# Low-Level Documentation

Amazon Sales Data Analysis

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| **Done By** | Sri Venkatesh, Yashwanth M, Shashank Prakash Patil |
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## Document Version Control

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# Introduction

What is a Low-Level design document?
The goal of the LDD or Low-level design document (LLD) is to give the internal logic design of the actual program code for the Amazon sales Data analysis . LDD describes the class diagrams with the methods and relations between classes and program specs. It describes the modules so that the programmer can directly code the program from the document.

## Scope:

Low-level design (LLD) is a component-level design process that follows a step-by-step refinement process. The process can be used for designing data structures, required software architecture, source code, and ultimately, performance algorithms. Overall, the data organization may be defined during requirement analysis and then refined during data design work.

Tableau Server is essentially a communication tool that 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). In the background of the data, the engine runs an SQL Connector which creates an SQL query for all the user requests and interacts with the data sources. The SQL Connector primarily deals with data marts and flat files. Similarly, the MDX Connector deals with multi-dimensional cubes.

The next layer comprises 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 an 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 for Visualization Query language. It works behind the logic of
Tableau visualization and creates the visualization as per your instructions on the dashboard.
The gateway 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 that receives the queries and redirects them to an appropriate and available secondary server, known as a worker server.

## Data Description

Sales analysis is a very important part of any company's growth. Here, we can analyze the sales trend of Amazon's monthly, yearly, and product performance-wise. It shows us the growth and withering side of sales of particular products in different countries and also shows the profit of different products particularly. It helps in taking decisions and problem-solving in the future. It is very for the company's growth. So it is very important to do a sales analysis.

Here is the Tableau Dashboard: