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Business intelligence tools

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What is business intelligence?

- Business intelligence is a set of processes and techniques to analyze raw data and extract information that helps drive business solutions.

Business intelligence tools

- In order to achieve the goals of business intelligence, we have a set of business intelligence tools that make the work easy.

- There are plenty of business intelligence tools available in the market, so how do you choose which one is the best for your organization?

Thought spot

- Thought spot is a U.S based company that provides business intelligence software.

- Thought spot allows users to obtain company 's data and analyze them in a matter of seconds!

Features

- Thought spot lets its users look up for data within the search bar. This makes the tool more accessible.
  Search-Based Interface – Users can type queries to search for data.
- Instant Chart Creation – Generates charts instantly based on queries.
- Unlimited Data Scaling – Scales according to business needs.
- User-Friendly Interface – Easy to use for users with little to no training.
- Companies using thought spot
- Walmart
- RBC
- 7 ELEVEN
- Exxon Mobile

SAS BI
Statistical analysis system (SAS)

Statistical analysis system (SAS) is a software developed by the SAS institute. This software is used for data analysis(Data analysis, is a process for obtaining raw data, and subsequently converting it into information useful for decision-making by users. Data, is collected and analyzed to answer questions, test hypotheses, or disprove theories) and visualization.

Features

- SAS is easy to use. SAS lets its users explore, create and share data effortlessly.
- SAS enables better data analysis using SAS, SQL and automatic code generation.
- SAS allows you to integrate with other open source platforms .
- SAS provides a high level of security for the organizations data.

Qlik

- QlikView is our classic guided analytics solution. QlikView lets you rapidly develop and deliver interactive guided analytics applications and dashboards. You can ask and answer your own questions and follow your own paths to insight. You and your colleagues can reach decisions collaboratively.

- Qlik is a platform which provides data integration,business intelligence and analytics.

- **Dashboard**

- A dashboard is an information management tool that receives data from a linked database to provide data visualizations. It typically offers high-level information in one view that end users can use to answer a single question. In many cases, they can be configured to provide specific information to the end user and how this information is visualized. E.g., Numbers, charts, or graphs.

Qlik

- Two popular BI tools of Qlik are Qlik view and Qlik sense.

- Qlikview provides OLAP (OLAP enables fast, flexible multidimensional data analysis for business intelligence (BI) and decision support applications that use data warehouses) to perform analytical operations

- Both Qlik view and Qlik sense provides its users ETL features.

- ETL (Extract, Transform, and Load) is a three-step process that involves **extracting** data from various source systems, **transforming** it into a useful format, and **loading** it to a target database destination for business intelligence and reporting.

- The first step of the ETL process is **data extraction**.

- The second step of the ETL process is **data transformation**

- The third step of the ETL process is **data loading**.

Qlik sense Features

- Qlikview requires data filters but it is not required in Qlik sense.

- Qlik sense has the features of data story telling but it is not available in Qlik view.

- Qlik Sense is a complete data analytics solution that helps you tackle even the most complex analytics challenges. The complete set of open APIs(API, short for Application Program Interface, is a set of routines, protocols, and tools for building software applications. In business intelligence, APIs may be used to enable end-users to directly update source systems.) enables you to fully customize analytics solutions.

Tableau

- Tableau is a powerful BI tools which manages the data flow and turns data into actionable information. Data analysis and visualization is quick with tableau.

- Features

- Tableau can be connected to 40 different data sources,it can handle large amounts of data easily.

- Tableau has the features of drag-n-drop,which allows its users to create interactive visuals quickly. It can also build interactive dashboards with just a few clicks.

- Tableau also allows its users to customize dashboards specifically for a device.

- No coding knowledge is required to work on tableaue,as tableau provides in built table calculations.

Companies using tableau

- Companies using tableau
- Amazon
- Walmart
- Furrari
- Capgemini
- Linked in
- Other BI tools
- Oracle,pentaho,analytics

Power BI

- Power BI is a technology-driven business intelligence tool provided by Microsoft for analyzing and visualizing raw data to present actionable information. It combines business analytics , data visualization, and best practices that help an organization to make data-driven decisions.

- Power BI is a business analytics service provided by Microsoft that lets you visualize your data and share insights. It converts data from different sources to build interactive dashboards and Business Intelligence reports.

Power BI

- Power BI is a business analytics service provided by Microsoft that lets you visualize your data and share insights.

- Power BI makes data visually appealing. It has easy drag and drop functionality with features that allow you to copy all formatting across similar visualization.

- It can also be used with azure. Using power BI with Azure allows you to analyze and share large volume of data.

- Power BI fetches data from factory sensors and social media sources to get access to real time analytics.

- Sets up automatic data refresh & rapidly publishes reports,allowing all the users to avail the latest information.

Companies using power BI

- Companies using power BI
- Nestle
- NTT Data
- Accenture
- cap Gemini

Why use excel?

Excel proves to be a great platform to perform various mathematical calculations on large datasets.

Various features in excel like searching ,sorting ,filtering make it easier for you to play with data.

Excel allows you to beautify your data and present it in the form of charts,tables and data bars

Reporting ,accounting and analysis can be performed with the help of excel

Excel can help you with your task lists,calendars and goal planning worksheets.

Excel provides good security for your data. Excel files have the feature of password protection ,this way your information is safe.

Is BI the same as data science?

- Business intelligence is focused on the present while data science is looking towards the future and predicting what might happen next.

- BI works with historical data in order to determine a responsive course of action while data science creates predictive models that recognize future opportunities.

- Business intelligence (BI) and data science are both data-focused processes, but there are some key differences between the two.

- In general, business intelligence focuses on analyzing past events, while data science aims to predict future trends.

- Data science requires a more technical skill set compared to business intelligence.

Is BI the same as data science?

- Business intelligence converts data into information that can support business leaders in decision-making.

- Data science involves creating forecasts by analyzing the patterns behind the raw data.

- Business intelligence is backward-looking that discovers the previous and current trends, while data science is forward-looking and forecasts future trends.

- Compared to business intelligence, data science is able to manage more dynamic and less organized data. Yet, it also requires more technical skills and resources.

- The data analysts

- Data analysts are responsible for building data models and metrics,which facilitate analysis and visualization.

Data analysis tool

What is power Pivot?

Power Pivot is an in-memory data modeling component that provides highly compressed data storage and extremely fast aggregation and calculation. It is also available as part of Excel and can be used to create a data model in an Excel workbook. Power Pivot can load data by itself or can load data into Power Query. It is very similar to the SSAS (SQL Server Analysis Services) tabular model, which is similar to the server version of Power Pivot.

Power pivot brings business intelligence and analysis capabilities into the heart of microexcel.
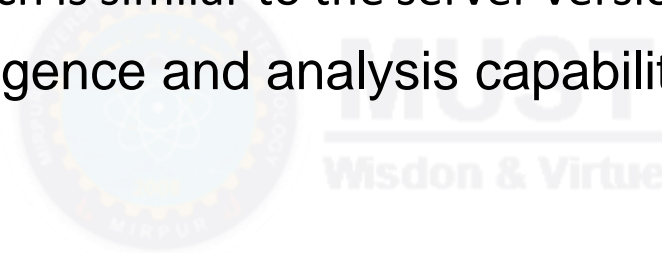
The key benefits are…
Create pivot tables that combine multiple sources.
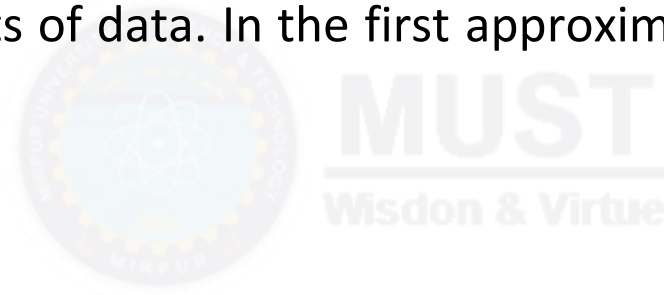
No restriction on data rows

Eliminate intensive lookups

Powerful time period companies functions.

Data analysis tool

- **Power View** is an interactive visualization tool that provides users with a drag-and-drop interface. It allows them to quickly and easily create data visualization in their Excel workbooks (using the Power Pivot data model).

- Power Pivot is also an add-in for Microsoft Excel but is intended a bit for other tasks. If Power Query is focused on importing and processing, then Power Pivot is needed mainly for complex analysis of large amounts of data. In the first approximation, you can think of the Power Pivot as pumped pivot tables.

- **How Power Pivot works**
- The general principles for working In Power Pivot are as follows:
- First, you load data into Power Pivot — 15 different sources are supported: common databases (SQL, Oracle, Access …), Excel files, text files, data feeds. Besides, you can use Power Query as a data source, which makes analysis almost omnivorous.
- The links are configured between the loaded tables or, as they say, the Data Model is created. This will allow in the future to build reports on any fields from the existing tables as if it was a single table.
- If necessary, additional calculations are added to the Data Model with the help of calculated columns (an analog of a column with formulas in a smart table) and measures (an analog of a calculated field in summary). All this is written in a special internal Power Pivot language called DAX (Data Analysis eXpressions).

Features of Pivot

- The reports of interest to us in the form of pivot tables and charts are built on the Excel sheet of the Data Model.
- Power Pivot has several features that make it a unique tool for some tasks:
- In Power Pivot, there is no limit on the number of lines (as in Excel). You can load tables of any size and work with them calmly.
- Power Pivot is very good at compressing data when loading it into the Model. A 50 MB source text file can easily turn into 3-5 MB after downloading.
- Since Power Pivot is "under the hood," in fact, a full-fledged database engine, it copes with large amounts of information very quickly. Need to analyze 10-15 million records and build a consolidated one? And all this on an old laptop? No problem!

THANKS