

LOW LEVEL DESIGN

Adventure Work Sale Analysis Dashboard

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| Written by | Shivprasad Jadhav |
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DOCUMENT VERSION CONTROL

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1. Introduction

What is Low Level Design Document?

The goal of the Low-level design document (LLDD) is to give the internal logic design of the actual program code for the Sales dashboard. LLDD describes the class diagrams with the methods and relations between classes and programs specs. It describes the modules so that the programmer can directly code the program from the document.

What is 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.

Project Introduction

Business analysis has become one of the crucial elements of any business in the data driven business world. This documentation is done for the adventure work sales analysis by using analytical technique and BI tools like powerbi to understand the current status of business in terms of profit, sales, category, customers and region. The given dataset provides various information about the sales of different product categories

2. Problem Statement:

The objective of this project is to analyse the sales trend of adventure products. This project will help in identifying major markets in terms of region wise sales, trending products and profit.

3. Dataset Information:

- Sales Order: Unique sales order number with sales order
- Sales Territory: Sales Region, Country and Group
- Sales: Sales details along with unit price, product cost for respective SO, customer, date and territory
- Reseller: Unique reseller details with their territory & business type
- Date: Date as per client's FY range
- Product: Product details with category & sub0category
- Customer: Unique customer details with their Cust Id and territory

4. Architecture:

1. Problem Definition
2. Data Collection
3. Data Pre-processing/Data Cleaning
4. Data Exploration
5. Modelling
6. Deployment

5. Architecture Diagram:

5.1. Raw Data Collection

The dataset is an open source and taken from iNeuron internship portal

5.2. Data Pre-Processing and Transformation

Before building any model, it is crucial to perform data pre-processing and transformation to feed the correct data to the model to analyse and visualise the data.

The process includes:

Handling Null/Missing Values:

Excluded missing values from the customer, reseller, sales datasets.

Data Transformation:

- From raw dataset, we must derive some columns which were necessary for data analysis and dashboard building.
- Like City and State columns were derived from territory dataset; Fiscal year, Fiscal Quarter were derived from date datasets.
- Based on the Product key, Category Column was created which specified the Category of product like Accessories, Bikes, Clothing, etc.

5.3. Reporting

Reporting is a most important and underrated skill of a data analytics field. Because being a Data Analyst you should be good in easy and self-explanatory report because your model will be used by many stakeholders who are not from technical background.

- High Level Design Document (HLD)
- Low Level Design Document (LLD)
- Architecture
- Wireframe
- Detailed Project Report
- Power Point Presentation

5.4. Modelling

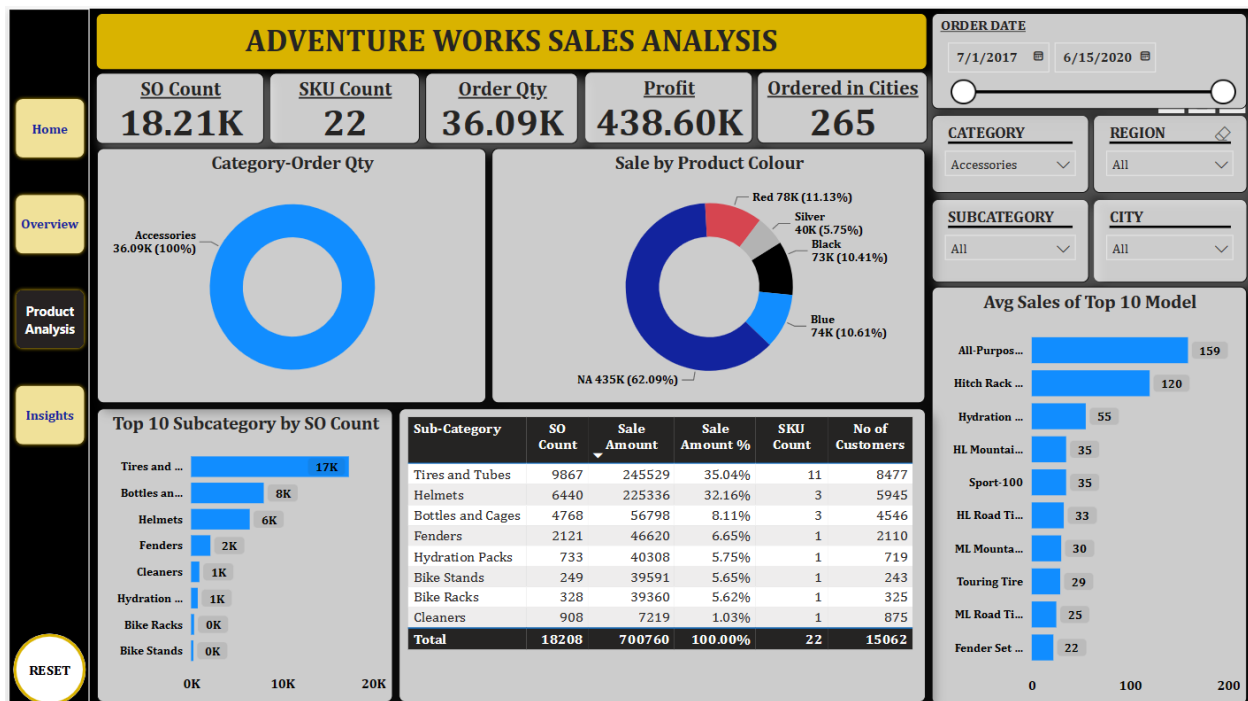
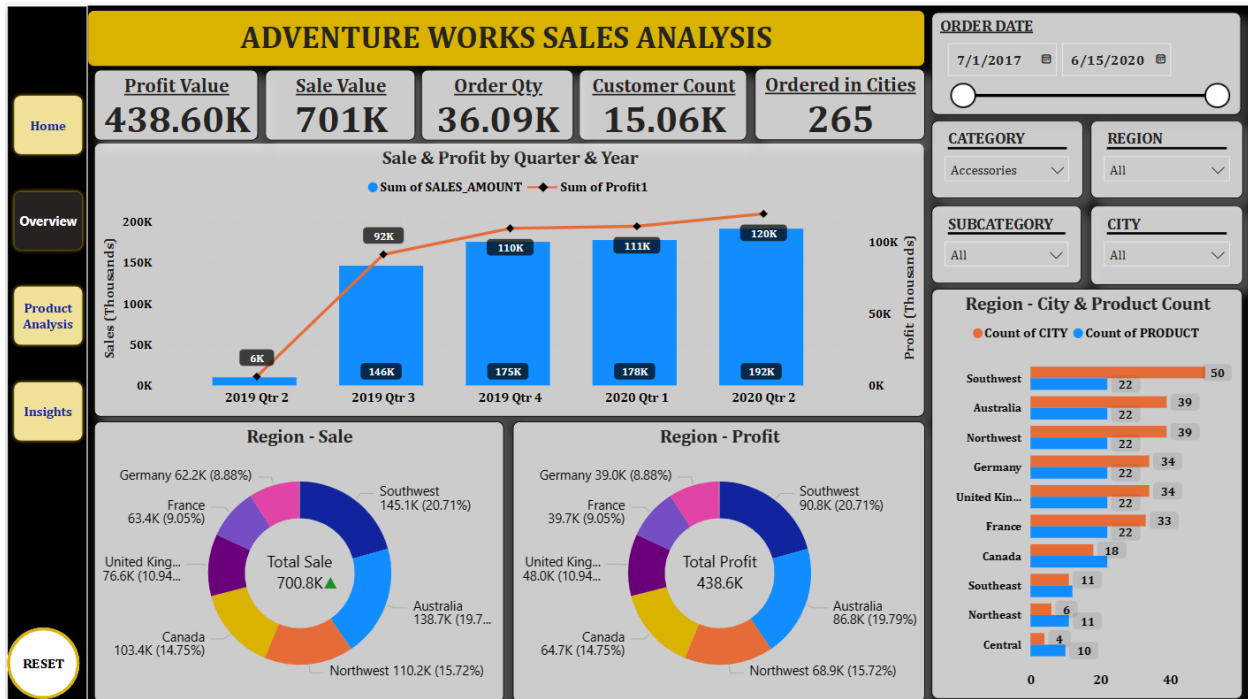
Data Modelling is the process of analysing the data objects and their relationship to the other objects. It is used to analyse the data requirements that are required for the business processes. The data models are created

for the data to be stored in a database. The Data Model's focus is on what data is needed and how we must organize data rather than what operations we must perform.

5.5. Deployment

Created Dashboard as shown below:

For Accessories category



For Accessories category

