

# Power BI

Power BI is Microsoft's business intelligence and data visualization platform that enables users to transform raw data into interactive dashboards and meaningful insights. Designed for both analysts and business users, Power BI bridges the gap between data and decision-making by allowing users to create, publish, and share reports across the organization.

Power BI consists of three main components: Power BI Desktop (for report authoring), Power BI Service (for sharing and collaboration in the cloud), and Power BI Mobile (for access on smartphones and tablets). It supports connections to hundreds of data sources, including Excel, SQL Server, Salesforce, Google Analytics, Azure, and web APIs.

Data preparation is made easy with Power Query, which allows users to clean, shape, and combine data using a point-and-click interface. For modeling and calculations, Power BI uses DAX (Data Analysis Expressions), a formula language similar to Excel functions but designed for advanced analytical logic.

Reports and dashboards are highly interactive, supporting filters, drill-downs, and visuals like bar charts, maps, KPIs, and slicers. Users can schedule data refreshes and set up data alerts. With Power BI Pro or Premium, you can share reports within your organization or embed them into Teams, SharePoint, or custom apps.

AI capabilities are built-in, such as Q&A (natural language queries), anomaly detection, and integration with Azure Machine Learning. Power BI supports row-level security, auditing, and governance policies to meet enterprise standards. It's a core tool for data-driven culture and performance monitoring.