Low Level Design

Analyzing world's best wine reviews dataset

Written By	Harshvardhan Kushwaha
Document Version	1
Last Revised Date	30-11-2022

DOCUMENT CONTROL

Change Record:

VERSION	DATE	AUTHOR	COMMENTS
1.0	30-11-2022	Harshvardhan Kushwaha	First Version of Complete HLD

Reviews:

VERSION	DATE	REVIEWER	COMMENTS

Approval Status:

VERSION	REVIEW DATE	REVIEWED BY		APPROVED BY	COMMENTS

Contents

DOCUMENT CONTROL 2
1. Introduction 4
1.2 Scope 4
2. Architecture 5
3. Architecture Description 7
3.1. Data Description 7
3.2. Data Transformation 8
4. Data to Insights through Visualizations and Data Analysis 9
5. Deployment in Power BI Service 11

1. Introduction

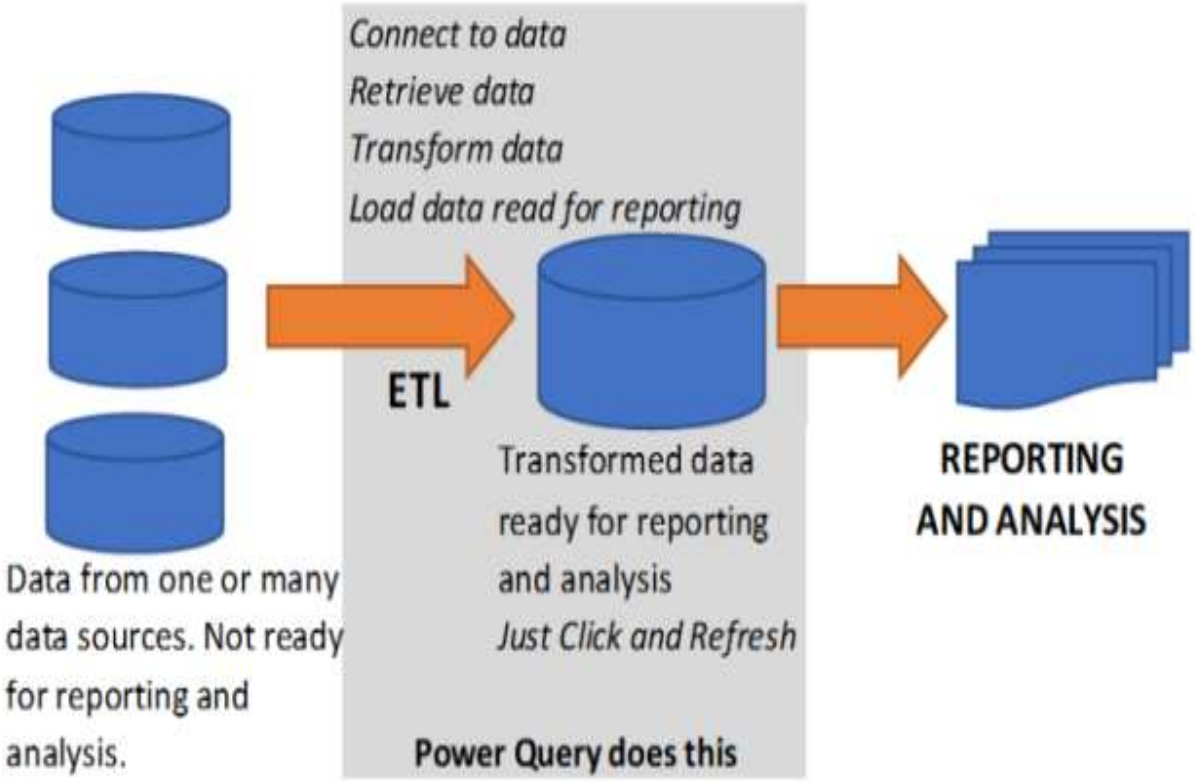
1.1 What is Low-Level design document?

The goal of the LDD or Low-level design document (LLDD) is to give the internal logic design of the actual program code for the House Price Prediction dashboard. LDD 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.

1.2 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.

2. Architecture



ETL (extract, transform and load) in Power BI use the preparation of data sets for analysis by removing irregularities in the data.

It also involves data visualization to draw meaningful patterns and insights. Based on the results of ETL, companies also make business decisions, which can have repercussions later.

- If ETL is not done properly then it can damage the business a lot in many ways such as loss of clients which whom we are working, the decision making will go completely wrong, and many more issues.
- If done well, it may improve the efficacy of everything we do next.

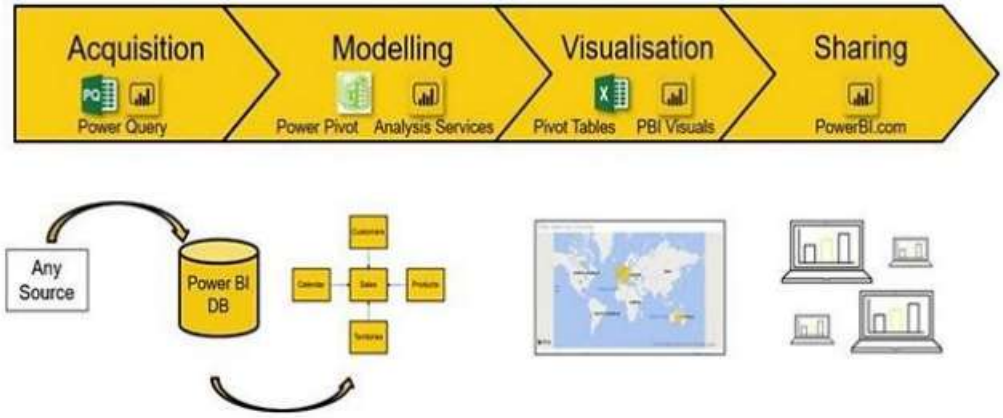
Below are the following steps to follow for ETL:

1. Data Sourcing

2. Data Cleaning

3. Data Modelling

4. Data Visualization



3. Architecture Description

3.1. Data Description

The dataset is in CSV (Comma Separated Values) format. MS Excel is used to load the data. This dataset is publicly available for research purposes.

Title: Wine-reviews.csv

Source: Provided by iNeuron Team

- It includes a single file in ".csv" format.
- Number of rows/records: 29666
- Number of attributes: 13(used only 10)

The following attributes describes the dataset.

- Country
  * Description: Name of Country
  * Datatype: string

- Points
  * Description: Points rewarded
  * Datatype: Integer

- price
  * Description: Price of the wine
  * Datatype: Integer

- Province
  * Description: Province of the country
  * Datatype: string

- region_1
  * Description: Region name 1
  * Datatype: String

- region_2
  * Description: Region name 2
  * Datatype: String

- variety
  * Description: Variety of the wine
  * Datatype: String

- Winery
  * Description: Winery Name
  * Datatype: String

- Taster Name
  * Description: Taster Name of the wine
  * Datatype: String

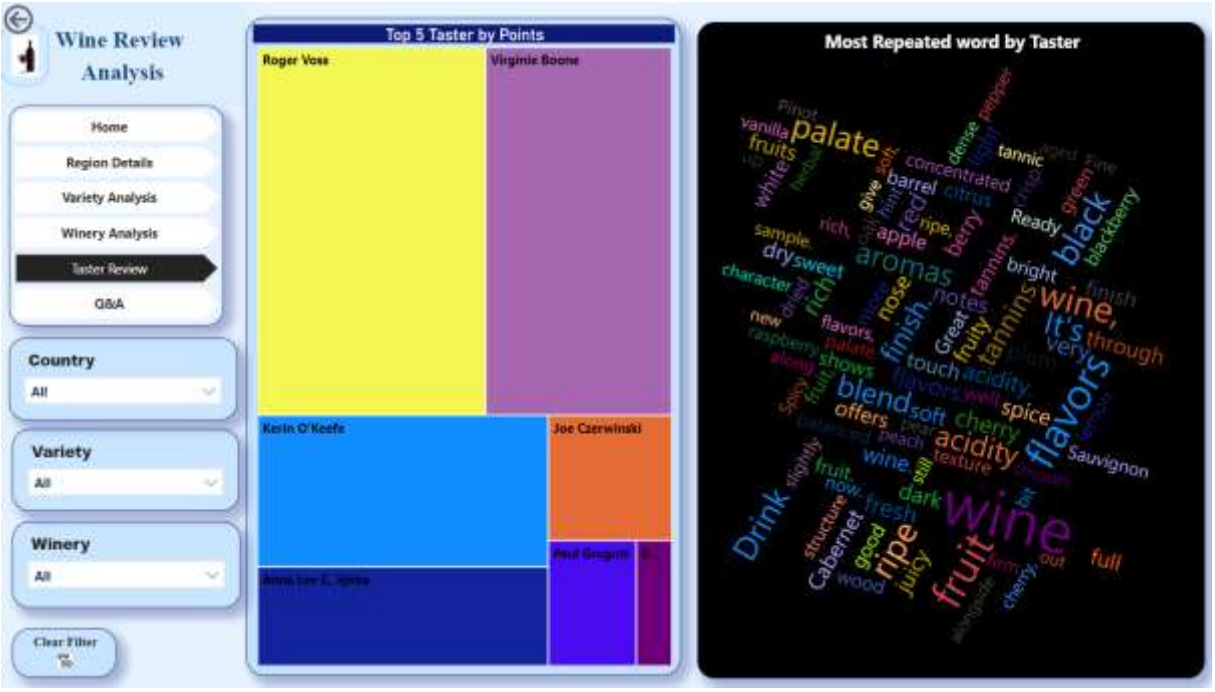
- Description
  * Description: Description about the wine
  * Datatype: String

3.2. Data Transformation

In the Transformation Process, we will convert our original datasets with other necessary attributes format using power query editor.

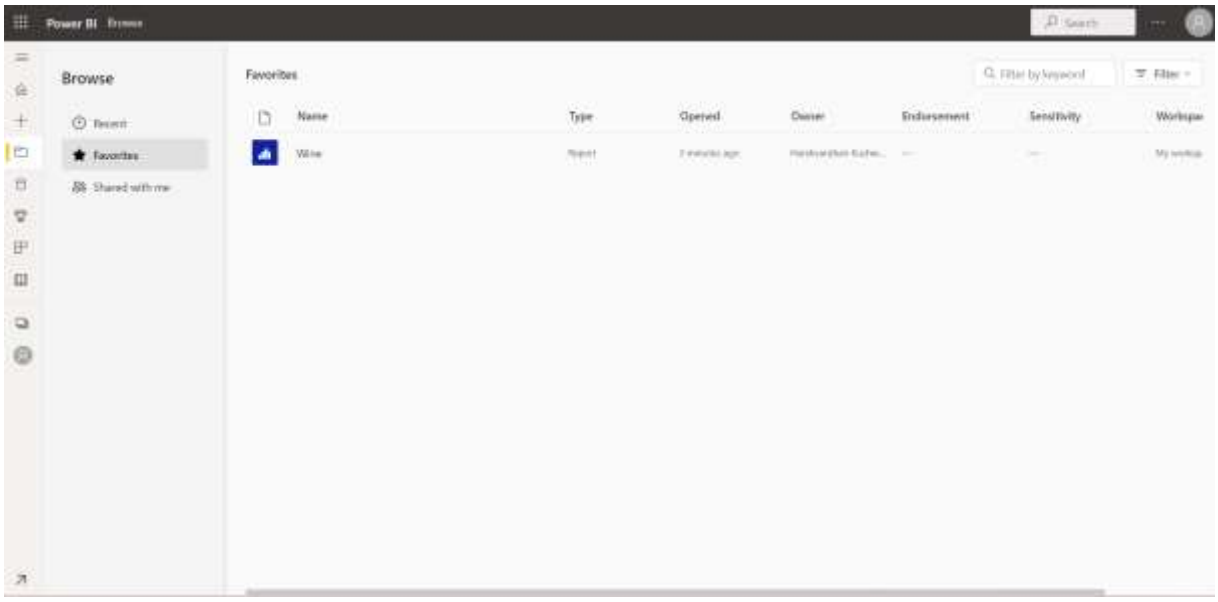
We can also create required measures as per the requirements.

4. Data to Insights through Visualizations and Data Analysis


Wine Review Analysis
Home
Region Details
Variety Analysis
Winery Analysis
Taster Review
Q&A
Country
All
Variety
All
Winery
All
Clear Filter
Top 5 Taster by Points
Roger Voss
Virginie Boone
Kerin O'Keefe
Joe Czerwinski
Most Repeated word by Taster

5. Deployment in Power BI Service

To publish report click on Publish icon under home tab, then search for the workspace in which you want to publish it and hit enter.



Your report is published.