Datafor ®

data visualization and analysis

Agenda

✓ Overview

☐ Features

Datafor

Datafor is a self-service BI tool that offers intuitive data visualization and analysis, empowering users to explore, analyze, and make informed decisions efficiently.

✓ Powerful analytics for various data types.

✓ Easy-to-use reports and dashboards.

✓ Self-service analytics for non-tech users.

✓ Real-time monitoring of business operations.

✓ Mobile access for data-driven decisions.

✓ Seamless integration with other applications.

used by users from more than 56 countries

Download Statistics

All Files / V3.3 (Change File)
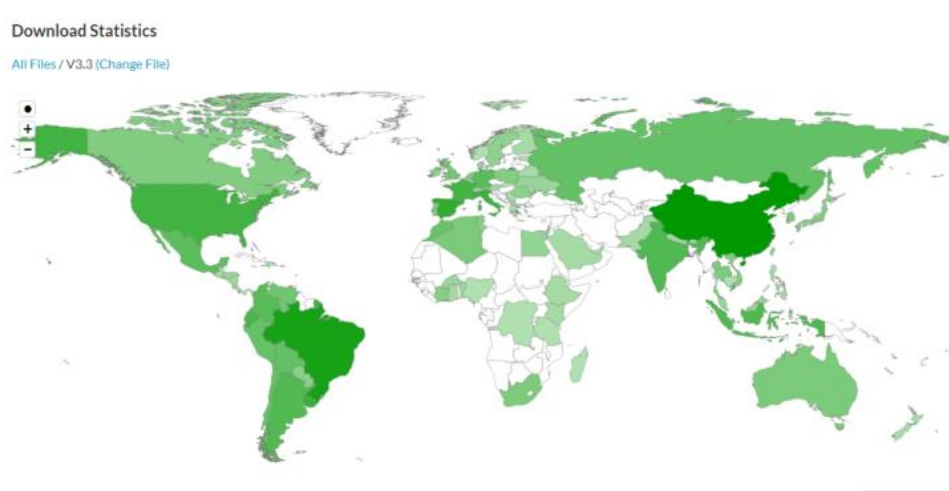
Total analytic and visualization solution

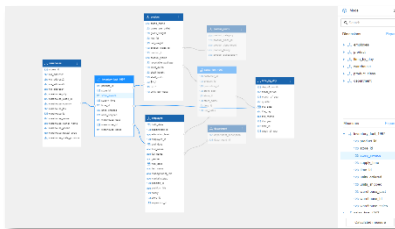| Access data	Prepare data	Analyze and Visualize data	Share insights

Big data

Relational

NoSQL

File

others
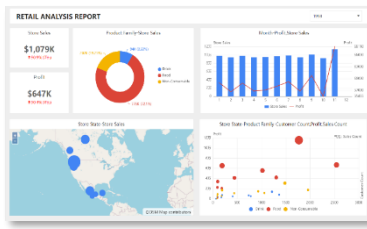
- visual modelling
- star/snowflake schema
- data dictionary
- calculated formula
- grouping and aggregation
- role-based data visibility
- MDX support

- Exploratory analysis
- 100+ visual components
- Dashboard, analysis, map, report, 3d model
- drill down, roll up, slicing, filtering, drill-through
- auto-refresh

- responsive design
- automatically adapt to all devices
- export image/excel/csv/pdf
- mail subscription
- hyperlink for sharing
- Iframe/div embed
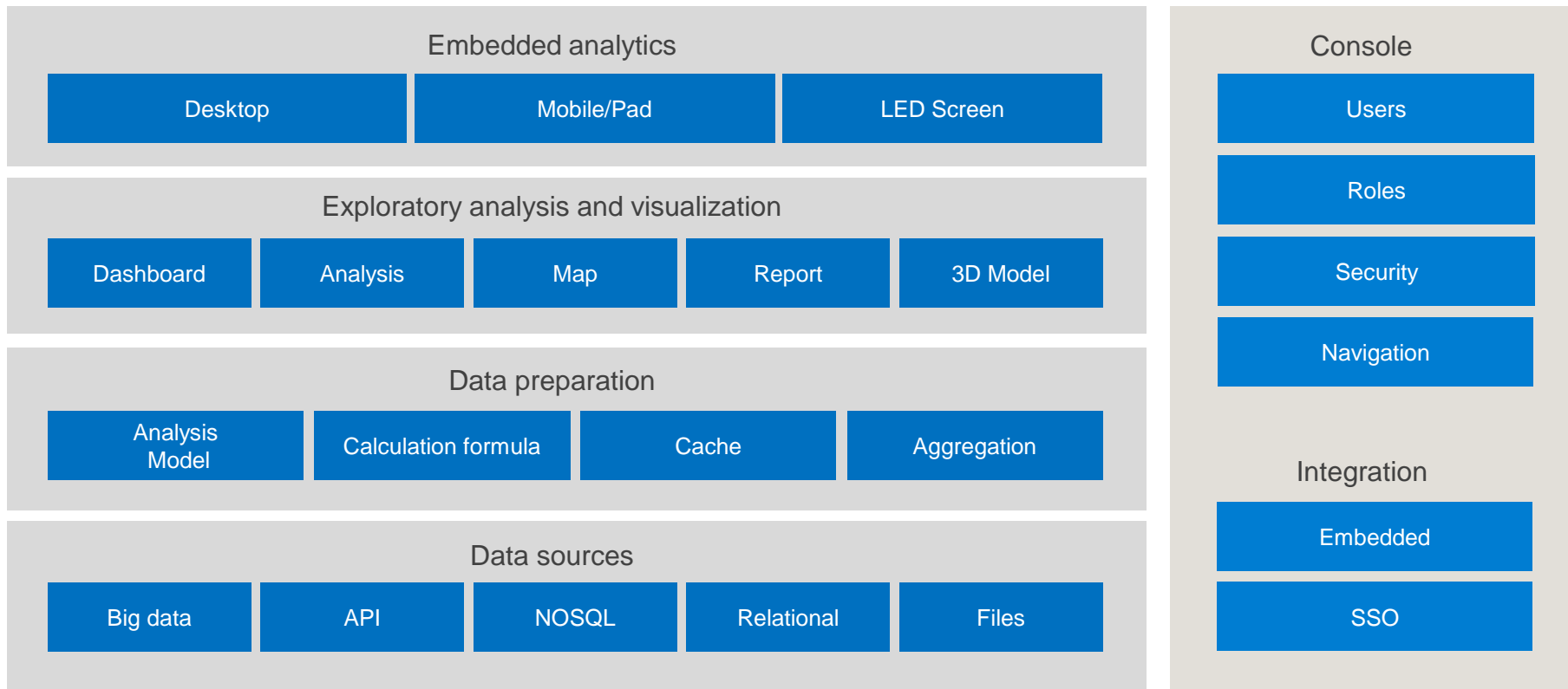- wechat/dingding support

System Administration	Integration
Security	Scalability

Agenda

- ☐ Overview

- ✓ Features

The architecture

Embedded analytics

Desktop	Mobile/Pad	LED Screen

Exploratory analysis and visualization

Dashboard	Analysis	Map	Report	3D Model

Data preparation

Analysis Model	Calculation formula	Cache	Aggregation

Data sources

Big data	API	NOSQL	Relational	Files

Console

Users
Roles
Security
Navigation

Integration

Embedded
SSO

Comprehensive data source access

Big Data Platform

SAP HANA

SparkSQL

Impala

Multidimensional Database

Kylin

SAP BW

SSAS

Relational Database

Oracle

DB2

MySQL

SQLServer

PostgreSQL

Sybase

TiDB

……

NoSQL Database

MongoDB

File

CSV/TXT

Excel

Cloud Database/Data Warehouse

Snowflake

Redshift

Effortless intuitive modeling

- Create multi-dimensional models in a few clicks

- Define columns and hierarchies in business terms

- Support complicated models (star, snowflake, multiple fact tables)

- Support member formatting, calculated columns, and calculated metrics

- Off-the-shelf formulas to create complex measures
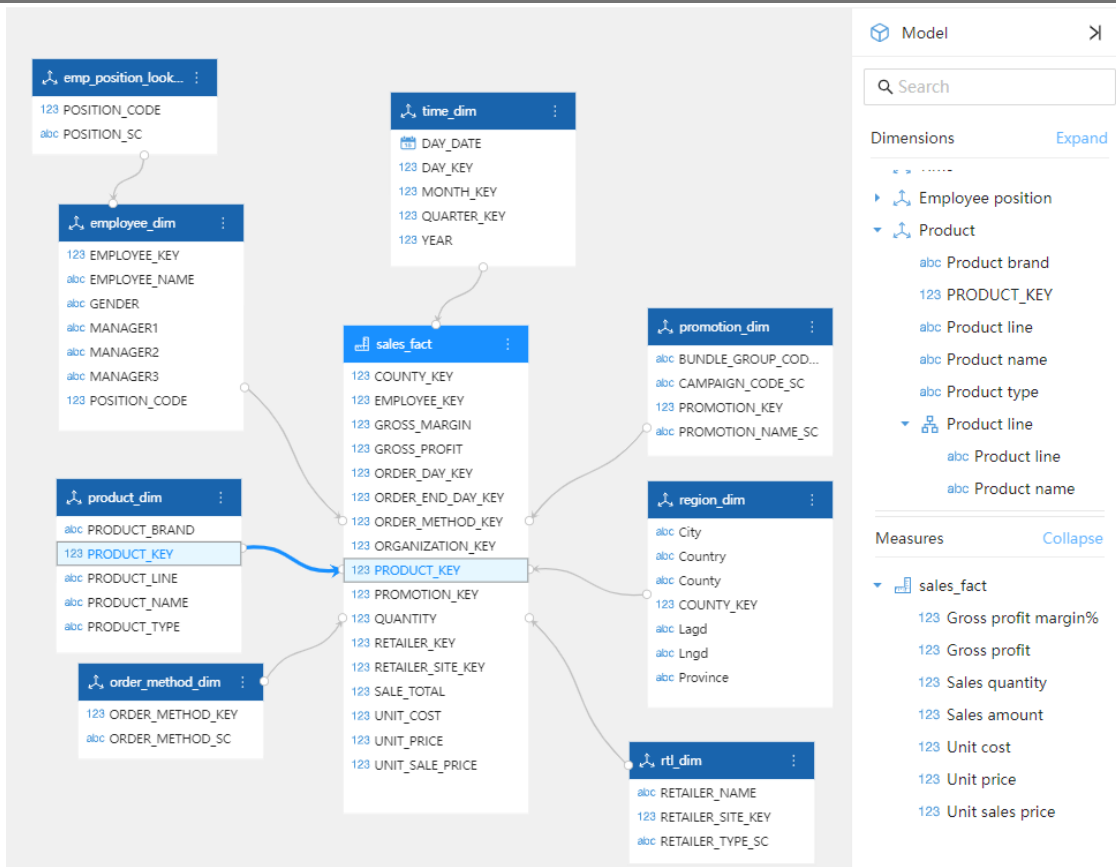
WYSIWYG Designer

Versatile Chart Types to Choose from
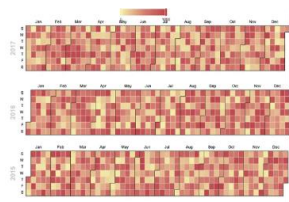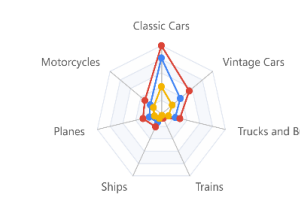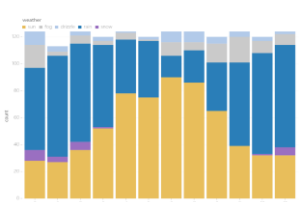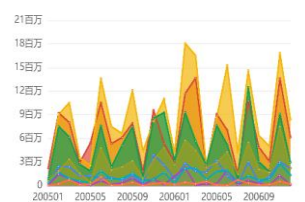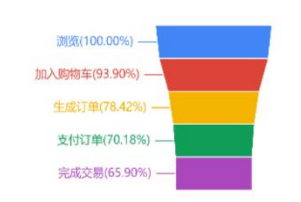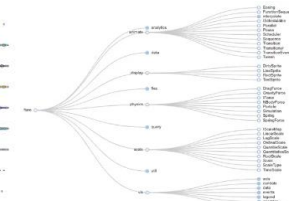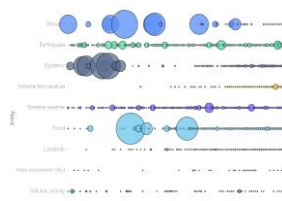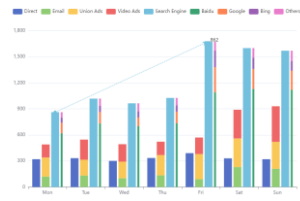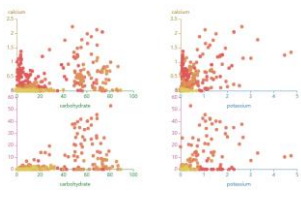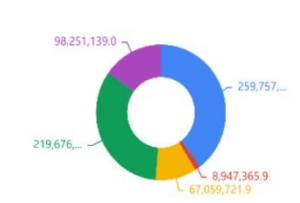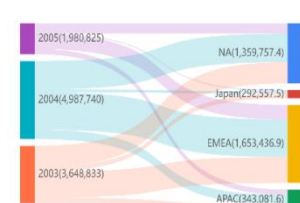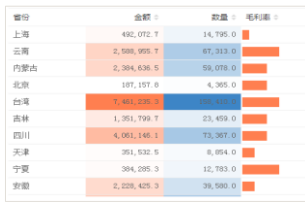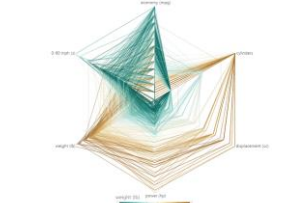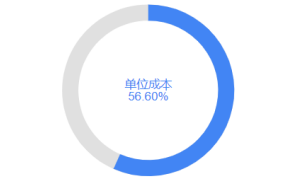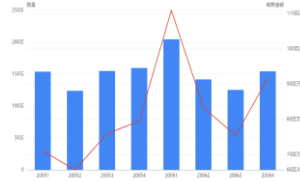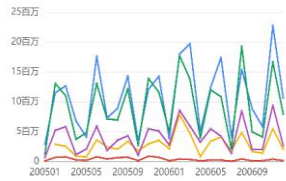
Multi-dimensional pivot table

- Multi-dimensional data visualization.

- Summarizes data dynamically, including totals, averages, percentages, and more.

- Wide range of formatting choices, including text styles, colors, data bars, and more.

- Interacts with other visualization components. Filtering, sorting, and drilling down operations within the pivot table.

- Sub-second rendering and smooth interactions with millions of data rows

- Exports to Excel and csv files

Visualize geospatial data

- **GIS map services**: Includes Mapbox, Google Maps, Amap, OpenStreetMap, and more.

- **WebGL**: fast 3D rendering delivers intuitive, realistic, and comprehensive geographical analysis.

- **Interactivity**: supports interactions including zooming, panning, filtering, and more.

- **Built-in Geocoding**: convert addresses into latitude and longitude coordinates.

- point map, proportional symbol map, cluster map, choropleth map, heat map

Easy-to-extend Visualization Components

Component.js
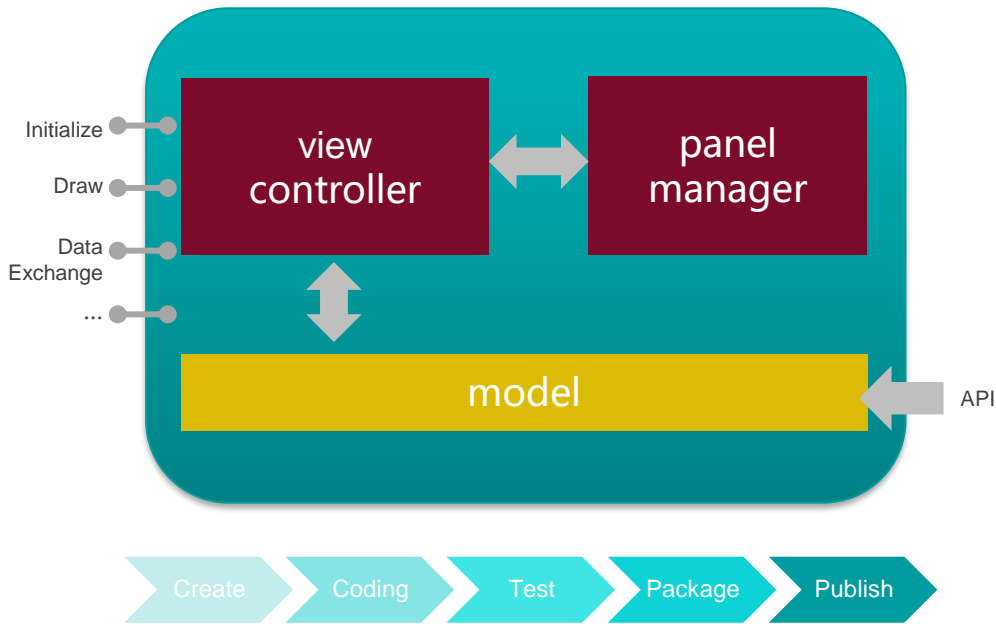
- **Flexibility**: Introduce third-party chart libraries such as D3.js, Chart.js, etc., to meet more complex data visualization needs.

- **Specific** Requirements: Create customized visualization components based on specific business scenarios and requirements.

- **Scalability**: Update and expand custom visualization components as needed.

Fully customizable visual components

- **Rich options**: Including color, font, size, spacing, labels, borders, etc.

- **Real-time effect**: Instantly preview the modified effects to intuitively understand the adjusted component style.

- **Dynamic styles**: Dynamically adjust styles based on different data conditions and analysis results.
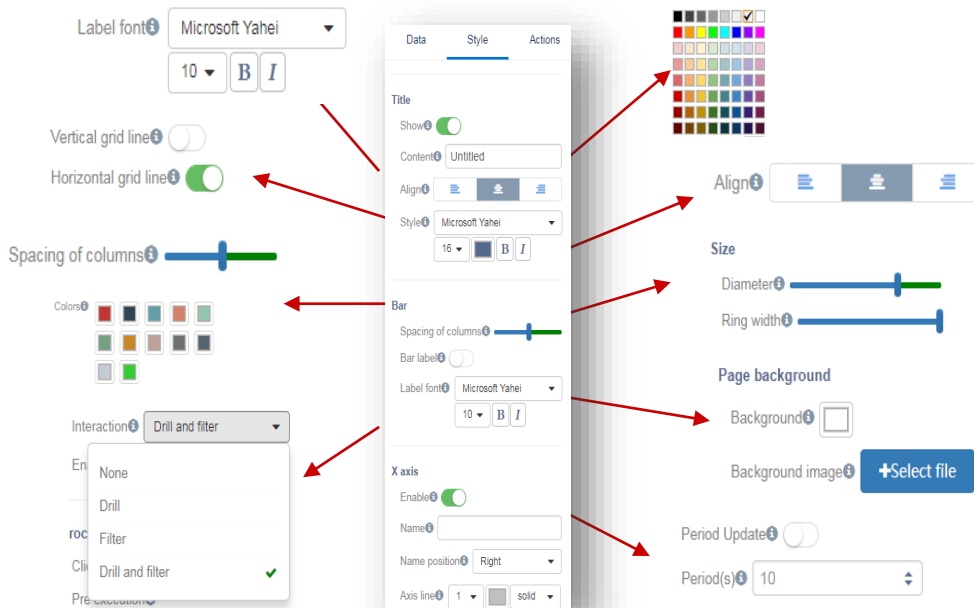
Adapt page layouts to different screen sizes

- **Adaptive layout**: Fits various sizes and orientations of mobile devices.

- **Mobile view editing**: Edit layouts and content directly within the mobile device view.

- **Real-time preview**: Instantly preview the effects on different devices during the design process.

Exploratory Analysis

Drill-down	Drill-through	Pivot	Slice
Group	Sort	Calculate	Summarize

Blend multiple sources for comprehensive analysis

- Data integration in reporting level

- Without loading data into centralized data warehouse

- Slicing/filtering across dimension tables from different sources

- No extra table creation

- No SQL knowledge required

Complex measures without formula expertise

Embedded Analysis

- **Embedding**: seamlessly integrate analytical capabilities into any application with iFrame/div, API, and SDK.

- **Fully customization**: ensure consistent appearance and layout.

- **Security**: multiple single sign-on solutions and JWT.

- **Cloud ready**: cloud deployment and hosting to reduce management costs and complexity.

- **Compatibility**: cross-platform compatibility, support Windows/Linux installation

Data visibility: role-based data access control

- **Model**: determine which models can be accessed/modified for each role.

- **Dimension**: controlled by table visibility for different roles

- **Level and measure**: controlled by column visibility for different roles

- **Member**: controlled by row visibility for different roles
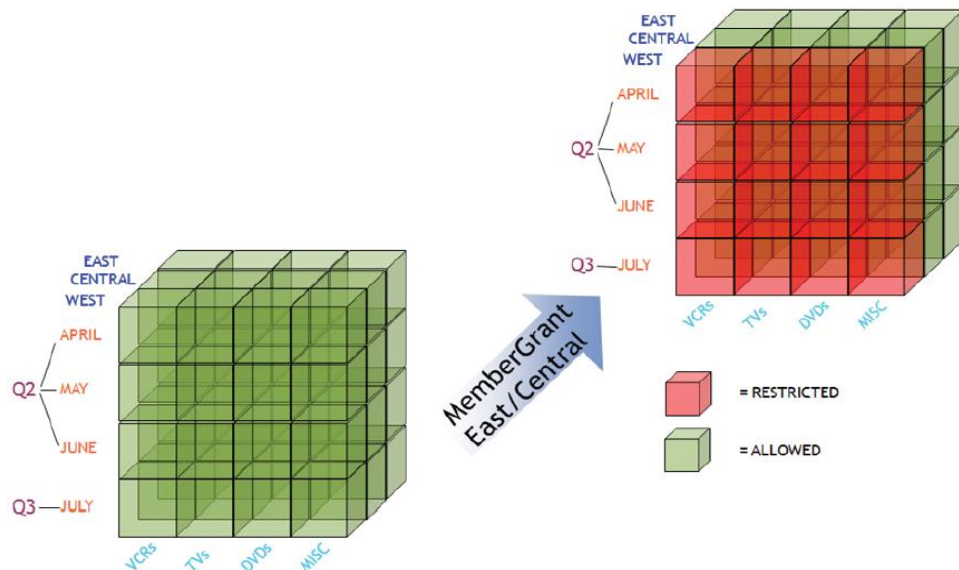
Pre-aggregation and cache to speed up performance

```
<Schema name= Sales >
 <Cube name= Sales >
 …
 </Cube>
</Schema>
```

Model cache

```
[WA.Seattle]
[2012.10.01]
```
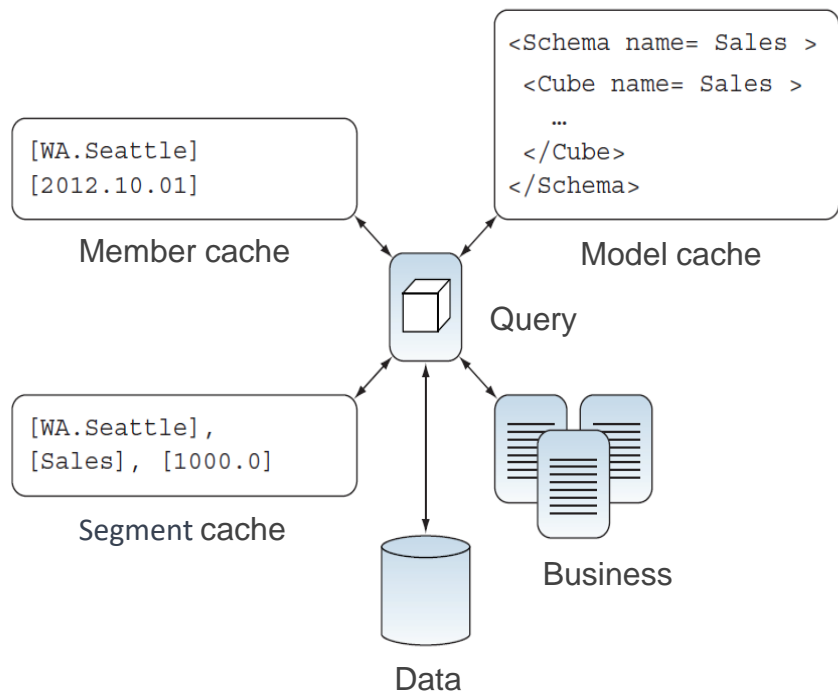
Member cache

Query

```
[WA.Seattle],
[Sales], [1000.0]
```

Segment cache

Business

Data

Pre-aggregation:

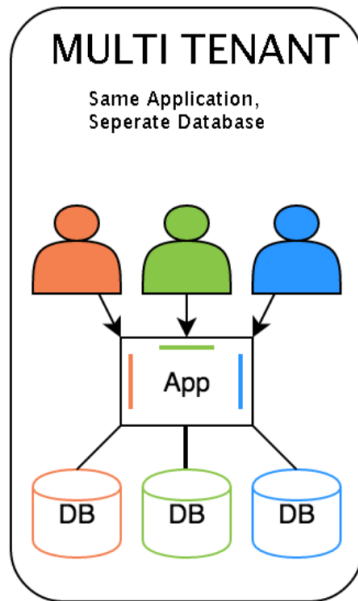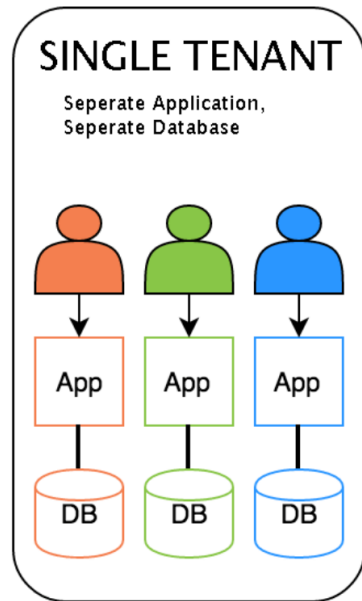- Automatically match and aggregate data based on queries to enhance query performance.

Caching:

- **Schema cache**: keeps schemas in memory so that no re-read is required every time a cube is loaded.

- **Member cache**: stores member values in memory to reduce no. of reads from database

- **Segment cache**: stores previous calculated values in memory to reduce no. of re-read and re-calculations.

Multi-talent architecture for SaaS applications

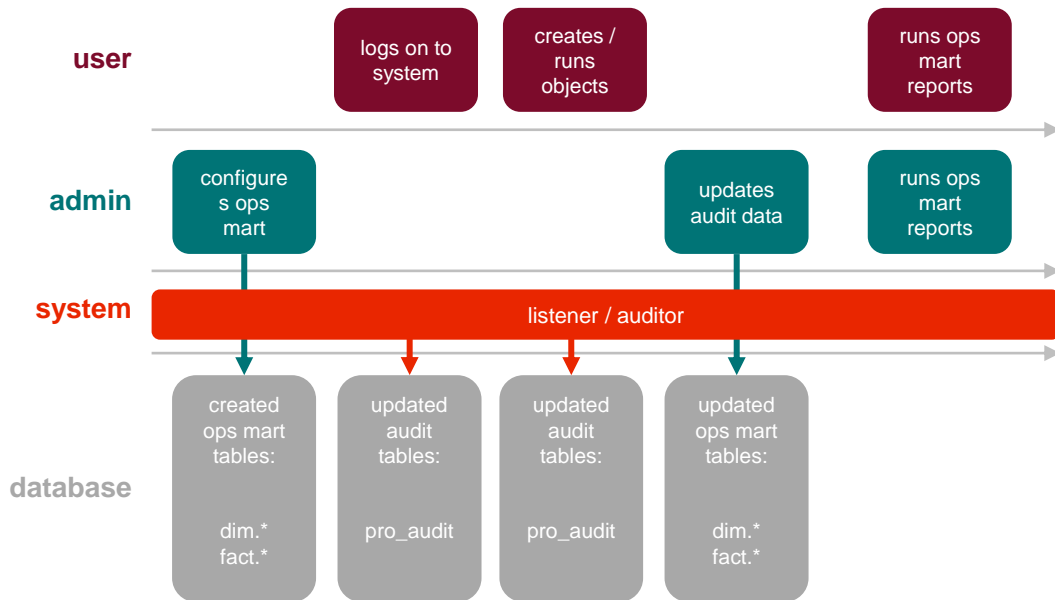- Allow developers and integrators to apply custom security and business rules to control data access.

- Content separation between talents, including data sources, folder structures, and artifacts.

- Different user interface styles for each tenant.

SINGLE TENANT

Seperate Application, Seperate Database

App

App

App

DB

DB

DB

MULTI TENANT

Same Application, Seperate Database

App

DB

DB

DB

Comprehensive Logging and Audit

- Who has logged into the system?

- How many times have they logged in and how much time was spent?

- Which pages have been viewed?

- Which reports encountered errors?

- Which reports have the worst performance?

- Which reports are the most frequently used?

Features summary

Ease to use

- intuitive UI
- drag and drop
- WYSIWYG

Rich visual components

- tables
- charts
- maps
- filters
- supplementary components
- extensible

Flexible layout

- fixed layout support
- layer support
- auto canvas size scaling
- mobile Layout support

Customizable

- extensive styling options
- animation
- customizable CSS

Exploratory analysis

- slicing
- drill down / roll-up / drill-through
- aggregation
- calculated measure
- advanced filtering
- cross-models analysis

Share and collaborate

- export data to Excel, CSV
- export to PDF
- export to image
- hyperlink for content sharing
- email
- column and row visibility control

Embed and Integrate

- iFrame/div embedding
- API and SDK
- message passing from external application
- JSON web token
- SSO

Extensive connectivity

- RDBMS
- big data
- cloud storage
- Restful API
- JDBC driver isolation

THANK YOU

To learn more, please contact us:
marketing@datafor.com.cn