Architecture Design

Amazon Sales Data Analysis

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1. Introduction

1.1 What is Architecture design document?

Architectural design, as defined by IEEE, is "the process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system." Any software that depicts software design must have an architectural design. One of these numerous architectures may be displayed by software created for computer-based systems.

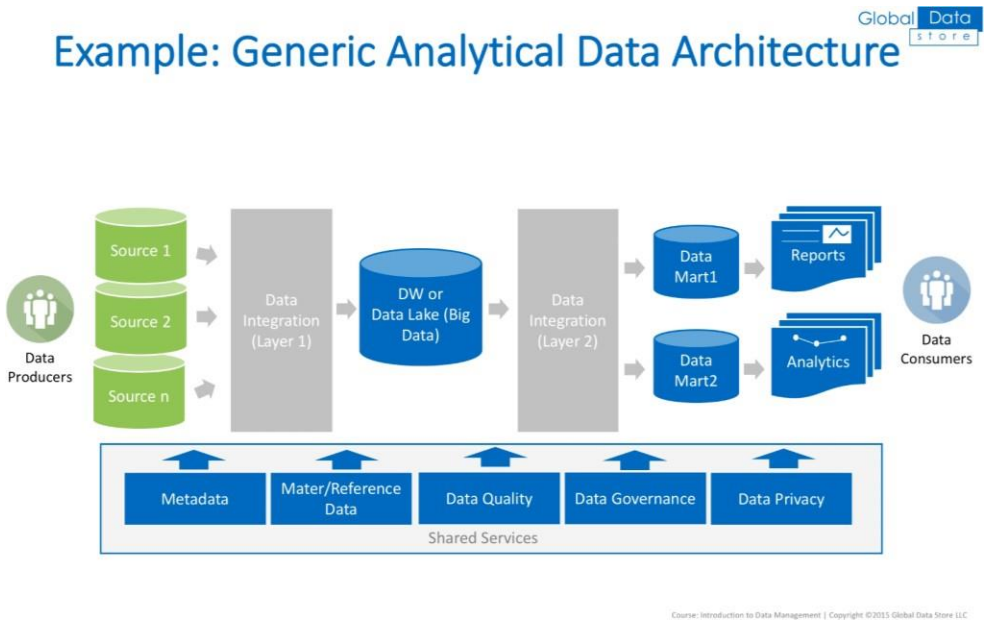
Each style will describe a system category that consists of:

- A set of components (e.g.: a database, computational modules) that will perform a function required by the system.
- The set of connectors will help in coordination, communication, and cooperation between the components.
- Conditions that how components can be integrated to form the system.
- Semantic models that help the designer to understand the overall properties of the system.

1.2 Scope

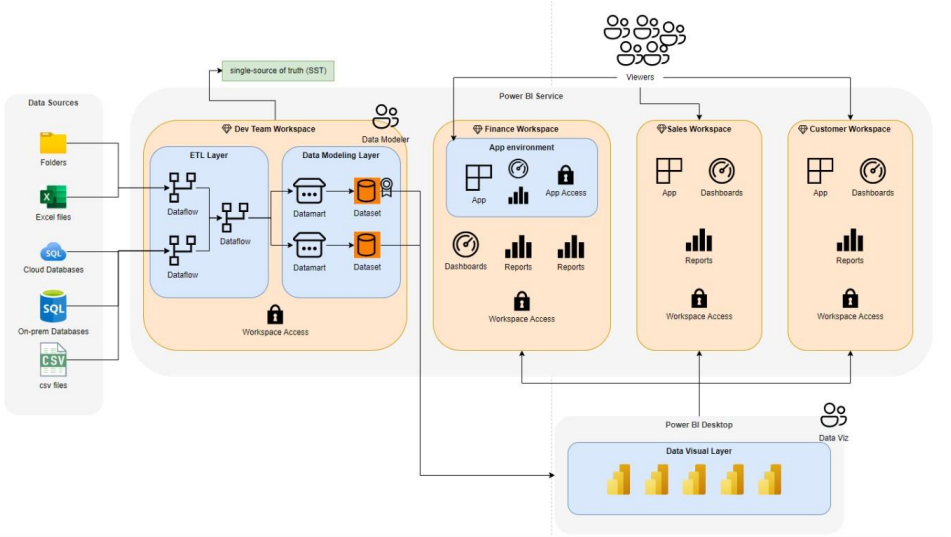
Architecture Design Document (ADD) is a design methodology for buildings that uses a step-by-step refining process. The method is applicable to building data structures, the necessary software architecture, source code, and eventually performance algorithms. In general, the design concepts may be established during the requirement analysis process and then improved upon during the architectural design process.

2. Architecture



2.1 Power BI Architecture:

MS Power BI architecture consists of four major steps that explain the whole process from data sourcing to the creation of reports and dashboards. Various technologies and processes work together to get the required results with extreme precision. Let's see those steps further.



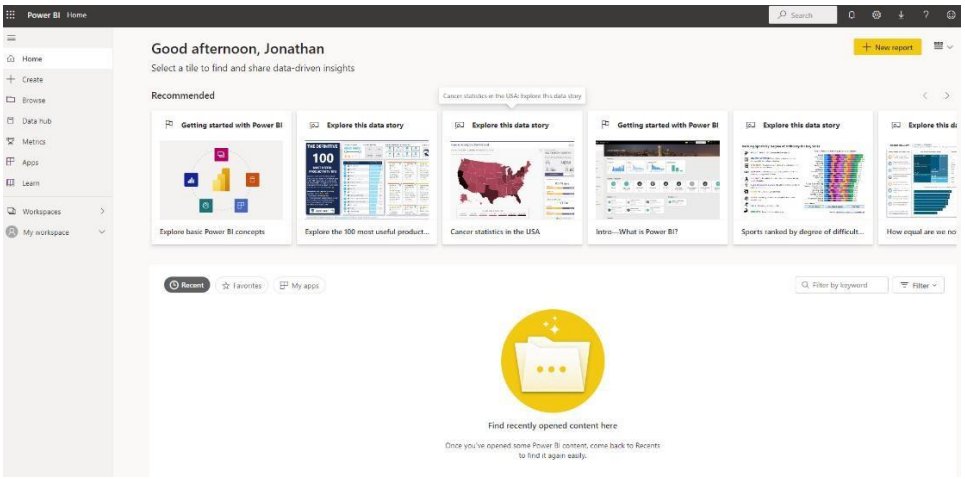
2.2 Power BI Architecture Design:

A service created on top of Azure is Power BI architecture. Power BI can connect to a variety of data sources. You may generate reports and data visualisations on the dataset using Power BI Desktop. On-premise data sources are linked to the Power BI gateway to provide continuous data for reporting and analytics. The cloud services that are utilised to produce Power BI reports and data visualisations are referred to as Power BI services. You can stay connected to their data from anywhere using Power BI mobile applications. For the operating systems Windows, iOS, and Android, Power BI apps are accessible.

2.3 Power BI Service:

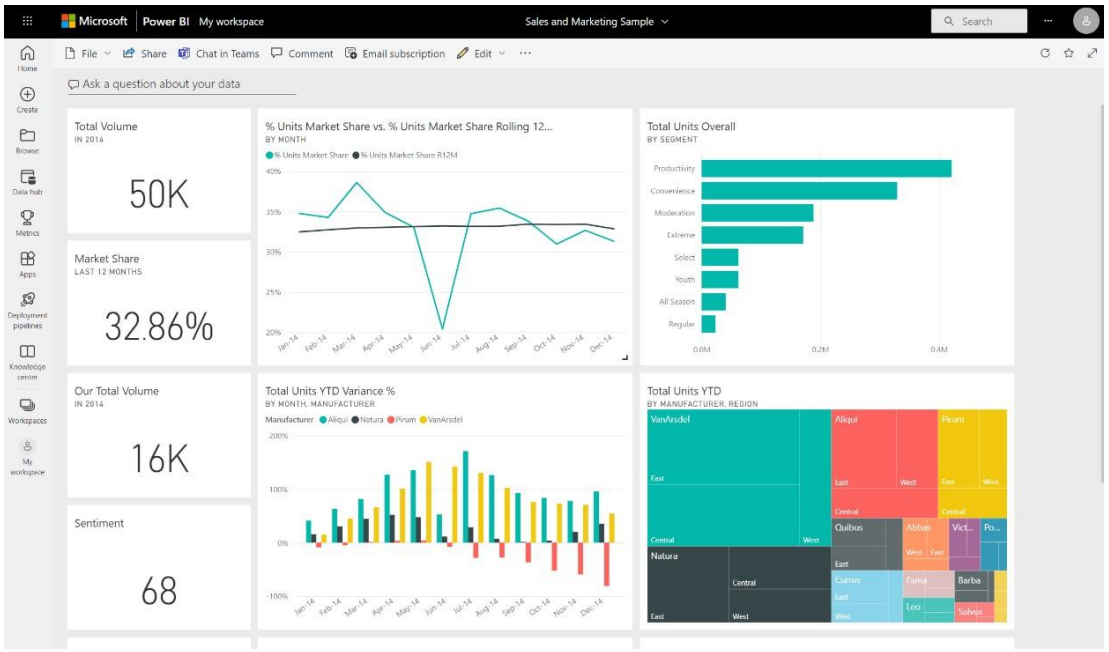
Software as a Service (SaaS) Power BI Service is often referred to as Power BI online. You may ask questions about your data, link to data, and build reports and dashboards.

After logging in, here is how the portal looks:



2.4 Power BI Dashboard:

A Power BI dashboard is a single page, often called a canvas, that uses visualizations to tell a story. Because it's limited to one page, a well-designed dashboard contains only the most important elements of that story. The visualizations on a dashboard come from reports, and each report is based on one dataset. You can think of a dashboard as an entryway into the underlying reports and datasets. Select a visualization to take you to the report that was used to create it.



3.Deployment

Power BI apps are the recommended way of distributing content to free Power BI consumers. You can update the content of your Power BI apps using a deployment pipeline, giving you more control and flexibility when it comes to your app's lifecycle.Create an app for each deployment pipeline stage, so that you can test each update from an end user's point of view. Use the publish or view button in the workspace card to publish or view the app in a specific pipeline stage.