



ValQ Beginner's Tutorial

Creating a Simple Model

For Microsoft Power BI



<https://valq.com>

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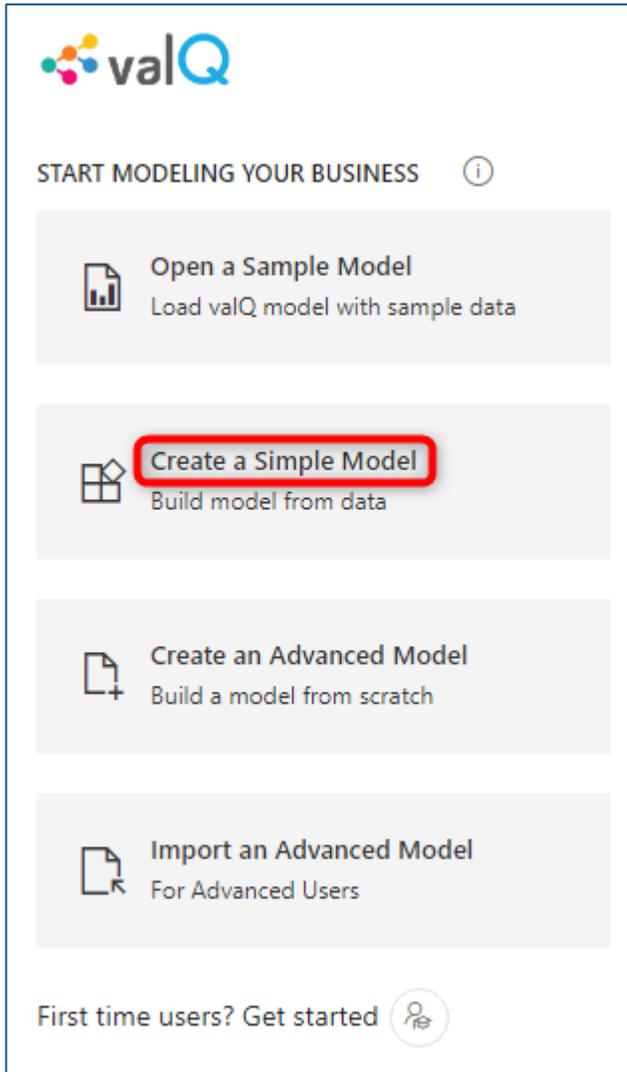
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Disclaimer

The upcoming screengrabs and contents in this presentation is consistent with the ValQ 1.5 version. The content and chronology may vary according to the version running your models.



Welcome to the tutorial for creating Simple Models.

A **simple model** is the quickest way to create a model using ValQ.

These models are *simple* – because you can **create a model directly from your data** without much efforts to configure them.

1. Have your data ready
2. Create a new Power BI report and import your data
3. Select the ValQ custom visual
4. Activate the ValQ custom visual
5. Create a 'Simple Model' from the options available
6. Configure your model by assigning additional fields
7. Explore your model
8. Add children & grand-children nodes
9. Wrapping up

Download the sales performance dataset from [this location](#).

The dataset has the following columns:

- Region
- Product Category
- Sales Rep
- Time Period
- Sales Budget
- Sales Forecast

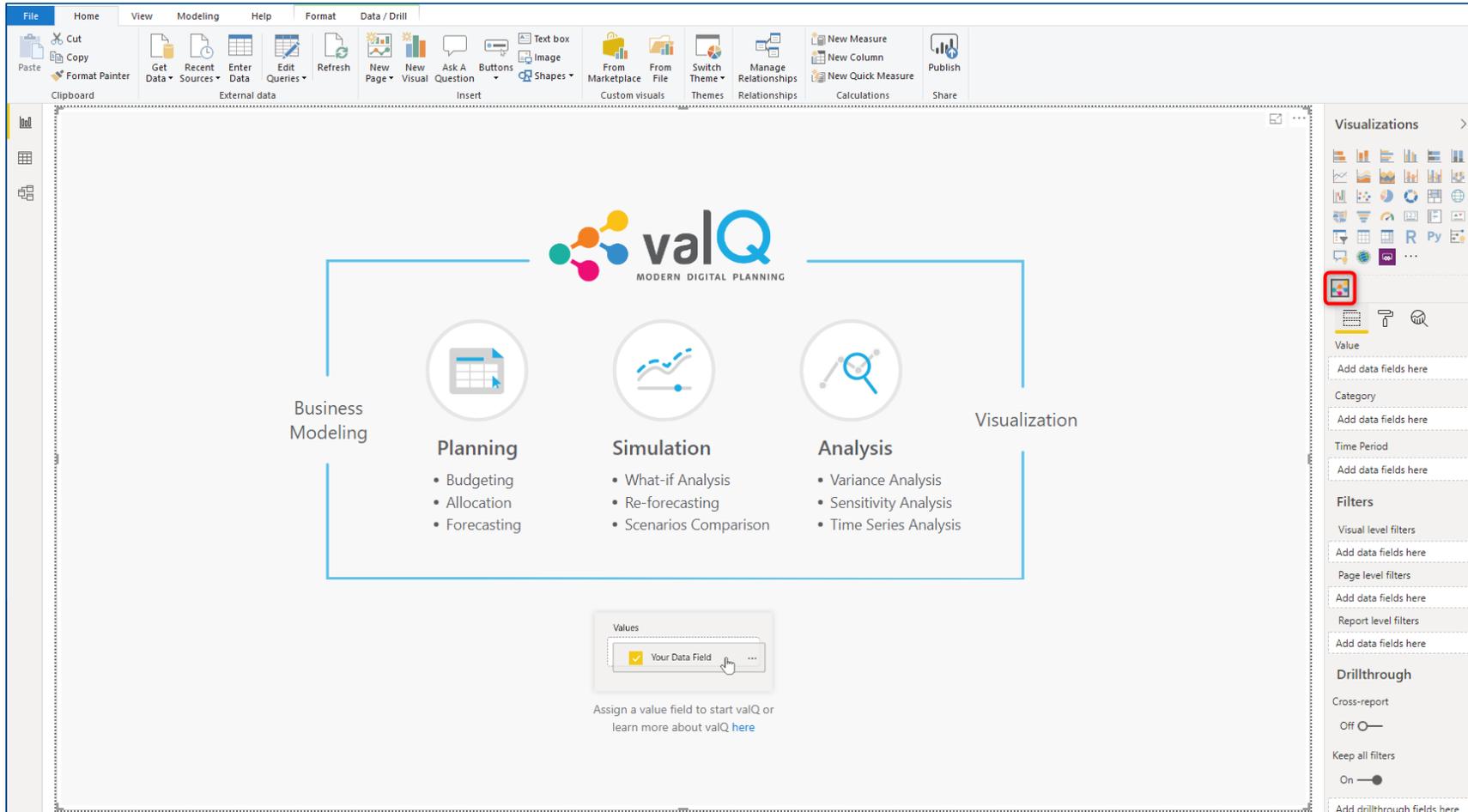
Region	Product Category	Sales Rep	Time Period	Sales Budget	Sales Forecast
West	Consumer	John Smith	Jan-19	2,808,228	1,641,088
West	Consumer	John Smith	Feb-19	1,020,429	3,435,056
West	Consumer	John Smith	Mar-19	2,874,155	2,541,367
West	Consumer	John Smith	Apr-19	325,562	3,123,874
West	Consumer	John Smith	May-19	1,760,681	178,416
West	Consumer	John Smith	Jun-19	1,085,822	3,110,783
West	Consumer	John Smith	Jul-19	2,609,597	1,201,769
West	Consumer	John Smith	Aug-19	1,119,970	1,821,340
West	Consumer	John Smith	Sep-19	68,405	1,719,377
West	Consumer	John Smith	Oct-19	2,212,858	1,206,832
West	Consumer	John Smith	Nov-19	2,773,407	1,717,663
West	Consumer	John Smith	Dec-19	1,358,345	651,018
West	Consumer	Juan Carlos	Jan-19	342,773	1,356,447
West	Consumer	Juan Carlos	Feb-19	1,128,984	2,047,160
West	Consumer	Juan Carlos	Mar-19	687,214	1,394,145
West	Consumer	Juan Carlos	Apr-19	1,864,077	2,570,506
West	Consumer	Juan Carlos	May-19	1,757,670	1,537,968
West	Consumer	Juan Carlos	Jun-19	2,407,271	2,332,621
West	Consumer	Juan Carlos	Jul-19	2,375,706	2,741,706
West	Consumer	Juan Carlos	Aug-19	2,432,600	1,347,837
West	Consumer	Juan Carlos	Sep-19	2,162,203	1,796,053
West	Consumer	Juan Carlos	Oct-19	758,165	176,494
West	Consumer	Juan Carlos	Nov-19	811,209	1,227,738
West	Consumer	Juan Carlos	Dec-19	797,375	2,152,661

- Open Microsoft Power BI and create a 'new report'
- Import the sales performance dataset using the option *Home* → *Get Data* → *Excel*
- Once done, you will be able to see the dataset in the fields section

The first screenshot shows the Power BI 'Get Data' menu. The 'Excel' option is highlighted with a red box. The second screenshot shows the 'Navigator' window displaying a table of 'Sales Performance' data with columns: Region, Category, Sales Rep, Time Period, Sales Budget, and Sales Forecast. The third screenshot shows the 'Fields' pane with the 'Sales Performance' dataset selected and its columns listed: Category, Region, Sales Budget, Sales Forecast, Sales Rep, and Time Period.

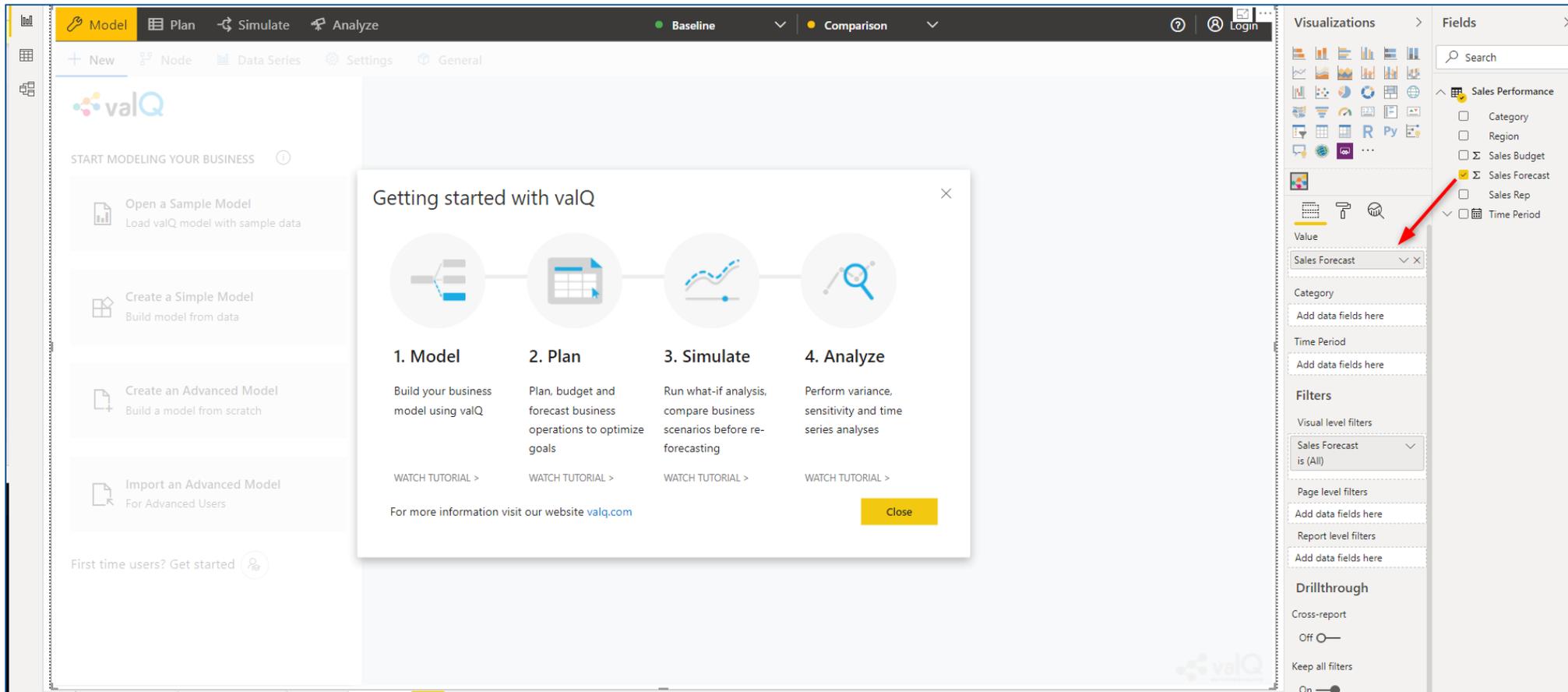
Region	Category	Sales Rep	Time Period	Sales Budget	Sales Forecast
West	Consumer	John Smith	01-01-2019	2800227.894	1641097.968
West	Consumer	John Smith	01-02-2019	1020429.418	345555.85
West	Consumer	John Smith	01-03-2019	2874154.541	2541366.853
West	Consumer	John Smith	01-04-2019	325561.8734	3123874.251
West	Consumer	John Smith	01-05-2019	1760681.227	178416.0909
West	Consumer	John Smith	01-06-2019	108582.115	3110792.983
West	Consumer	John Smith	01-07-2019	2605996.655	1201769.035
West	Consumer	John Smith	01-08-2019	1118970.124	1821340.145
West	Consumer	John Smith	01-09-2019	68404.86979	1718377.12
West	Consumer	John Smith	01-10-2019	2212858.442	1206831.539
West	Consumer	John Smith	01-11-2019	2773407.177	1717662.994
West	Consumer	John Smith	01-12-2019	135845.37	651018.2907
West	Consumer	Juan Carlos	01-01-2019	342773.0812	1356446.683
West	Consumer	Juan Carlos	01-02-2019	1128984.291	2047160.27
West	Consumer	Juan Carlos	01-03-2019	687213.8206	1394144.956
West	Consumer	Juan Carlos	01-04-2019	1864077.035	2570506.297
West	Consumer	Juan Carlos	01-05-2019	1757669.763	1537968.074
West	Consumer	Juan Carlos	01-06-2019	240771.42	232621.245
West	Consumer	Juan Carlos	01-07-2019	2375705.656	2741706.386
West	Consumer	Juan Carlos	01-08-2019	2432600.222	1347836.534
West	Consumer	Juan Carlos	01-09-2019	2162002.818	1786052.991
West	Consumer	Juan Carlos	01-10-2019	758165.3655	176493.8212
West	Consumer	Juan Carlos	01-11-2019	811209.899	1227737.923
West	Consumer	Juan Carlos	01-12-2019	797374.8027	2462561.156
West	Consumer	Juan Carlos	01-01-2019	1734284.771	1184009.470

- Click the ValQ custom visual to view the below canvas
- Resize the visual to fit the page



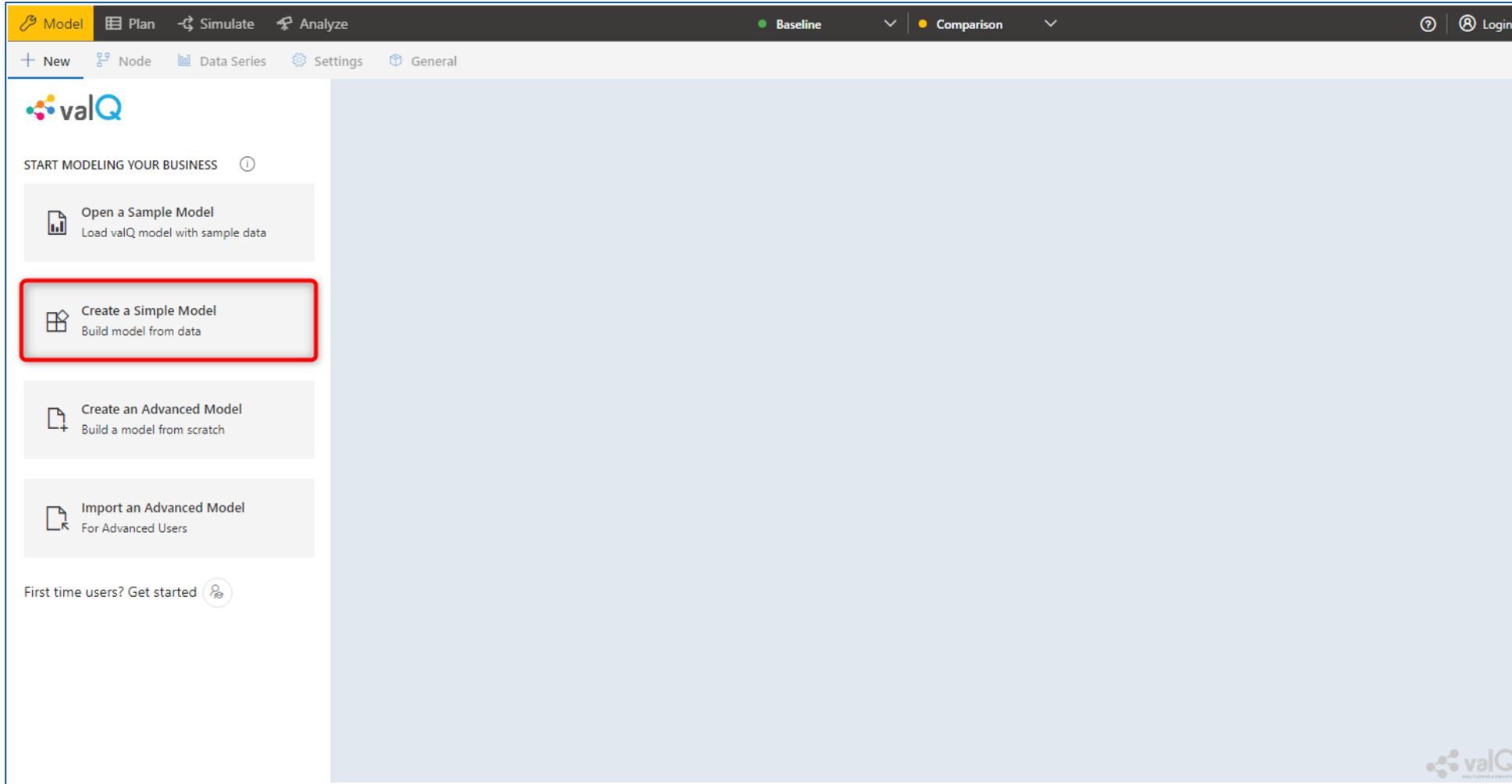
The screenshot displays the ValQ software interface. At the top, there is a ribbon menu with tabs for File, Home, View, Modeling, Help, Format, and Data / Drill. The ribbon contains various icons for actions like Cut, Copy, Paste, Get Data, Recent Sources, Enter Data, Edit Queries, Refresh, New Page, New Visual, Ask A Question, Buttons, Image, Shapes, From Marketplace, From File, Switch Theme, Manage Relationships, New Measure, New Column, New Quick Measure, and Publish. The main canvas area is titled "valQ MODERN DIGITAL PLANNING" and features a navigation menu with four main categories: Business Modeling, Planning, Simulation, and Analysis. The Planning category includes Budgeting, Allocation, and Forecasting. The Simulation category includes What-if Analysis, Re-forecasting, and Scenarios Comparison. The Analysis category includes Variance Analysis, Sensitivity Analysis, and Time Series Analysis. A "Visualization" label is positioned to the right of the navigation menu. Below the navigation menu, there is a "Values" section with a dropdown menu showing "Your Data Field" and a "Assign a value field to start valQ or learn more about valQ here" link. On the right side of the interface, there is a "Visualizations" panel with a grid of icons for different chart types. A red box highlights one of the icons in the grid. Below the grid, there are sections for Value, Category, Time Period, Filters, and Drillthrough, each with "Add data fields here" text and a dropdown menu.

- Select the 'Sales Forecast' checkbox to activate the the ValQ custom visual
- Select 'Close' at the popup window on 'Getting started with valQ'

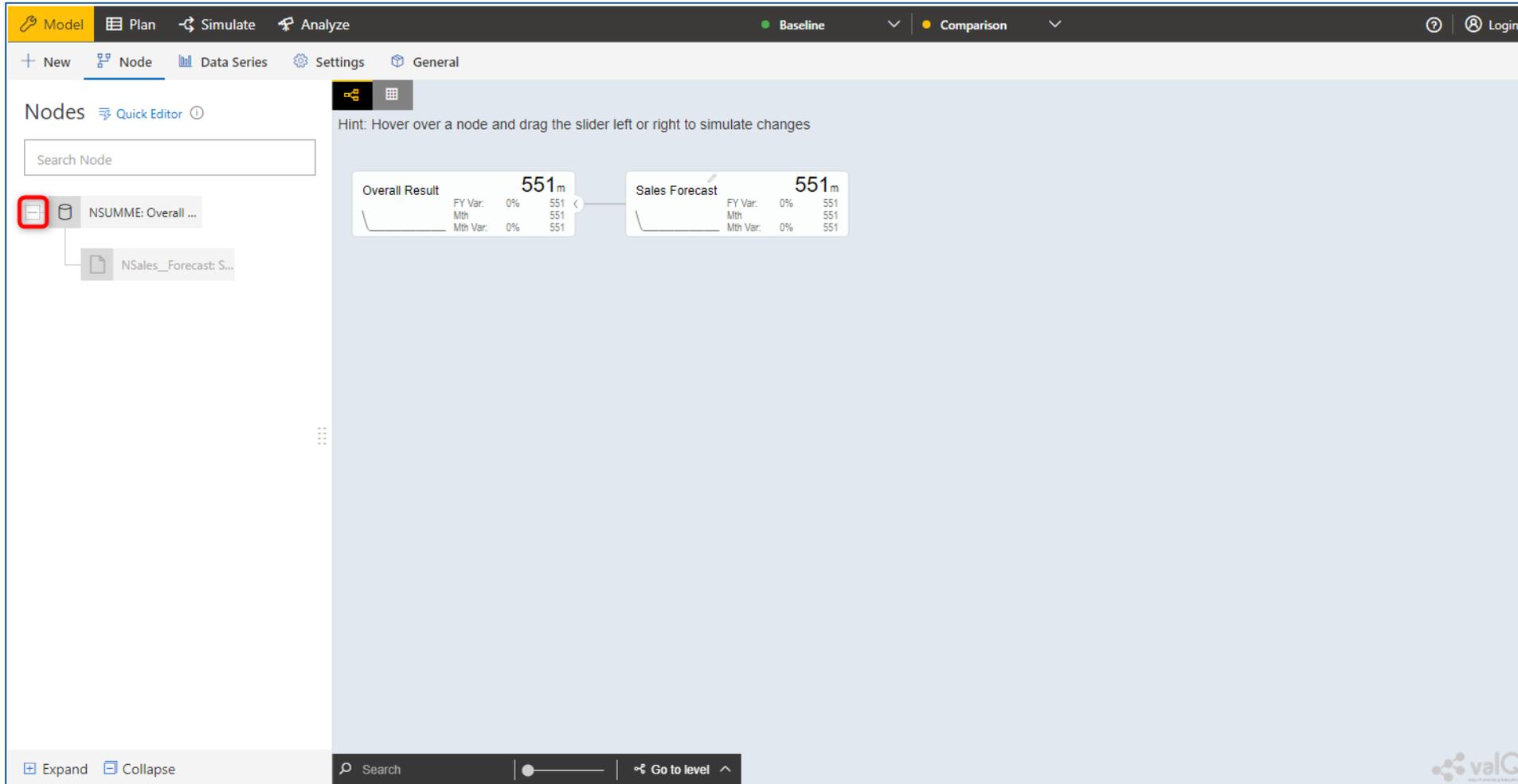


The screenshot displays the ValQ software interface. At the top, there is a navigation bar with tabs for 'Model', 'Plan', 'Simulate', and 'Analyze'. Below this, a toolbar contains icons for '+ New', 'Node', 'Data Series', 'Settings', and 'General'. The main workspace shows a 'START MODELING YOUR BUSINESS' section with options like 'Open a Sample Model', 'Create a Simple Model', 'Create an Advanced Model', and 'Import an Advanced Model'. A central popup window titled 'Getting started with valQ' is open, featuring a four-step process: 1. Model (Build your business model using valQ), 2. Plan (Plan, budget and forecast business operations to optimize goals), 3. Simulate (Run what-if analysis, compare business scenarios before re-forecasting), and 4. Analyze (Perform variance, sensitivity and time series analyses). A 'Close' button is visible at the bottom right of the popup. On the right side of the interface, the 'Visualizations' and 'Fields' panels are visible. In the 'Fields' panel, under 'Sales Performance', the 'Sales Forecast' checkbox is checked, and a red arrow points to it. Below the 'Fields' panel, there are sections for 'Value', 'Category', 'Time Period', 'Filters', and 'Drillthrough'.

- Click the option “Create a Simple Model”



- A model with the Sales Forecast node is created on the canvas at the right
- The hierarchy of the model can be viewed by clicking '+' at the panel on the left

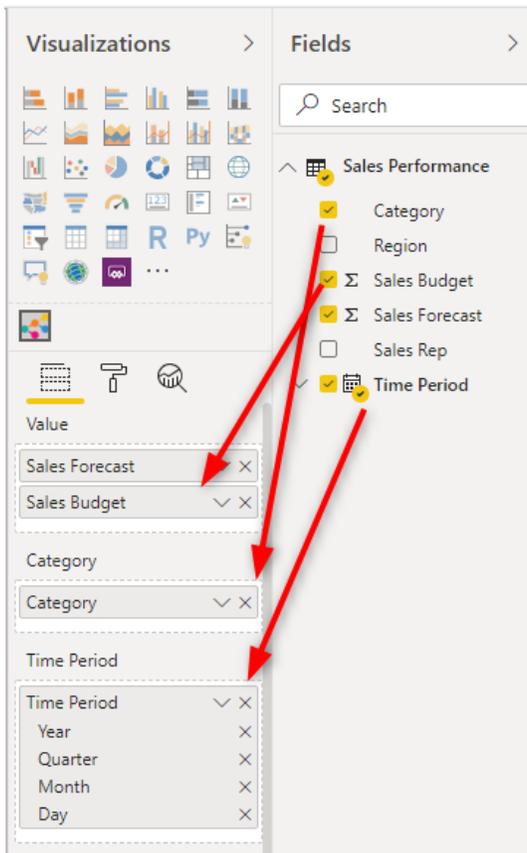


The screenshot displays the valQ software interface. At the top, there is a navigation bar with tabs for 'Model', 'Plan', 'Simulate', and 'Analyze'. Below this is a secondary bar with options like '+ New', 'Node', 'Data Series', 'Settings', and 'General'. The main workspace is divided into two panels. On the left, a 'Nodes' panel shows a search bar and a tree view with two nodes: 'NSUMME: Overall ...' (highlighted with a red box) and 'NSales_Forecast: S...'. On the right, the main canvas shows a model with two nodes: 'Overall Result' and 'Sales Forecast', both displaying a value of 551m. A hint text above the nodes reads: 'Hint: Hover over a node and drag the slider left or right to simulate changes'. Below the nodes, there are two small tables showing variance data:

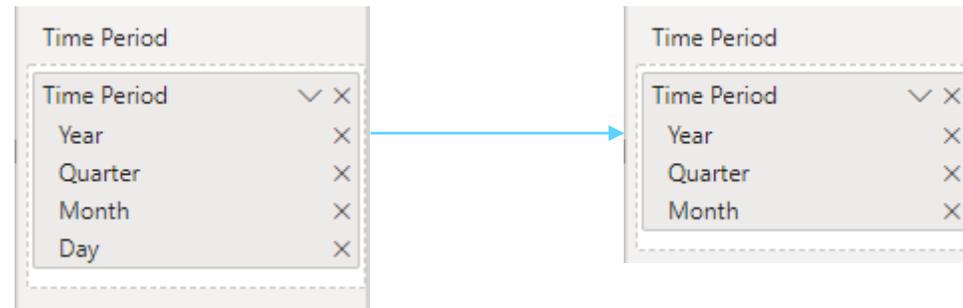
	FY Var:	Mth	Mth Var:
Overall Result	0%	551	551
Sales Forecast	0%	551	551

At the bottom of the interface, there are controls for 'Expand', 'Collapse', a search bar, a slider, and a 'Go to level' button. The valQ logo is visible in the bottom right corner.

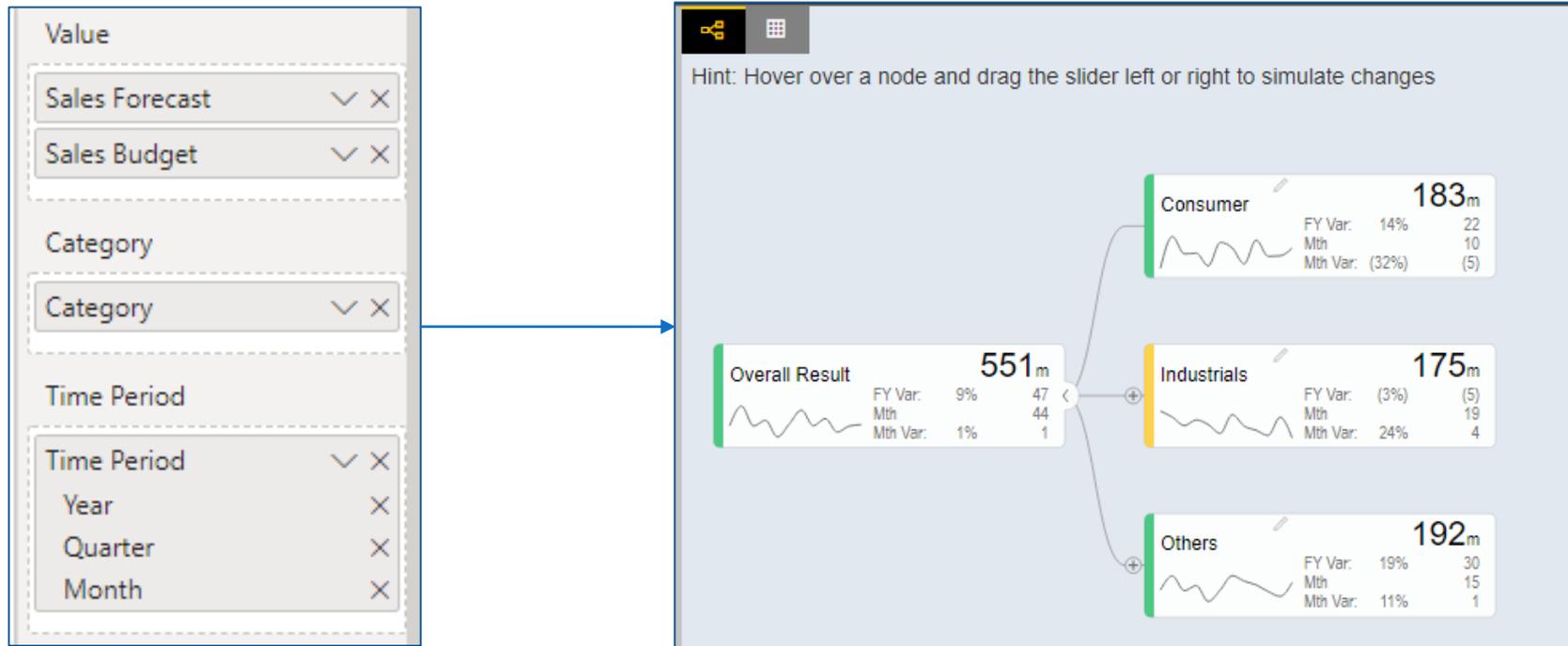
- The model is not complete as we have not yet added all the fields required.
- Drag and drop the remaining fields as shown (**Sales Budget** to the *Value* field right after Sales Forecast, **Category** to *Category* field, and **Time Period** to *Time Period* field)



Remove the 'Day' field from Time Period as we will be performing only a monthly analysis.



- At this point, the model updates itself to show sales performance by Product Category
- A topmost node is also created with the name “Overall Result”, which provides aggregate sales performance



Each node represents a metric, and can contain the following:

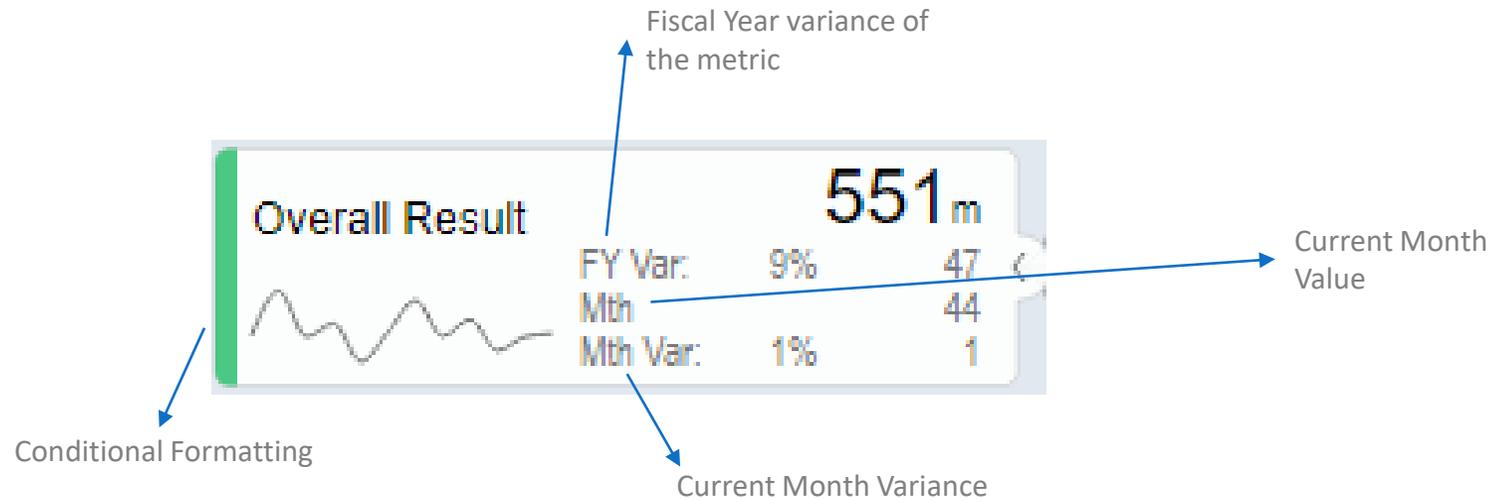
- Name of the Key Performance Indicator (KPI)
- A sparkline graph indicating the recent trend
- The value of the metric in bold letters



In addition, each node also contains several performance metrics:

- The Fiscal Year variance of the metric vs. a benchmark (in this case, Sales Forecast vs. Sales Budget) – this is shown in both % and absolute terms
- Absolute value of the metric for the current month (usually the first period in the series)
- Variance of the metric vs. a benchmark for the current month – this is shown in both % and absolute terms

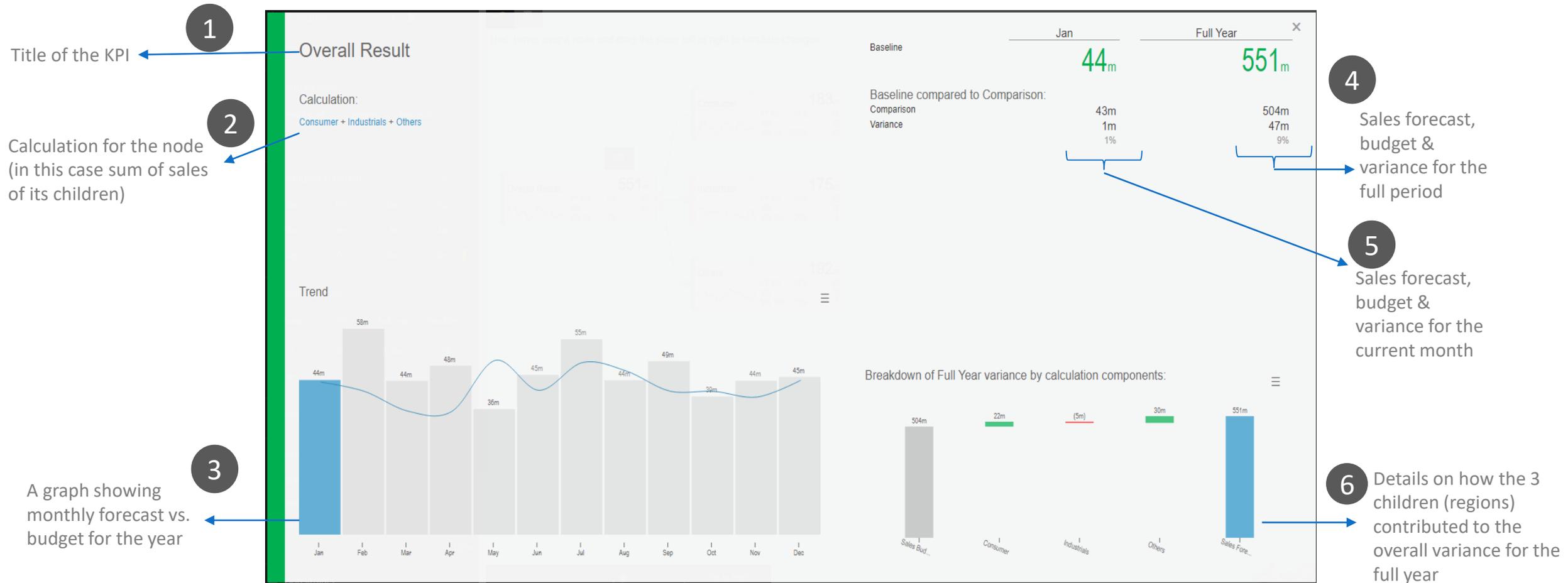
A node may be decorated by a performance indicator color band on the left – typically Green (for good), Amber (neither good nor bad) and Red (Poor).



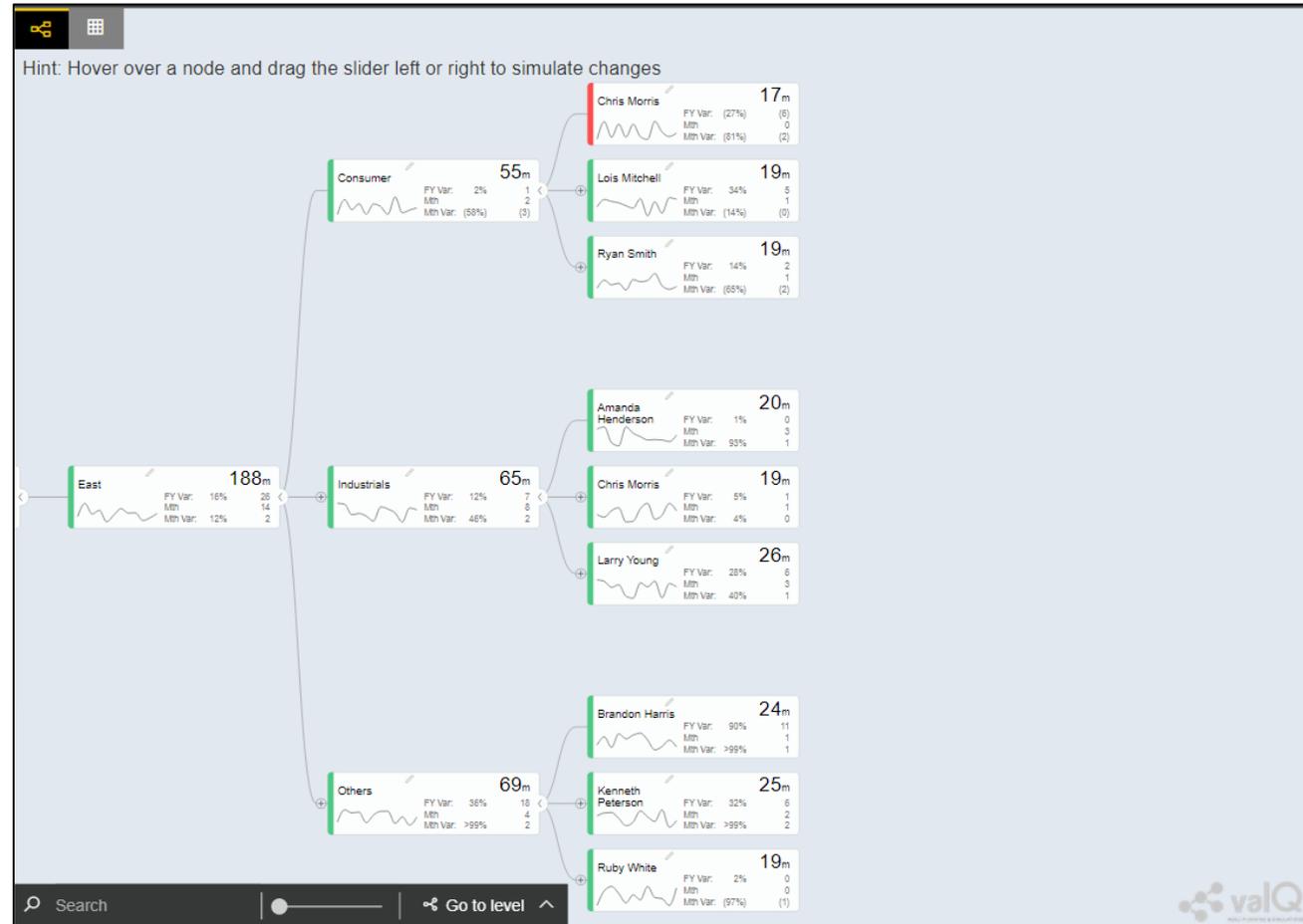
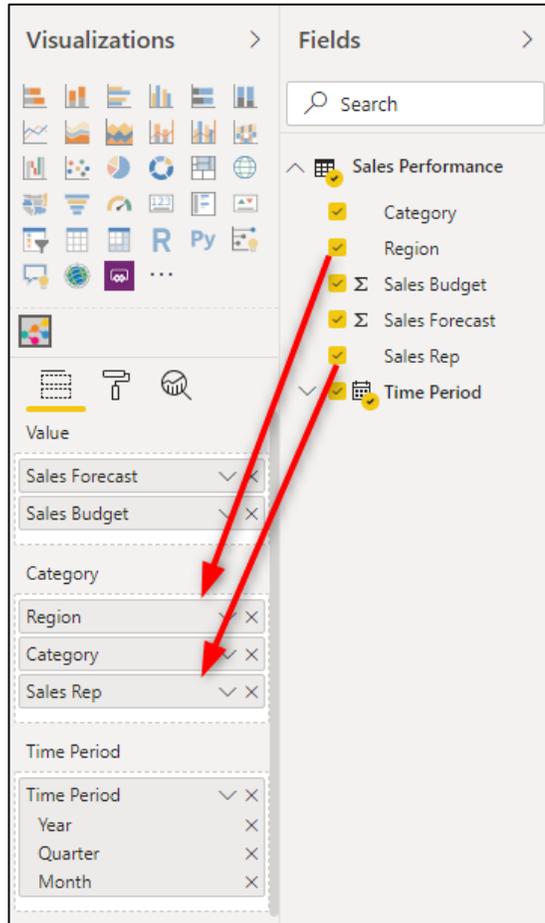
Simple Model

Step 7: Explore your model

Click anywhere on the node “Overall Result”. You will see more details about the node on the popup.



To create a node hierarchy that spans multiple levels, add more nodes against the field “Category” in any order you desire. This will create a model with 4 levels of hierarchy, the first level being the “Overall Result” (not shown in the picture)



Sub-tree for Region = “East”, with Category & Sales Rep in the subsequent levels

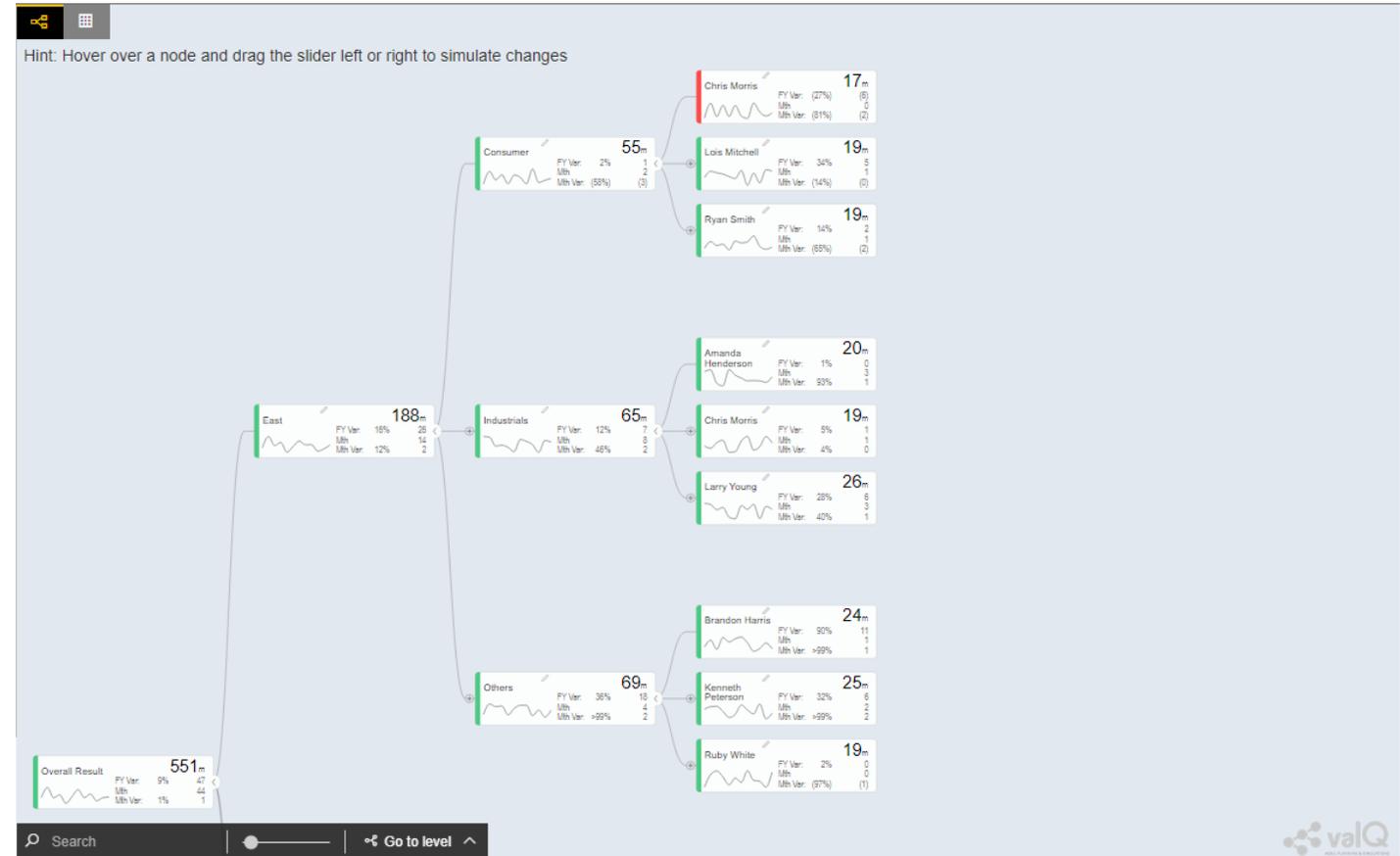
Simple Model

Step 9: Wrapping Up

Congratulations. You have created a simple dynamic model that breaks down overall sales into sales by region, category & sales rep.

A simple dynamic model such as this can cover all *additive* scenarios where parent nodes are calculated as sum of the values of the child nodes. (e.g. Sales for East = Sum of the sales for the product categories in the eastern region).

To learn ***how to perform simulations on this model*** or to ***create a model with advanced calculations***, visit the Resources → Videos section in the [website](#).





Thank You

support@valq.com