Introduction to Power BI

INTRODUCTION TO POWER BI

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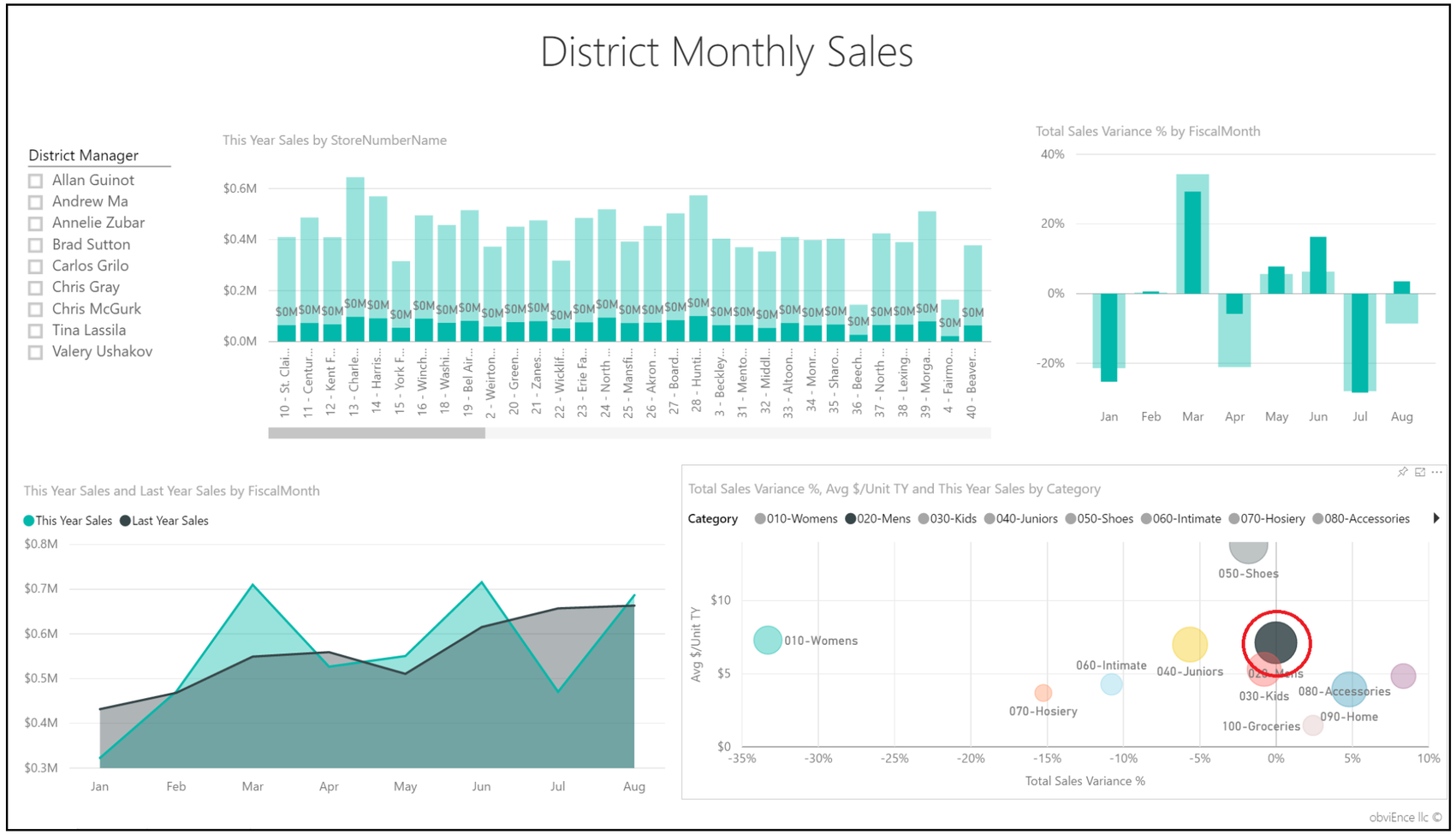
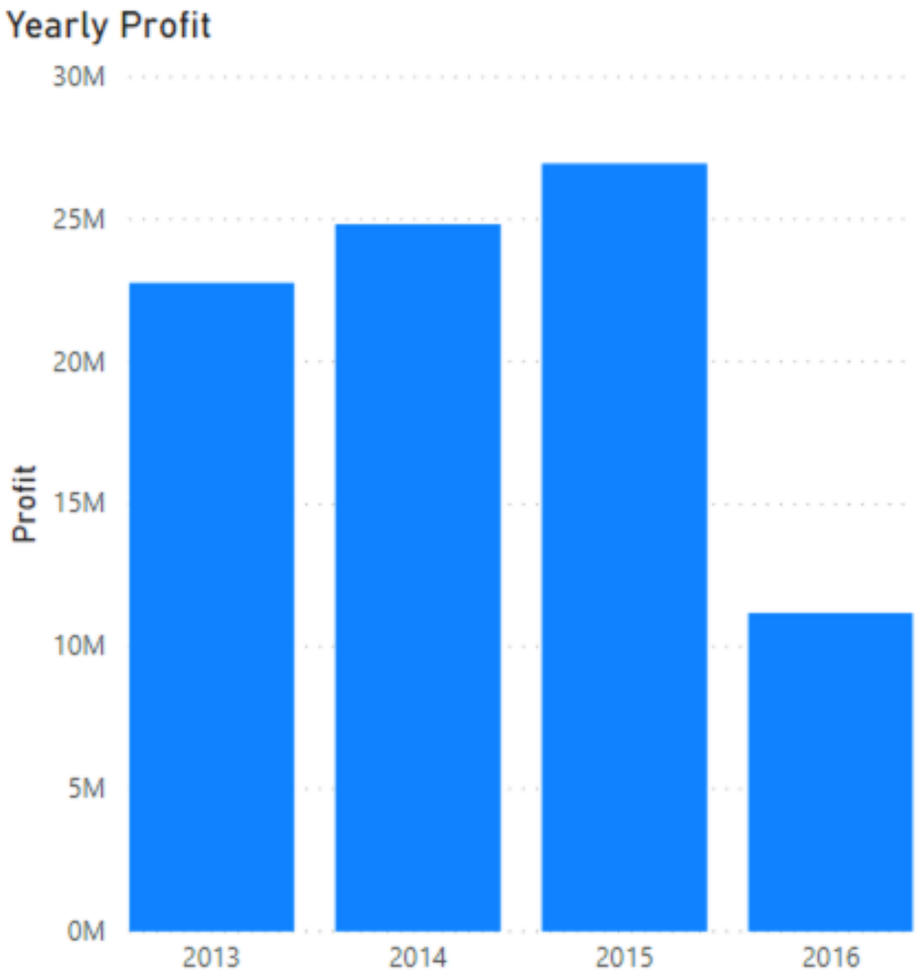
datacamp

What is Power BI?



[1] https://docs.microsoft.com/en-us/power-bi/create-reports/sample-retail-analysis

Data Visualization in Power BI



Total Excluding Tax	Tax Amount	Profit	Total Including Tax
129	19.35	67.5	148.35
258	38.7	135	296.7
301	45.15	157.5	346.15
172	25.8	90	197.8
86	12.9	45	98.9
387	58.05	202.5	445.05
387	58.05	202.5	445.05
387	58.05	202.5	445.05
344	51.6	180	395.6
344	51.6	180	395.6
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258	38.7	135	296.7
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Why Power BI?

- Leading BI tool according to Gartner
- Over 97% of Fortune 500 companies use Power BI
- Over 6 million customers

Figure 1: Magic Quadrant for Analytics and Business Intelligence Platforms

Source: Gartner (February 2021)

Power BI Components

Power BI Desktop

- Desktop version
- Data analysis and report creation tool
- Includes the Power Query Editor
- 100% free

Power BI service

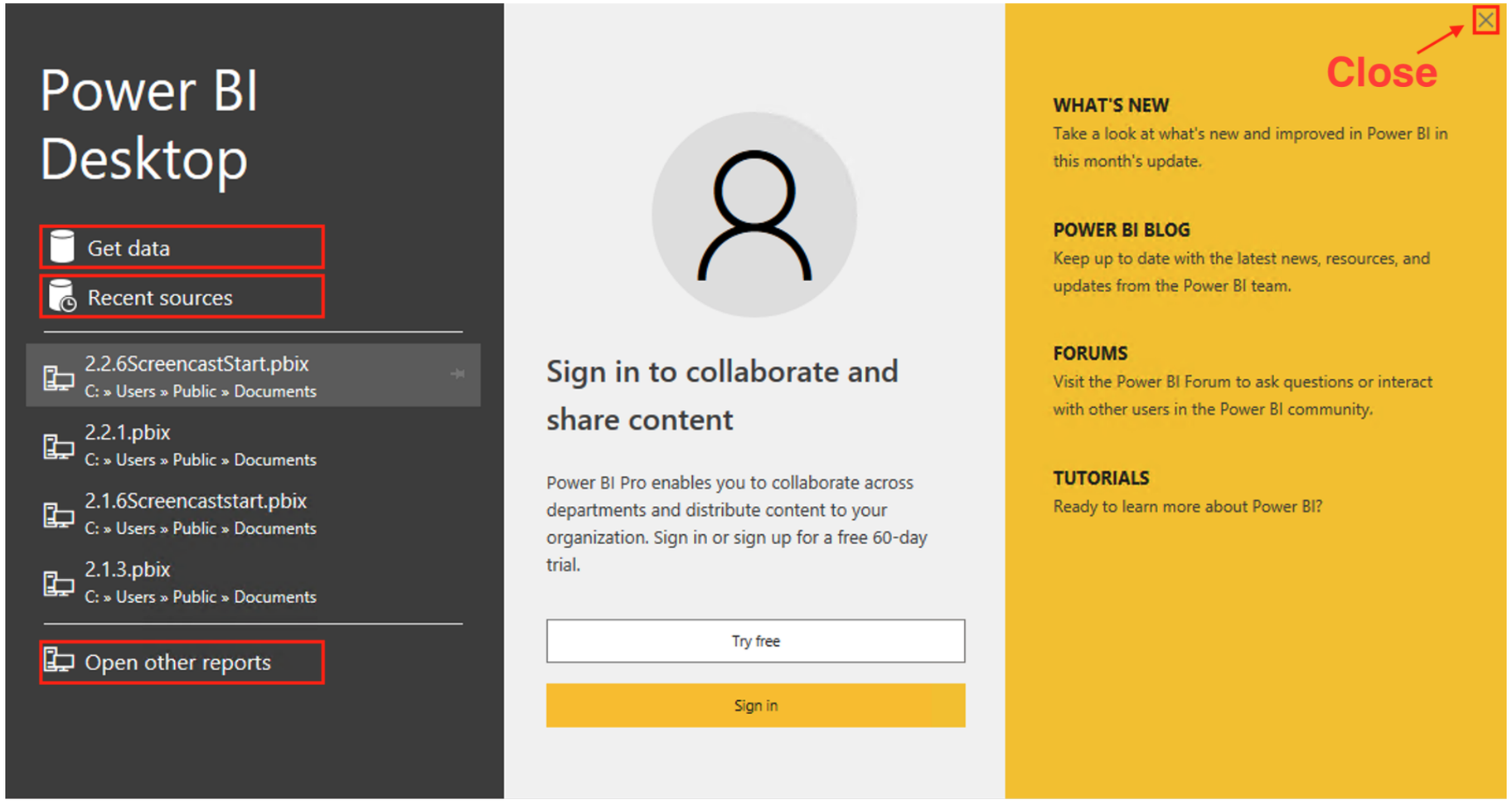
- Cloud-based version
- Light report editing
- Share and distribute reports

Power BI Pro

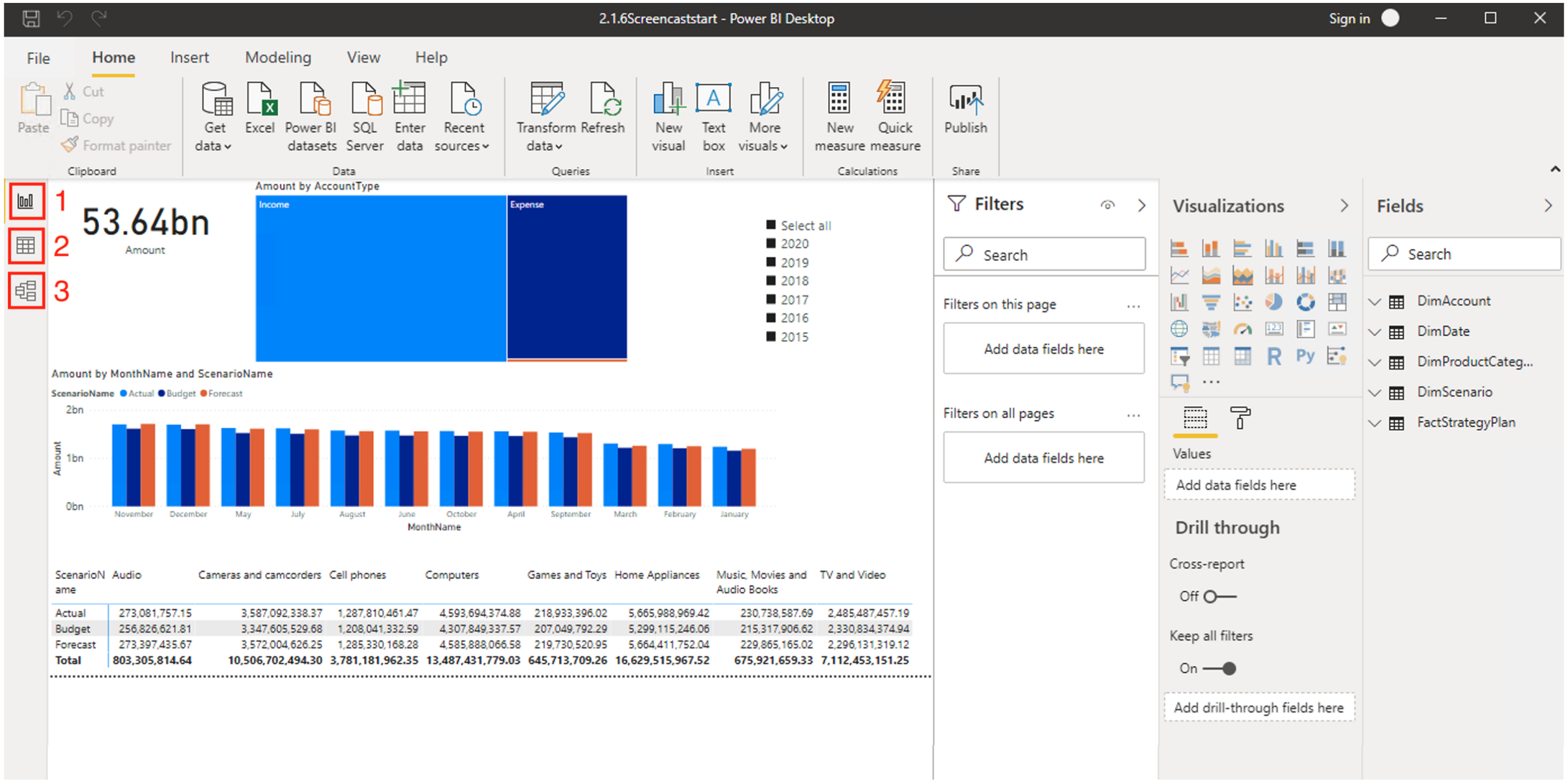
Exclusive features:

- Publish and share across the Power BI cloud platform
- Mobile app
- Collaborate with other Power BI users

Power BI Interface

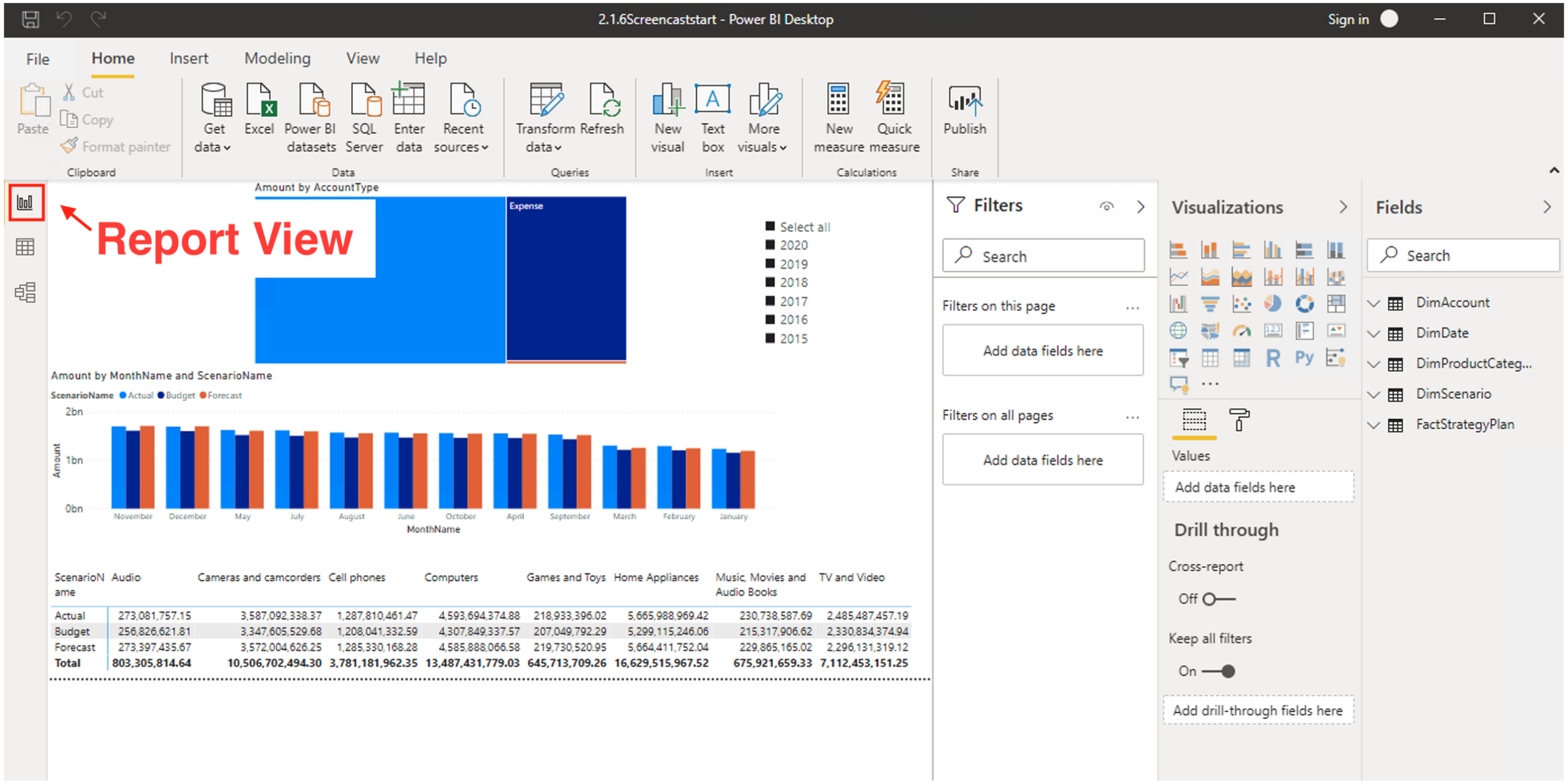


Power BI Interface - Three views



ScenarioName	Audio	Cameras and camcorders	Cell phones	Computers	Games and Toys	Home Appliances	Music, Movies and Audio Books	TV and Video
Actual	273,081,757.15	3,587,092,338.37	1,287,810,461.47	4,593,694,374.88	218,933,396.02	5,665,988,969.42	230,738,587.69	2,485,487,457.19
Budget	256,826,621.81	3,347,605,529.68	1,208,041,332.59	4,307,849,337.57	207,049,792.29	5,299,115,246.06	215,317,906.62	2,330,834,374.94
Forecast	273,397,435.67	3,572,004,626.25	1,285,330,168.28	4,585,888,066.58	219,730,520.95	5,664,411,752.04	229,865,165.02	2,296,131,319.12
Total	**803,305,814.64**	**10,506,702,494.30**	**3,781,181,962.35**	**13,487,431,779.03**	**645,713,709.26**	**16,629,515,967.52**	**675,921,659.33**	**7,112,453,151.25**

Power BI Interface - Report View



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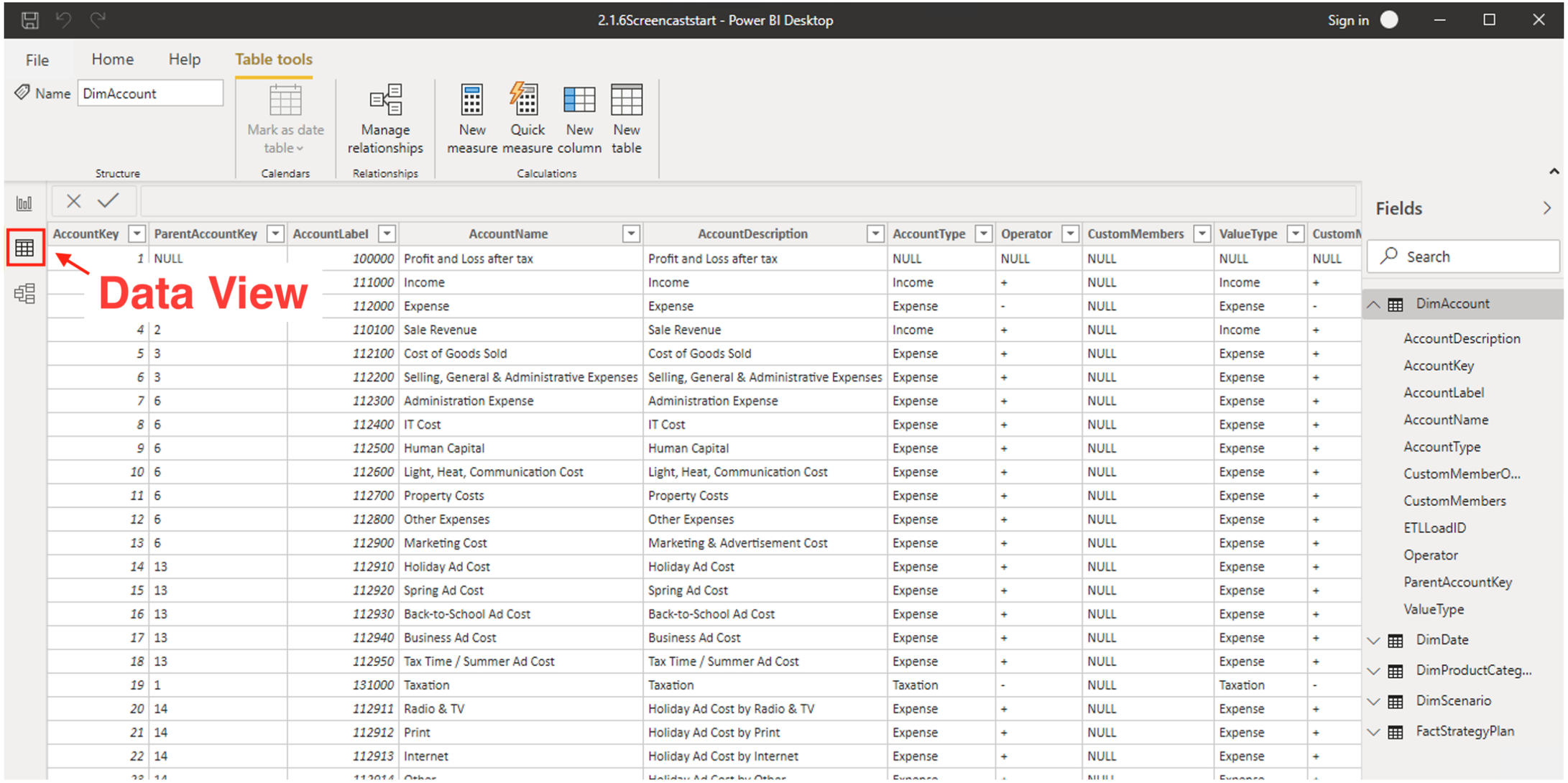
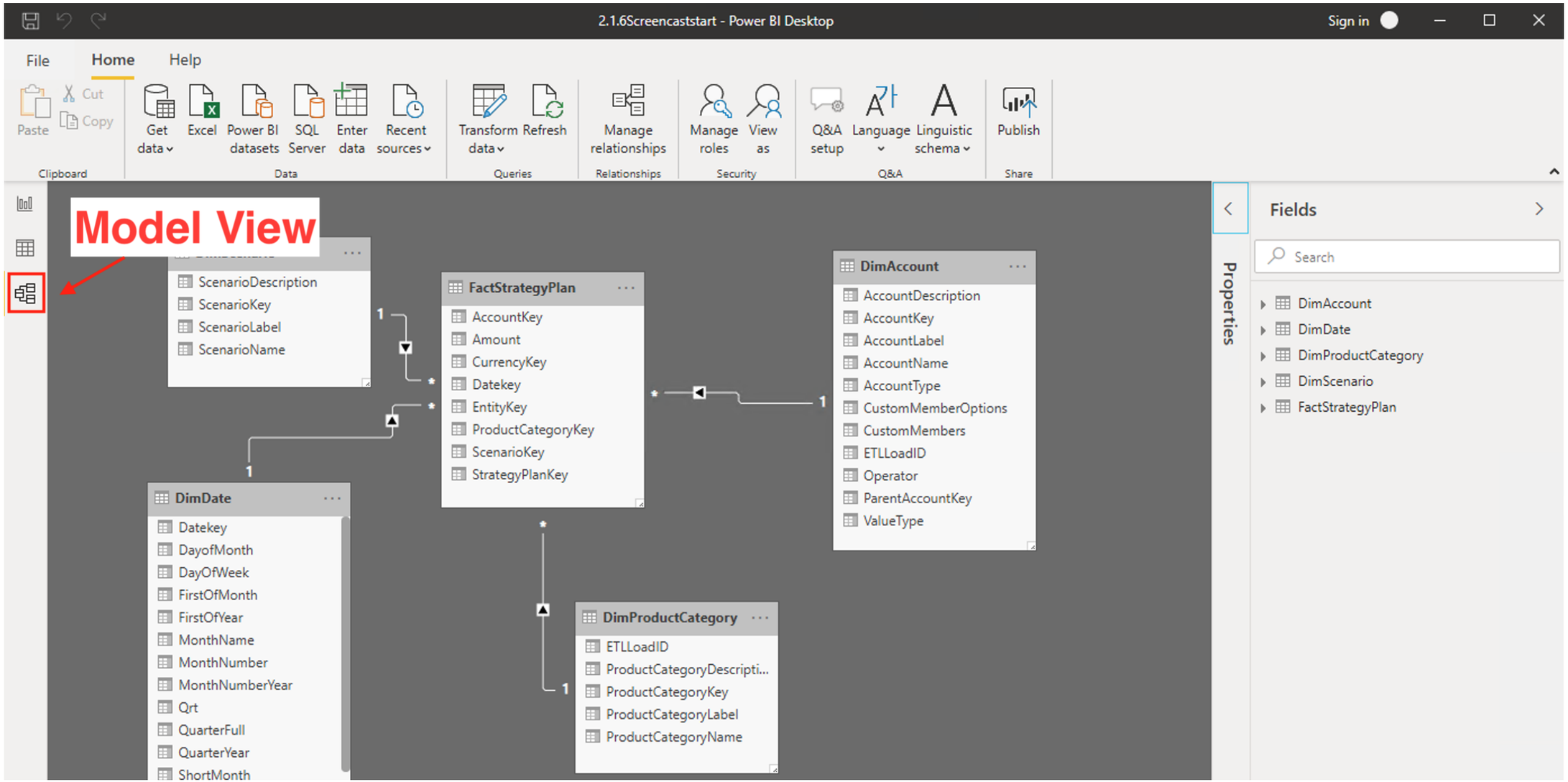
Power BI Interface - Data View

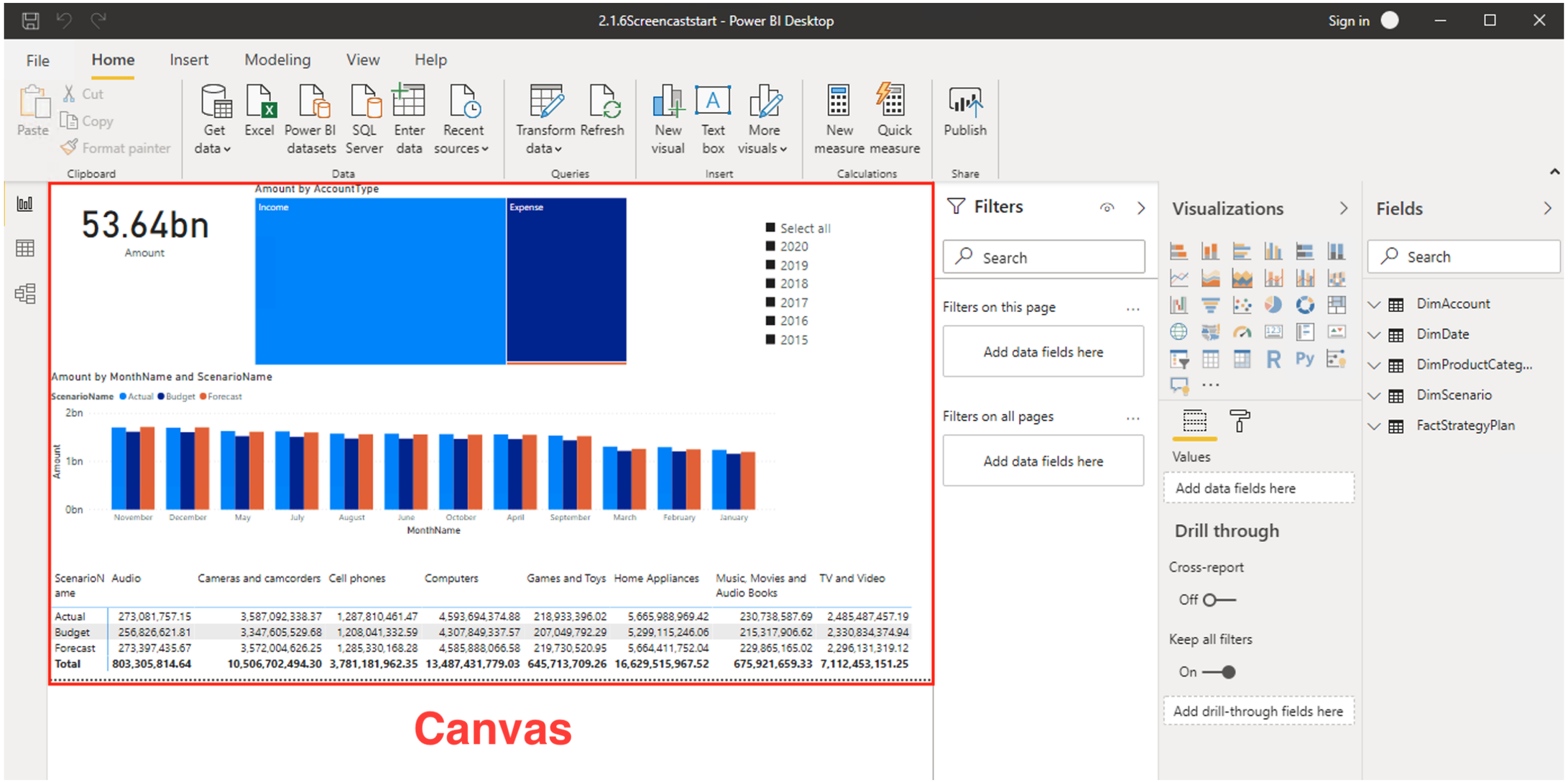


AccountKey	ParentAccountKey	AccountLabel	AccountName	AccountDescription	AccountType	Operator	CustomMembers	ValueType	CustomM
1	NULL	100000	Profit and Loss after tax	Profit and Loss after tax	NULL	NULL	NULL	NULL	NULL
		111000	Income	Income	Income	+	NULL	Income	+
		112000	Expense	Expense	Expense	-	NULL	Expense	-
4	2	110100	Sale Revenue	Sale Revenue	Income	+	NULL	Income	+
5	3	112100	Cost of Goods Sold	Cost of Goods Sold	Expense	+	NULL	Expense	+
6	3	112200	Selling, General & Administrative Expenses	Selling, General & Administrative Expenses	Expense	+	NULL	Expense	+
7	6	112300	Administration Expense	Administration Expense	Expense	+	NULL	Expense	+
8	6	112400	IT Cost	IT Cost	Expense	+	NULL	Expense	+
9	6	112500	Human Capital	Human Capital	Expense	+	NULL	Expense	+
10	6	112600	Light, Heat, Communication Cost	Light, Heat, Communication Cost	Expense	+	NULL	Expense	+
11	6	112700	Property Costs	Property Costs	Expense	+	NULL	Expense	+
12	6	112800	Other Expenses	Other Expenses	Expense	+	NULL	Expense	+
13	6	112900	Marketing Cost	Marketing & Advertisement Cost	Expense	+	NULL	Expense	+
14	13	112910	Holiday Ad Cost	Holiday Ad Cost	Expense	+	NULL	Expense	+
15	13	112920	Spring Ad Cost	Spring Ad Cost	Expense	+	NULL	Expense	+
16	13	112930	Back-to-School Ad Cost	Back-to-School Ad Cost	Expense	+	NULL	Expense	+
17	13	112940	Business Ad Cost	Business Ad Cost	Expense	+	NULL	Expense	+
18	13	112950	Tax Time / Summer Ad Cost	Tax Time / Summer Ad Cost	Expense	+	NULL	Expense	+
19	1	131000	Taxation	Taxation	Taxation	-	NULL	Taxation	-
20	14	112911	Radio & TV	Holiday Ad Cost by Radio & TV	Expense	+	NULL	Expense	+
21	14	112912	Print	Holiday Ad Cost by Print	Expense	+	NULL	Expense	+
22	14	112913	Internet	Holiday Ad Cost by Internet	Expense	+	NULL	Expense	+

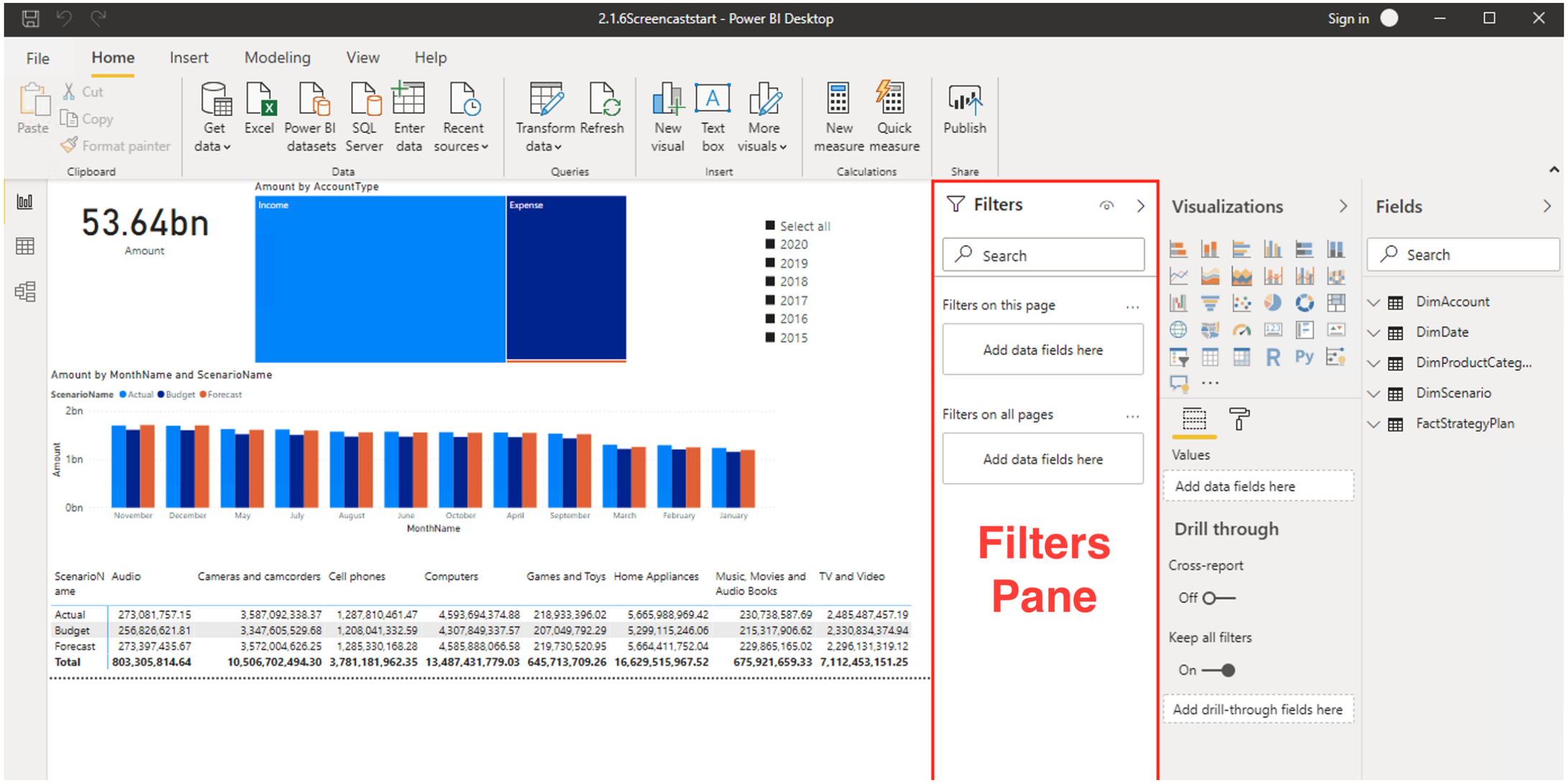
Power BI Interface - Model View



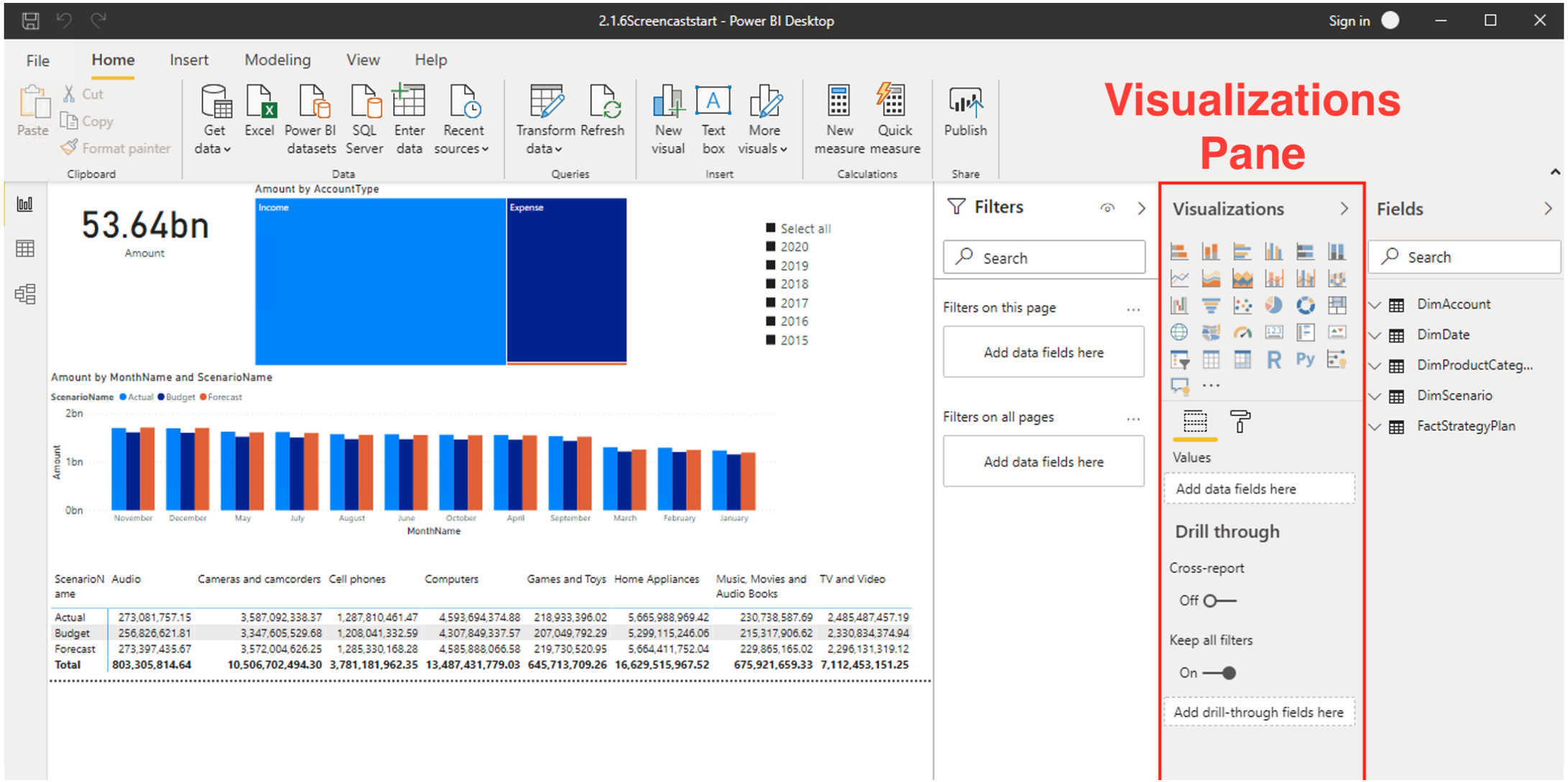
Power BI Interface - Canvas area



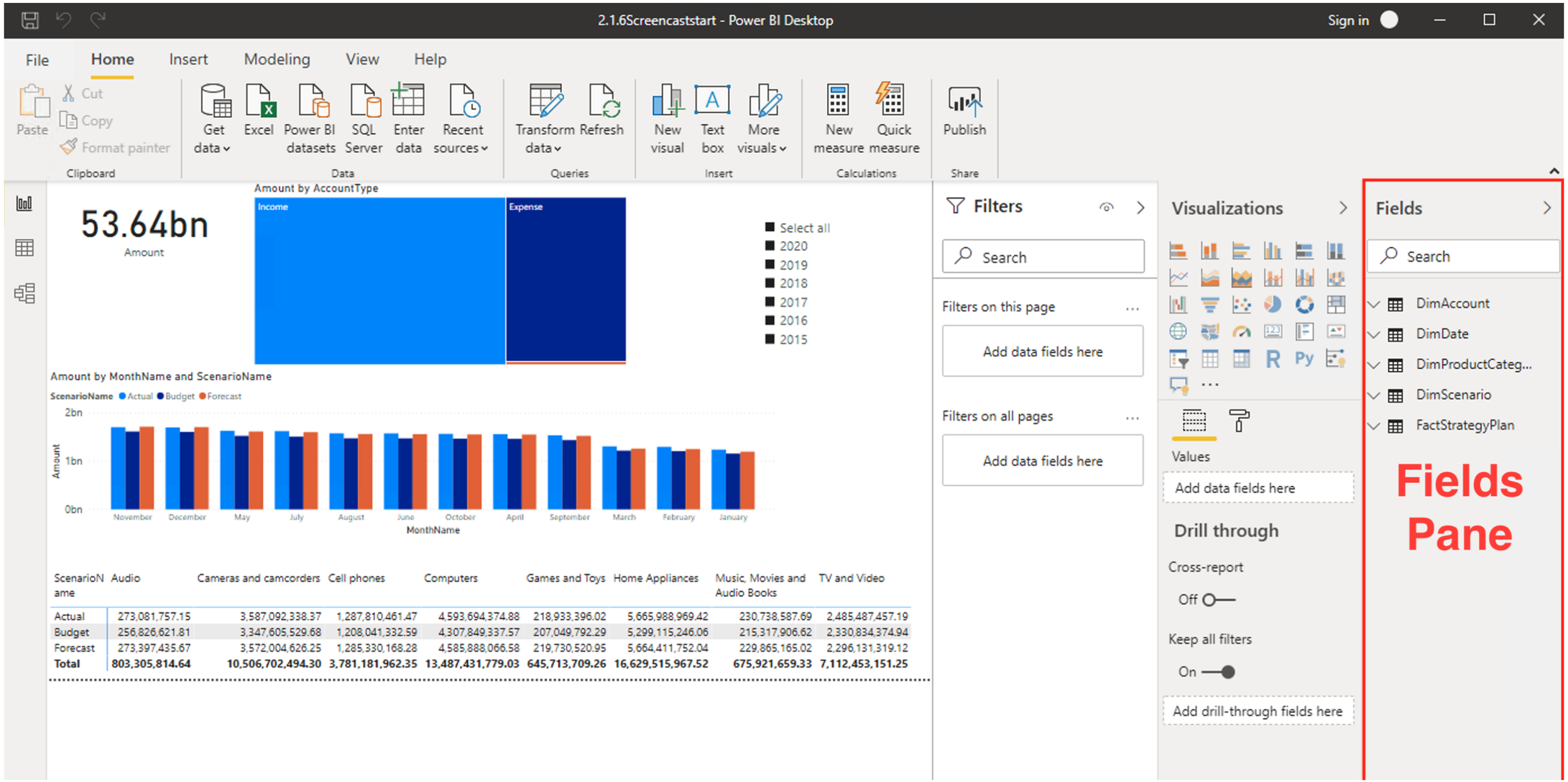
Power BI Interface - Filters pane



Power BI Interface - Visualizations pane



Power BI Interface - Fields pane



Wide World Importers (WWI) dataset

Wide World Importers (WWI) dataset structure

- Star schema
- **Fact Table:**
  - `FactSales.csv`
- **Dimension Tables:**
  - `DimCustomer.csv`
  - `DimEmployee.xlxs`
  - `DimStockItem.csv`
  - `DimDate.csv`
  - `DimCity.csv`

Let's practice!

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Getting started!

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Let's practice!

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Slicers and Tables

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