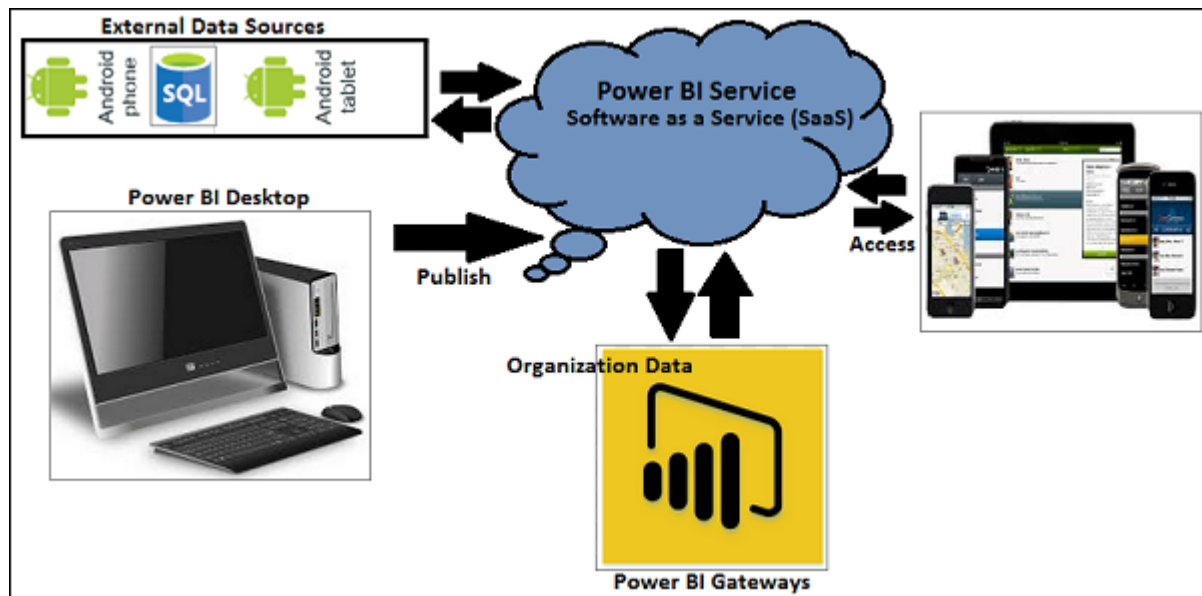# What is BI?

Business intelligence is a technology-driven method which helps you to analyze data and to provide actionable information which helps corporate executives, business managers, and other users to make informed business decisions.

Power BI

Power BI is a Data Visualization and Business Intelligence tool that converts data from different data sources to interactive dashboards and BI reports. Power BI suite provides multiple software, connector, and services - Power BI desktop, Power BI service based on Saas, and mobile Power BI apps available for different platforms. These set of services are used by business users to consume data and build BI reports.

Power BI includes the following components −

- Power BI Desktop − This is used to create reports and data visualizations on the dataset.
- Power BI Gateway − You can use Power BI on-premises gateway to keep your data fresh by connecting to your on-premises data sources without the need to move the data. It allows you to query large datasets and benefit from the existing investments.
- Power BI Mobile Apps − Using Power BI mobile apps, you can stay connected to their data from anywhere. Power BI apps are available for Windows, iOS, and Android platform.
- Power BI Service − This is a cloud service and is used to publish Power BI reports and data visualizations.

Power BI supports large range of data sources. You can click Get data and it shows you all the available data connections. It allows you to connect to different flat files, SQL database, and Azure cloud or even web platforms such as Facebook, Google Analytics, and Salesforce objects. It also includes ODBC connection to connect to other ODBC data sources, which are not listed.

Following are the available data sources in Power BI −

- Flat Files
- SQL Database
- OData Feed
- Blank Query
- Azure Cloud platform
- Online Services
- Blank Query
- Other data sources such as Hadoop, Exchange, or Active Directory

Case Study :-

Connect two table one is from sql and another is from flat file
After that apply full outer join with both tables.
And create a pie chart with different color format .

First table employee-- empid,name,age ,department,city,payrol type
Second table - empid ,basic salary ,departmentid ,gross salary

Pivot table?

A Pivot Table is **used to summarise, sort, reorganise, group, count, total or average data stored in a table**. It allows us to transform columns into rows and rows into columns. It allows grouping by any field (column), and using advanced calculations on them.