Low Level Report

Analyzing Travel Insurance Data

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Tableau Architecture

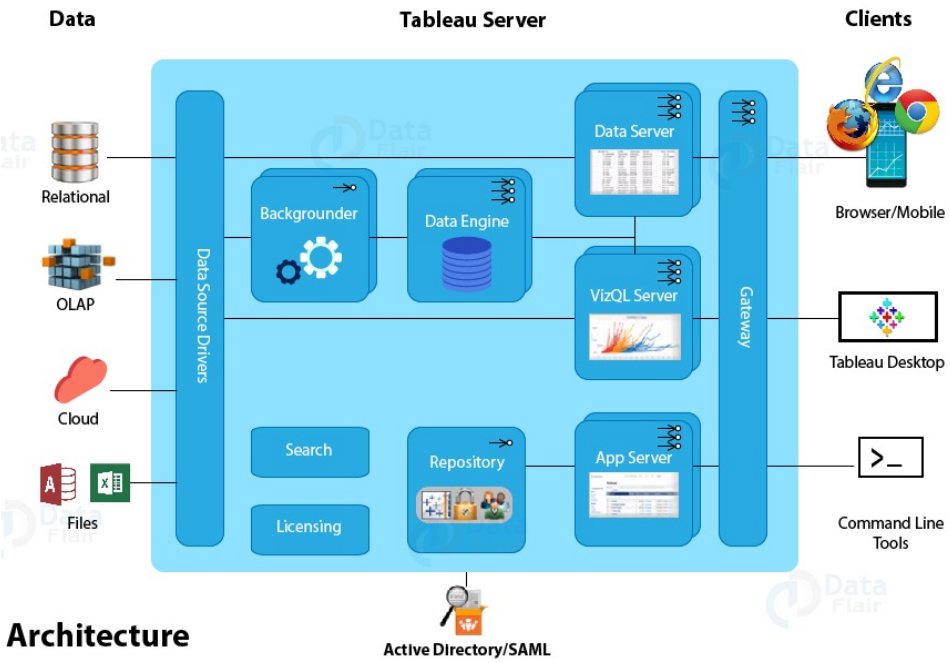

Fig: Tableau desktop structure architecture: img source: https://data-flair.training/blogs/tableau-architecture/

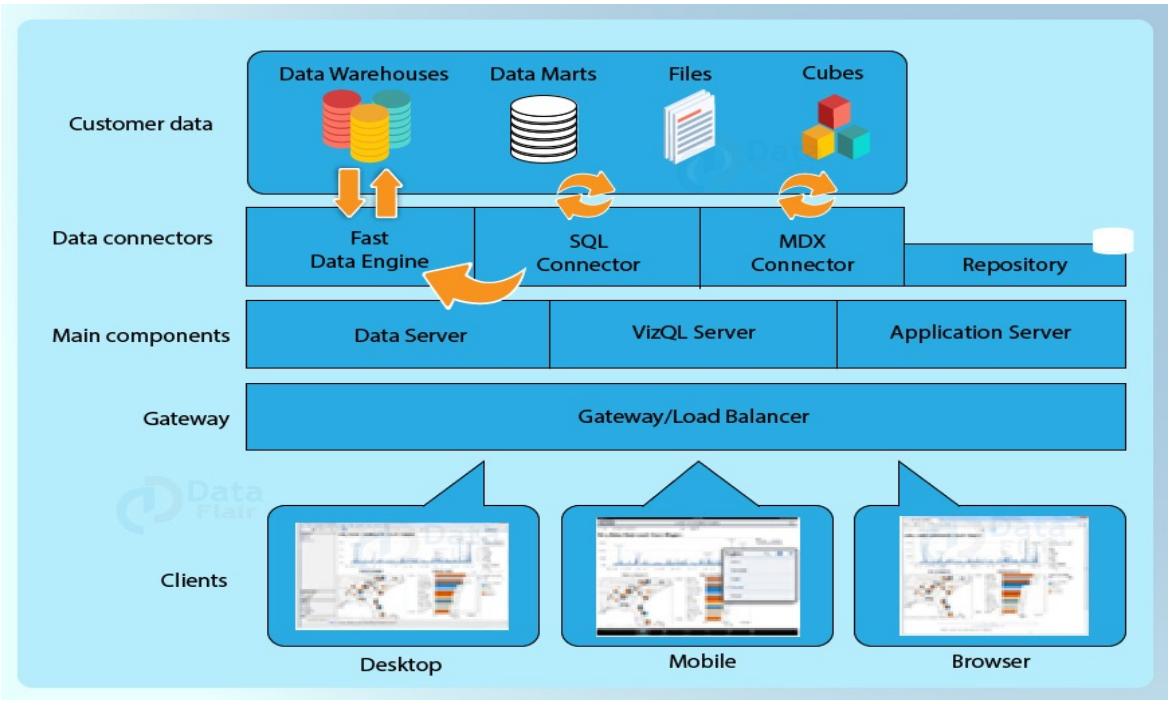

Fig: Tableau server structure architecture: img source: https://data-flair.training/blogs/tableau-architecture/

Here, first we used Tableau desktop architecture and later after posting it to Tableau Public, we user Tableau Server Architecture.

Tableau Server is essentially a communication tool which shares data connections and visualizations with the end-users or clients. So, now that we have learned about the functioning of each component in a Tableau server. Let us understand how all these components work in tandem. For this, we will club the server components into layers or tiers. So, we have five layers or sections in the Tableau Server; customer data, data connectors, main components, gateway, and clients.

The customer data layer contains all sorts of data sources available for a Tableau user like data warehouses, data marts, flat files, and multi-dimensional cubes, relational databases.

Next lies the data connectors layers which consist of a data engine, repository, SQL Connector, and MDX Connector. These components interact directly with the data sources. The Data engine processes the data requested by the user and assigns the data type, decides whether it is a measure or a dimension, and creates TDEs (data extracts). At the background of the data, engine runs an SQL Connector which creates an SQL query for all the user requests and interacts to the data sources. The SQL Connector primarily deals with data marts and flat files. Similarly, the MDX Connector deals with the multi-dimensional cubes.

The next layer comprises of all the main components, essentially the data server which regulates and monitors the functioning of the components of the data connector layer. Along with this, it includes a VizQL Server and Application Server. The application server takes all the user requests coming from Tableau Desktop, mobile or browser for accessing the visualization. It processes the requests and detects the type of request, checks user authorization and grants access accordingly. The VizQL Server is a patented component of Tableau, where VizQL stands of Visualization Query language. It works behind the logic of Tableau visualization and creates the visualization as per your instructions on the dashboard.

The gateway, it acts as a gatekeeper of the Tableau Server and any request or query sent by the client first hits the gateway or load balancer. A gateway is nothing but a primary server which receives the queries and redirects it to an appropriate and available secondary server, known as worker server.

Data Description

The data comprises of travel Insurance data from various travel agencies and airlines, including purchasers’ gender, age, travel destination, duration of travel and likewise.

The rest is displayed in charts – in the video links.