

What is PowerBI

Power BI is a business analytics tool developed by Microsoft that allows users to visualize data, share insights, and make data-driven decisions using interactive dashboards and reports.

Why Power BI

Most searched BI tool (beats Tableau)

1200+ functions, 250+ charts, rich features

Cheaper: 10 US dollars /user vs Tableau's \$70+

Connects to 100+ sources, real-time data support

What Can You Do With Power BI?

Connect to various data sources (Excel, SQL Server, Web, APIs, etc.)

Transform and clean data using Power Query.

Build interactive visualizations (charts, graphs, KPIs, maps).

Create calculated elds using DAX (Data Analysis Expressions).

Share dashboards with team members or stakeholders.

Set up data refresh schedules.

Power Query

Tool for data import & transformation (clean, filter, merge)

No-code editor using M language.

Used before loading data into Power BI.

Pivot

Summarizes data by rows and columns.

Can aggregate (SUM, COUNT, AVG).

Helps explore trends, e.g., sales by month.

View

Different ways to see data/model in Power BI Desktop:

Report View – Design dashboards.

Data View – See raw/cleaned data.

Model View – Define relationships between tables.

Power BI Service

Cloud platform to share reports and dashboards.

Enables collaboration, scheduled refresh, and real-time insights.

Supports workspaces, row-level security, and app publishing.

Important Features

Drag-and-drop interface

Real-time dashboard updates

Natural language queries (Ask a question in plain English)

AI-powered visuals and insights

Row-Level Security (RLS) for user-specific data access

Components of Power BI

Power BI Workflow

Connect – Import data from one or more sources.

Transform – Clean, filter, and model data.

Visualize – Use visuals to build reports and dashboards.

Publish – Share reports via Power BI Service.

Collaborate – Teams can comment, share, and co-edit dashboards.

Supported Data Sources

Excel, CSV, XML, JSON

SQL Server, Azure, MySQL, PostgreSQL

Web APIs, SharePoint, Google Analytics, Salesforce

Many more via connectors

Common Visuals in Power BI

Bar/Column Charts

Line and Area Charts

Pie and Donut Charts

Maps (Geographic visuals)

Tables and Matrices

Cards and KPIs

Slicers (Filters)

Who Uses Power BI?

Business Analysts

Data Analysts

Decision Makers

Financial Analysts

Project Managers

Marketing and Sales Teams

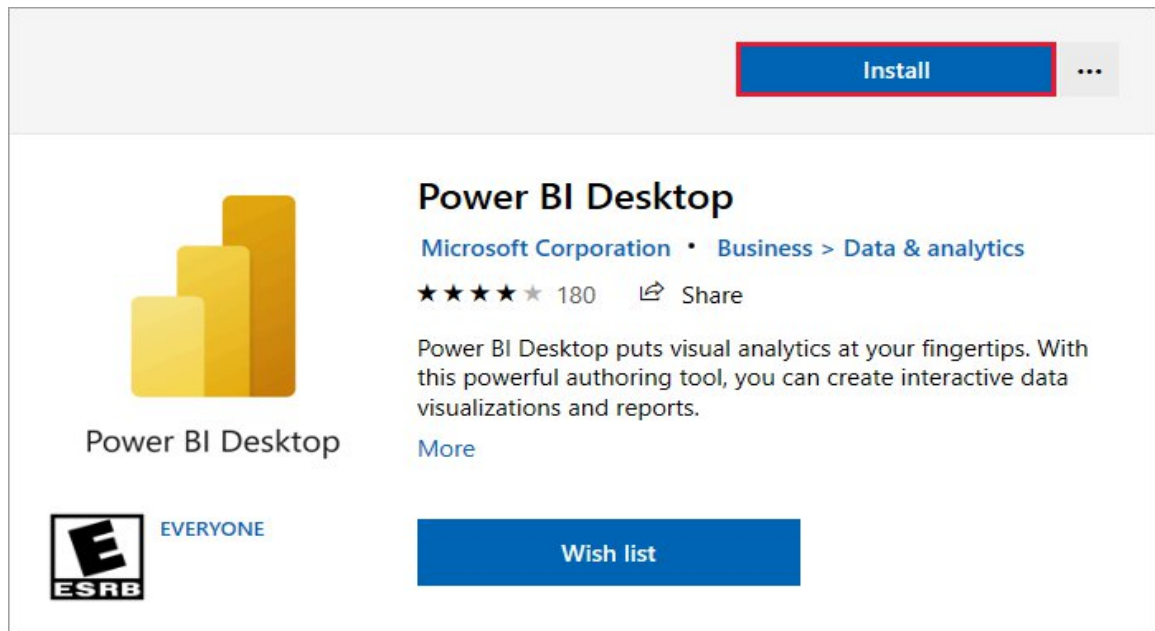
Power BI Desktop Installation & Setup

✓ Step 1: Download Power BI Desktop

Visit the official Power BI download page:

<https://powerbi.microsoft.com/desktop>

- Click on "Download free" to initiate the download.



✓ Step 2: Install Power BI Desktop Run the downloaded installer.

Follow the setup wizard: Click Next.

Accept the license agreement.

Choose the installation folder.

Click Install to begin the installation.

Once completed, click Finish.

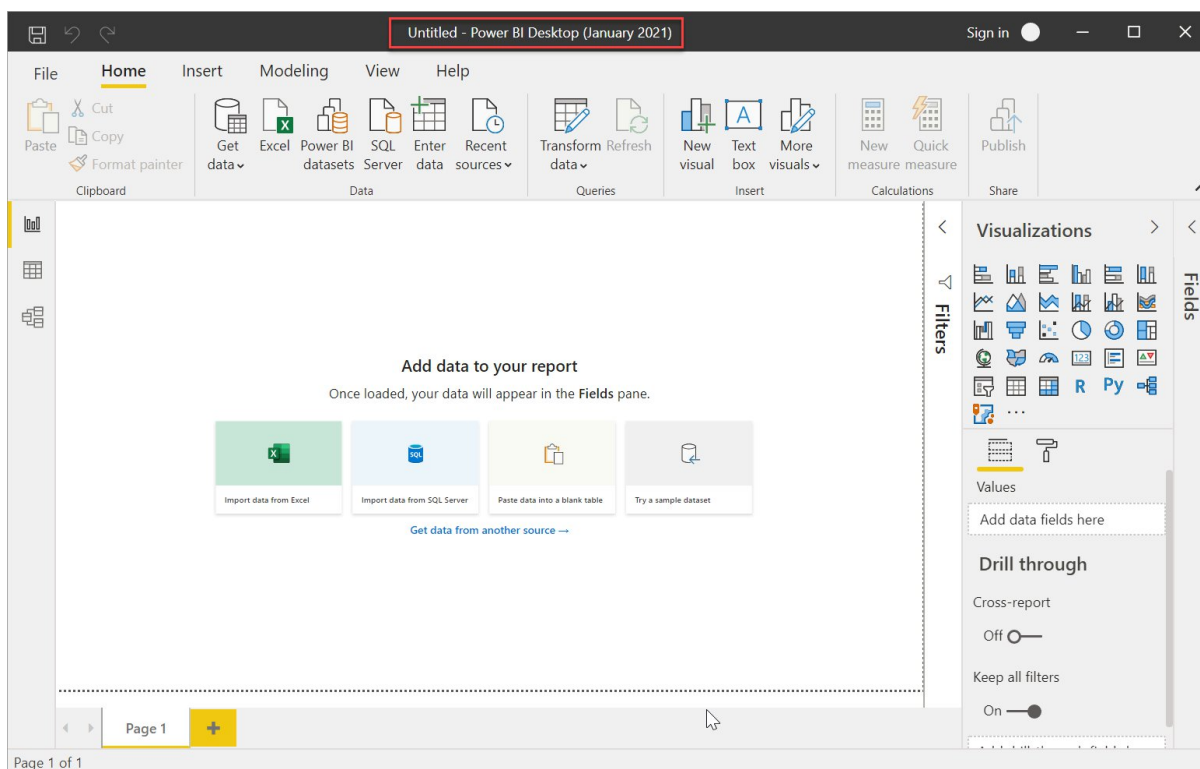


✓ Step 3: Launch Power BI Desktop

Open Power BI Desktop from the Start Menu or desktop shortcut.

Sign in with your Microsoft or organizational account (optional).

Explore the welcome screen to start creating reports.



✓ Step 4: Connect to Data Sources

Click on "Get Data" to connect to various data sources like Excel, SQL Server, Web, etc.

Use the Power Query Editor to transform and clean your data before loading it into the model.

