Comparing the Implementation of Business Logic and Analytical Needs

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Overview

Comparing data modeling and analytical features

Understanding different implementation approaches of business logic

Implementing and complying with security regulations

Data Modeling and Analytical Features

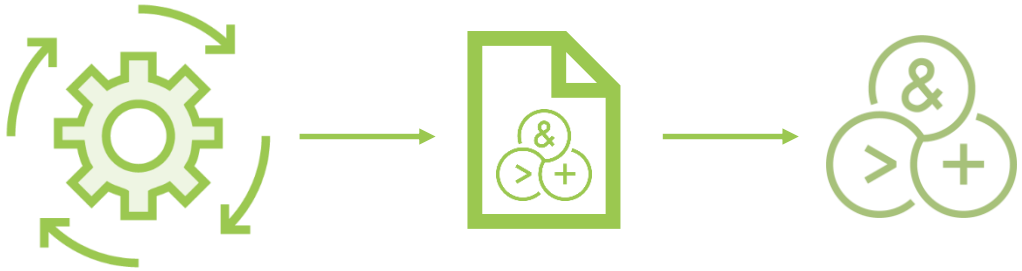
Multidimensional	Tabular
Named sets	Power query/M expression
Default members	Detail rows expression
Custom rollups	Calculated table
Writeback	Calculated column
Aggregations	
Actions	
Custom assemblies	

	Multidimensional	Tabular
Data Relationships	1:M, M:N	1:M, M:N (Bi-directional cross filter)
Hierarchies	Native support of various options	Standards supported, else DAX functions
Role-playing Dimensions	Native support (Auto-duplication)	Manual duplication
Row-level Transformations	Data source/query	Data source/query or directly in model
KPIs	Actual, goal, status, trend	Actual, goal, status
Time Intelligence	Using a wizard	DAX functions
Measures/Aggregations	Aggregate functions (Drop-down)	DAX functions
Currency Conversion	Using a wizard	DAX functions
Calculations	MDX script (Reusabilty)	DAX functions

Implementation of Business Logic

Implementation of Business Logic

Multidimensional



MDX calculation script

Scope assignment

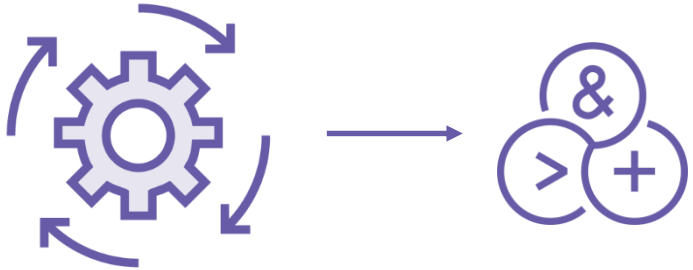
Evaluation at processing or query time

Calculated member (dimension)

Calculated member (measure)

Code reusability

Tabular



Separate DAX calculations

Filter function

Evaluation at query time

Calculated column/table

Calculated measure

Code repetition

Security Roles

Security Roles

Multidimensional	Tabular
Role-based	**Role-based**
Wizard and MDX functions	Wizard and DAX functions
Dynamic security	Dynamic security
Database, dimension, and cell-level	Database, object, and row-level
Multiple roles are additive	Multiple roles are additive
Security restricted to single dimensions	Security propagated down in query
Control of Visual Totals, drillthrough, and default member	Not supported

Demo

Comparing the usability and application of functionalities

Creating a hierarchy and a many-to-many relation

Implementing same calculations in both model types

Adding a security role and applying filter logic

Summary

Analyzing the models regarding their functionalities

Comparing the different approaches for implementing business logic

Discussing the application of security roles

Making usage of some functionalities by also examining the usability