



Power BI



Power BI Tutorial for Beginners

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Amit Thinks 



Power BI

POWER BI - INTRODUCTION & FEATURES

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POWER BI - INTRODUCTION



Power BI is a business intelligence tool that gets data from different sources, such as Excel, JSON, PDF, etc., and can be analyzed and converted to meaningful reports, dashboards, charts, etc. This assists in making business decisions by tracking performance.

Power BI was developed by Microsoft in 2011 to analyze and visualize a large amount of data and generate meaningful insights helpful for organizations in scaling. Here is what we will discuss in this lesson:

- Tasks of a Data Analyst
- What is BI
- What is Power BI
- Features of Power BI
- Why Power BI

TASKS OF A DATA ANALYST



Power BI

The role of a Data Analyst is quite crucial for any organization. The Data Analyst understands the data and gets valuable insights from it that help track the performance and scale the organization. The data analysis process includes:

- **Data Preparation:** The first step is to prepare the data. It includes profiling, cleaning, and transforming the data. This makes the data ready. Data preparation takes the raw data and converts it into useful, easy-to-understand information. This process fixes the inaccurate data, identifies missing data, corrects the wrong data, etc.
- **Model:** The data gets ready to be modeled after the preparation step. This determines how the tables are related to each other by defining and creating relationships between them.

TASKS OF A DATA ANALYST



- **Visualize:** The graphics are more easy to understand than the textual data, correct? The visualization steps bring data to life and represent it in the form of reports. This makes it quite easier to understand and make better decisions. This step designs and creates reports for accessibility.
- **Analyze:** Analyzing the data helps in finding insights, identifying patterns, and predicting outcomes. Interpret the information displayed in the report with the analysis step. With advanced analytics, business decisions become easier with meaningful results.
- **Management:** If you are the Data Analyst of an organization, then you need to manage the reports, dashboards, semantic models, etc. of the Power BI. You need to supervise the sharing the distribution of reports and dashboards.

WHAT IS BI ?



Power BI

What is BI

Business intelligence (BI), as the name suggests is to analyze the data and display it in a way it speaks i.e., in the form of dashboards, charts, reports, etc. Such a form of data that is easy to understand helps the founders to track performance, remove any issues, and prepare themselves for market changes.

WHAT IS POWER BI ?



What is Power BI

Power BI is a tool that helps people understand a large amount of data and build reports.

PowerBI is a collection of components:

- Power Query (ETL tool to extract transform, and load the data i.e., clean the data from null values, empty records, and unclean data for visualization)
- Power Pivot (Data Modelling – connect data from multiple data sources and create relationships)
- Power Views (Create 200+ charts i.e. visualization)
- Power BI Service (allows users to communicate with reports)

Also, filter data from the visual (keep only and exclude)

Example: Export data from the visual i.e. filter data from a chart and export it to CSV.

FEATURES OF POWER BI



- **Data Visualization:** Create interactive reports & dashboards with a wide range of visualizations.
- **Data Connectivity:** Connect to various data sources like Excel, databases, and cloud services.
- **Custom Visualizations:** Create custom visualizations using R and Python.
- **Power Query:** Easily source and transform data.
- **Mobile App:** Access reports and dashboards on the go with the Power BI mobile app.
- **Integration with Microsoft Products:** Seamlessly integrate with other Microsoft products like Excel, SharePoint, and Azure.
- **Collaboration:** Share reports and collaborate with others in real time.
- **Security:** Robust security features to ensure data protection and compliance.

WHY POWER BI ?



Power BI

Organizations need a tool to handle large amounts of data and generate actionable insights and reports. Therefore, Microsoft introduced Power BI in for data analysis and visualization.

- **Efficiency:** Streamlines data analysis and reporting processes.
- **Scalability:** Suitable for businesses of all sizes, from small startups to large enterprises.
- **Integration with Microsoft Ecosystem:** Seamlessly works with other Microsoft tools like Excel, Azure, and SharePoint, enhancing overall productivity.