Low Level Design (LLD)

Global Energy Trade Analysis (1990-2014)

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Content:

Problem Statement

One of the most unique power bi projects ideas is the Global Energy Trade Analysis. This project concept includes various topics concerning global energy exchange and production. It addresses several topics, such as the expansion of wind energy, energy consumption as a different basis for comparing national economies, etc.

The resulting dashboard could display total energy statistics on production, commodity exchange, and usage of primary and secondary energy, conventional and non-conventional energy sources, and new and renewable energy sources. For the dashboard, you can use Power BI visualization types such as Bar Charts, Flow Maps, Cards for the overview page, Ribbon Charts, Treemaps, Bar Charts for the energy production and exchange pages, etc.

Do ETL: Extract-Transform-Load the dataset, and find for me some information from this large data. This is form data mining.

Create Power BI dashboard as well as reports.

Do your own research and come up with your findings.

Scope

Low Level Design (LLD) is a component-level design process that follows a step-by-step refinement process. This process can be used for designing data structures, required software architecture, source code, and performance algorithms. Overall, the data organization may be defined during the requirement analysis and then refined during the data design work. This study demonstrates the how different analysis help out to make better business decisions and help analyse the energy production country wise, which can be lead to better decision making.

Architecture

Data Description

country_or_area: showing all the country in the world.

commodity_transaction: showing the commodity or products with transaction means imports, exports, production, consumptions, etc.

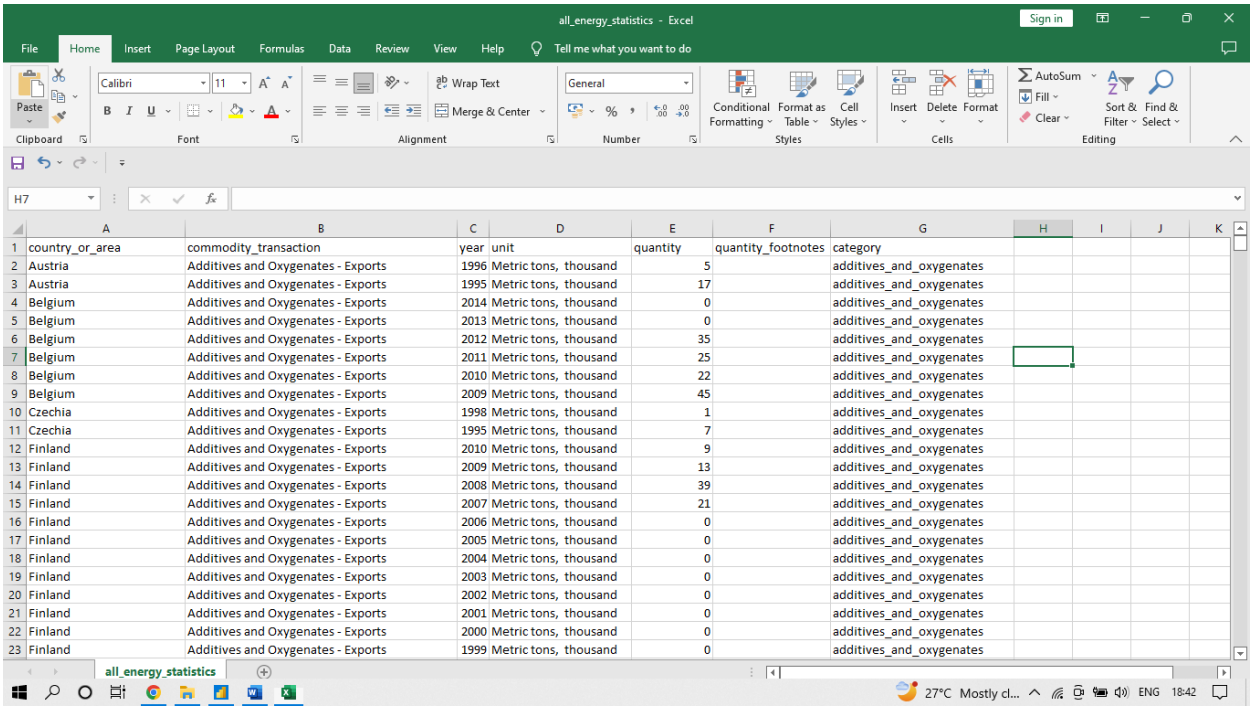
year: showing the year from 1990 to 2014.

unit: showing the unit (e.g., terajoules, kilowatt, etc.)

quantity: showing the quantity.

quantity_footnotes: nothing here, blanks values are there.

category: showing the product category.



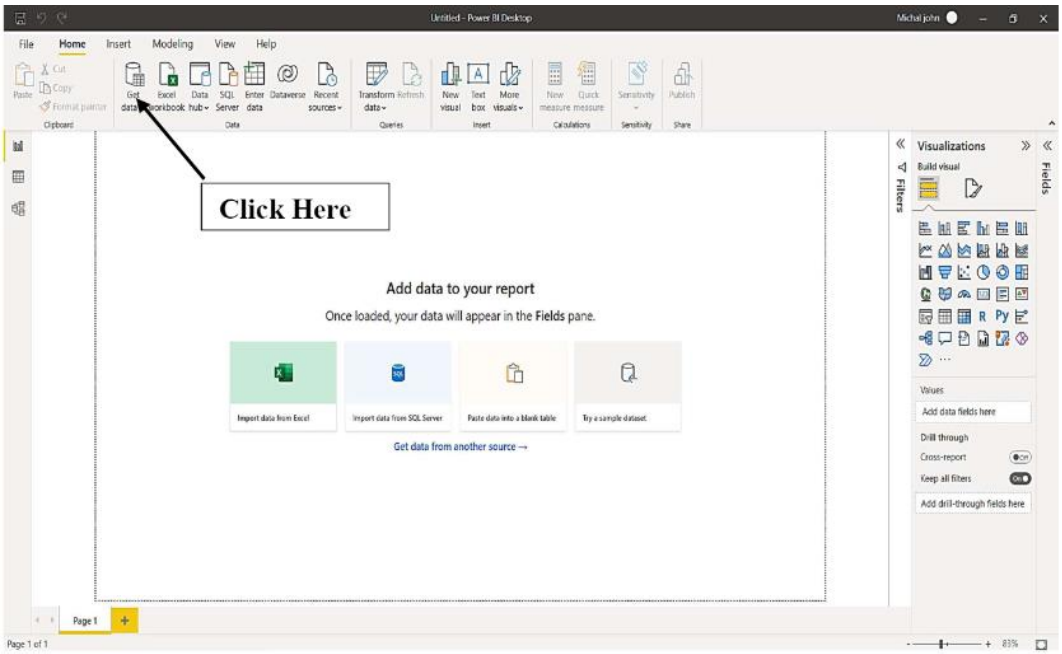
all_energy_statistics - Excel

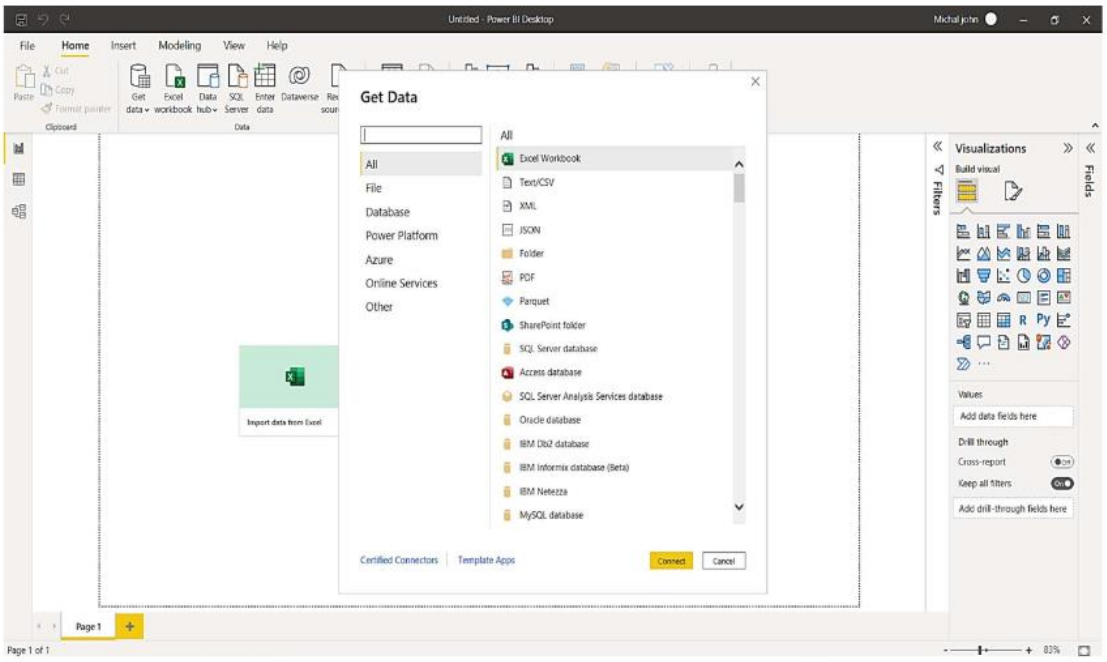
	A	B	C	D	E	F	G
1	country_or_area	commodity_transaction	year	unit	quantity	quantity_footnotes	category
2	Austria	Additives and Oxygenates - Exports	1996	Metric tons, thousand	5		additives_and_oxygenates
3	Austria	Additives and Oxygenates - Exports	1995	Metric tons, thousand	17		additives_and_oxygenates
4	Belgium	Additives and Oxygenates - Exports	2014	Metric tons, thousand	0		additives_and_oxygenates
5	Belgium	Additives and Oxygenates - Exports	2013	Metric tons, thousand	0		additives_and_oxygenates
6	Belgium	Additives and Oxygenates - Exports	2012	Metric tons, thousand	35		additives_and_oxygenates
7	Belgium	Additives and Oxygenates - Exports	2011	Metric tons, thousand	25		additives_and_oxygenates
8	Belgium	Additives and Oxygenates - Exports	2010	Metric tons, thousand	22		additives_and_oxygenates
9	Belgium	Additives and Oxygenates - Exports	2009	Metric tons, thousand	45		additives_and_oxygenates
10	Czechia	Additives and Oxygenates - Exports	1998	Metric tons, thousand	1		additives_and_oxygenates
11	Czechia	Additives and Oxygenates - Exports	1995	Metric tons, thousand	7		additives_and_oxygenates
12	Finland	Additives and Oxygenates - Exports	2010	Metric tons, thousand	9		additives_and_oxygenates
13	Finland	Additives and Oxygenates - Exports	2009	Metric tons, thousand	13		additives_and_oxygenates
14	Finland	Additives and Oxygenates - Exports	2008	Metric tons, thousand	39		additives_and_oxygenates
15	Finland	Additives and Oxygenates - Exports	2007	Metric tons, thousand	21		additives_and_oxygenates
16	Finland	Additives and Oxygenates - Exports	2006	Metric tons, thousand	0		additives_and_oxygenates
17	Finland	Additives and Oxygenates - Exports	2005	Metric tons, thousand	0		additives_and_oxygenates
18	Finland	Additives and Oxygenates - Exports	2004	Metric tons, thousand	0		additives_and_oxygenates
19	Finland	Additives and Oxygenates - Exports	2003	Metric tons, thousand	0		additives_and_oxygenates
20	Finland	Additives and Oxygenates - Exports	2002	Metric tons, thousand	0		additives_and_oxygenates
21	Finland	Additives and Oxygenates - Exports	2001	Metric tons, thousand	0		additives_and_oxygenates
22	Finland	Additives and Oxygenates - Exports	2000	Metric tons, thousand	0		additives_and_oxygenates
23	Finland	Additives and Oxygenates - Exports	1999	Metric tons, thousand	0		additives_and_oxygenates

Connect Data to Power BI

First of all, open Power BI Desktop in your desktop. At first screen there is a get data tab click on it then it shows the list of sources then click on that source which you want to connect after connection browser the data then load into Power BI desktop.

Low Level Design





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