Tools 1) DAX Studio 2) Tabular Editor 3) Bravo

Data Visualization

Activity	Beginner	Intermediate	Advanced
Technical	**Follow K.I.S.S method** Simple Tables/Matrix and Charts. Let the interactivity of Power BI along with Drill Down do the magic, just getting what you have replicated.	**Move beyond The Grid** Drill Through, Information canvas, attention direction flow, information positioning, color contrast, conditional formatting.	**Sprinkle on Top/Insight** Bookmarks, Navigation, advanced custom visuals (Inforiver, Zebra BI). Every Custom Visual has its own learning curve. Being able to synthesize information into simple nuggets. IBCS

Full Article Link – **A detailed step-by-step guide to mastering Power BI**

Top Modeling Tips

DataCrafters.io
your transformation partner
MODEL CITIZN

Always use Star Schema
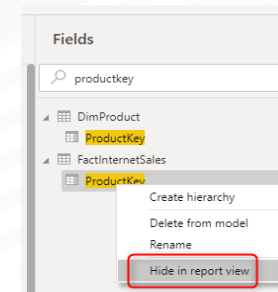
Hide all non-relevant columns and measures

Always use Calendar Table

Always use Explicit Measures/Formulas. Instead of dragging value fields

Simplify Data Model in Power Query

Top Visualization Tips

KISS = Keep It Simple S......

Less is more
Learn to embrace the empty space

Color Coded KPI
Quick comprehension and faster action

Tooltips
Pack relevant mini dashboard without cluttering

Chart - Right on the money
Select the proper viz to tell the story

Click to see live

Human labels
Use short & meaningful names

Drilldown & Drill Through
Allow users to get to the root of the problem

Navigation Buttons
Homepage to navigate the analysis

Themes
Organizational color palettes with backgrounds

Click to see live

Data Analysis Expression (DAX 101)

Description – describes the DAX in the below Total Revenue
Syntax – formula structure with the *DAX function* upfront uppercase and p*arameters and filter contexts* – bits in the middle
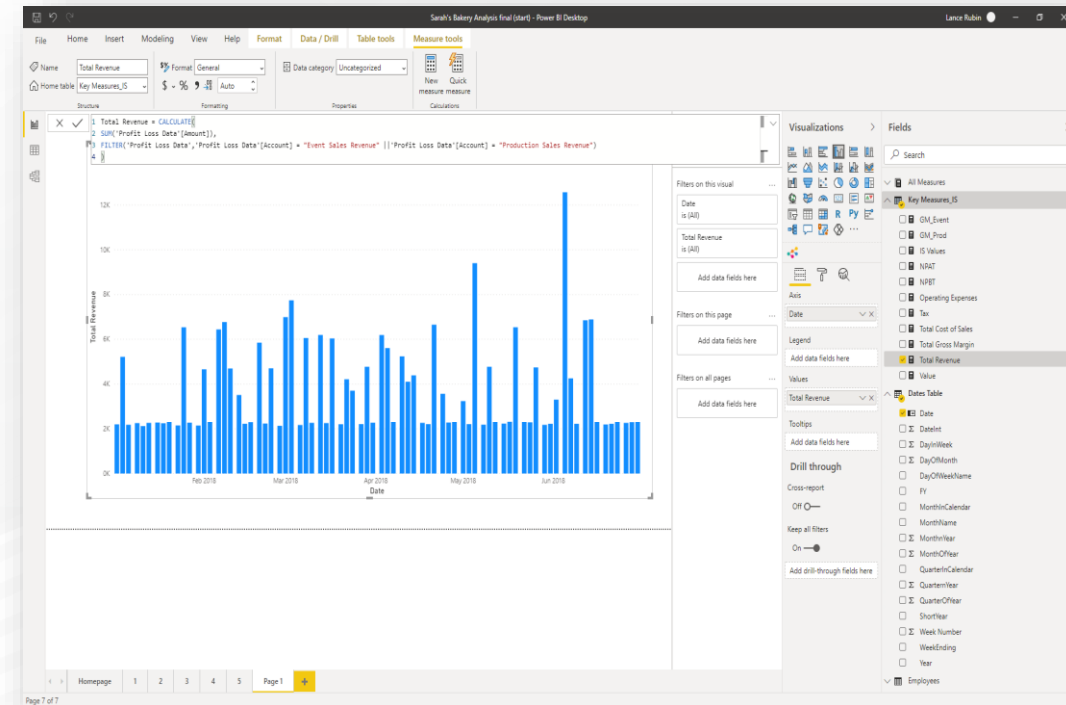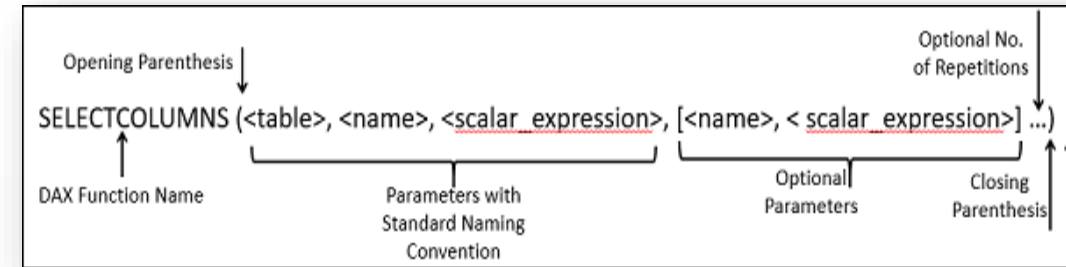
Total Revenue =
CALCULATE (
   SUM ('Profit Loss Data'[Amount]),
   FILTER (
     'Profit Loss Data',
     'Profit Loss Data'[Account] = "Event Sales Revenue"
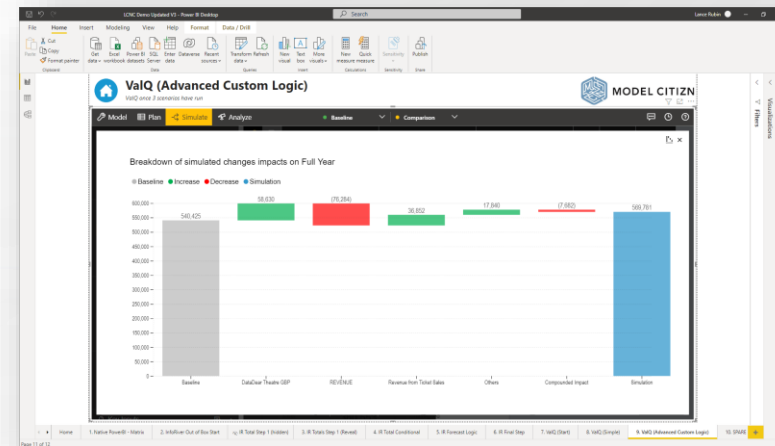 || 'Profit Loss Data'[Account] = "Production Sales Revenue"
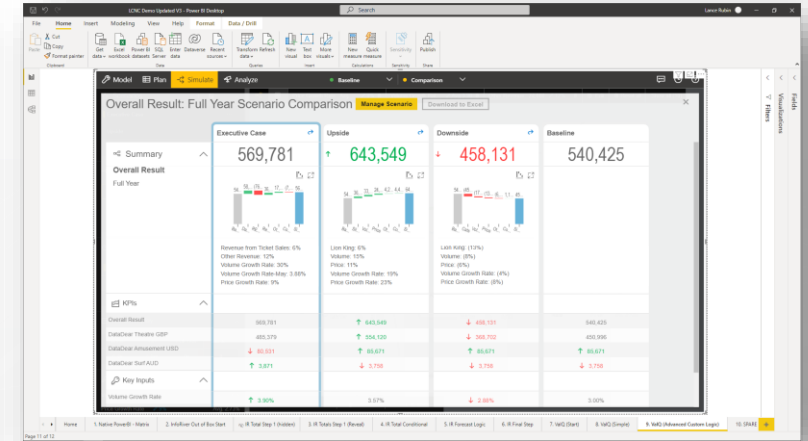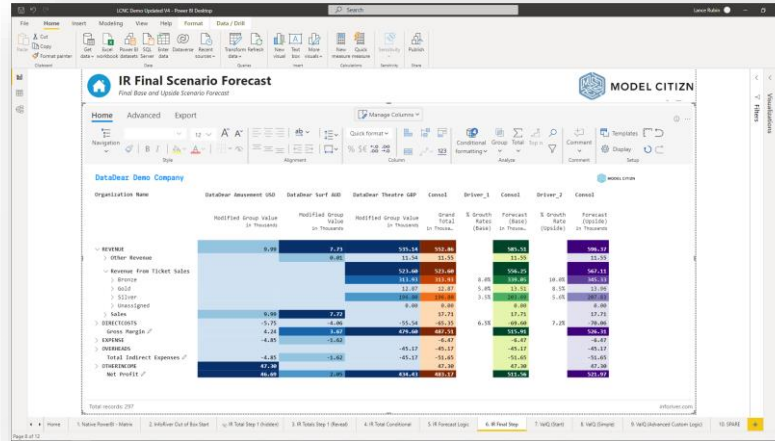   )
)

In English this means:

We are calculating **Total Revenue** on the basis of :
- **SUM** of all the **Profit Loss Data** with a
- particular table and data reference being the **"Amount"** column,
- particular **Filter** context which is the **"Accounts"** namely where these are equal to **"Event Sales Revenue"** and **"Product Sales Revenue"**

Additional Resources

YouTube Channels:

Websites: **Books:**

For Power BI PL-300 Certifications Free Resource flow this article: [Power BI Free Learning Path](#)
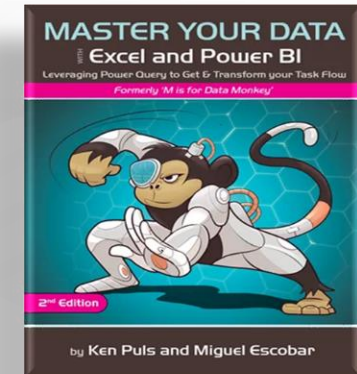
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