Power BI Direct Connectivity Asssignment
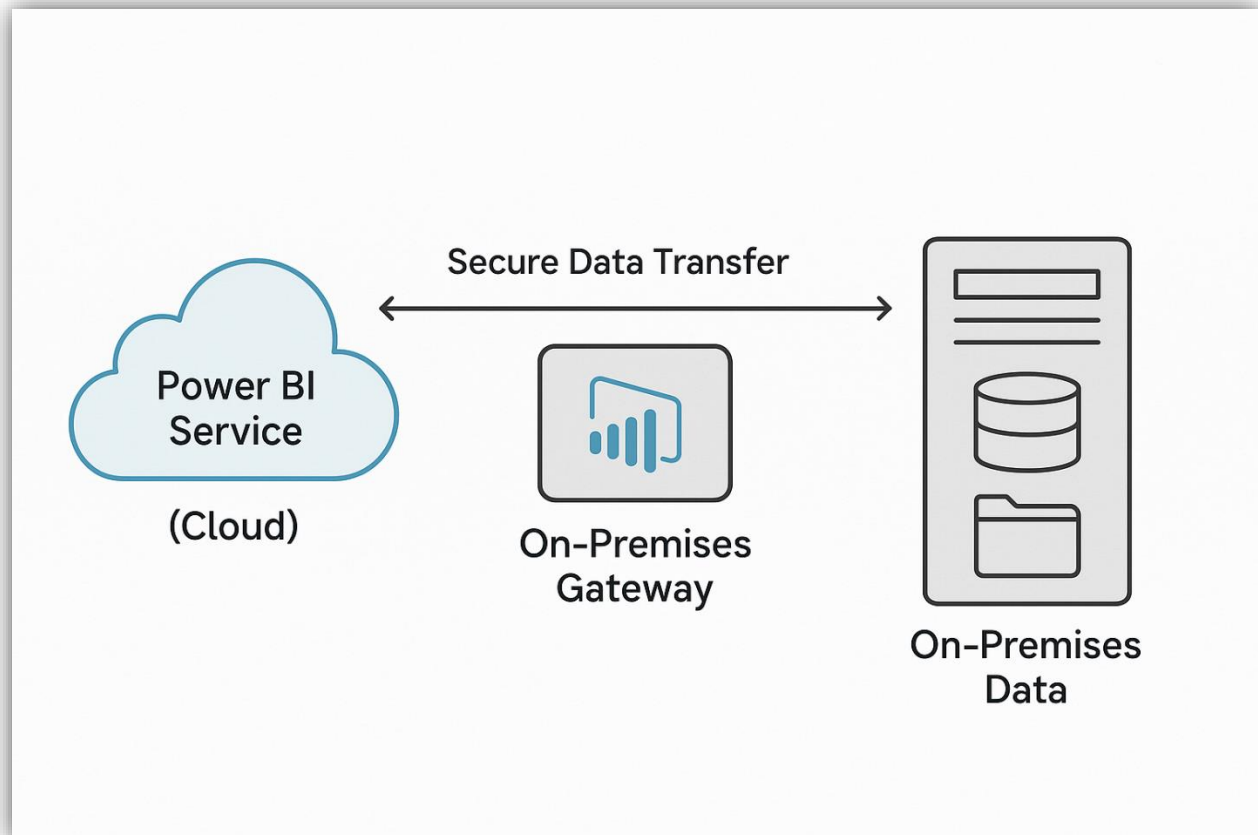
1. What are the 3 main connectivity modes in Power BI?

Mode	Description	Best For
Import Mode	Data is imported into Power BI. Most performant and commonly used.	Fast performance, offline data analysis
DirectQuery	Queries are run live against the data source. Data is not stored in Power BI.	Real-time dashboards, large datasets
Live Connection	Connects to an existing data model like SSAS or Power BI Dataset.	Enterprise-scale models, centralized BI

2. What are the two gateways in Power BI?

Gateway Type	Use Case
Personal Mode	For one user; used with Power BI Desktop only; no central management.
Standard/Enterprise Mode	Multi-user; used for shared datasets and central management. Recommended.

3. How gateway works ? Explain with diagram

4. What is the difference Cloud based data and On premises data?

Aspect	Cloud-Based Data	On-Premises Data
Storage Location	Stored on cloud platforms (e.g., Azure, Salesforce)	Stored within local servers or data centers
Access	Accessible via internet	Requires secure connection (e.g., Gateway)
Example Sources	Azure SQL, SharePoint Online, Web APIs	SQL Server, Oracle, SAP HANA, File System
Gateway Needed?	No	Yes

5. What are the step to use Gateway.

- **Download the Gateway:**

  - Go to Power BI Service → Settings → Manage Gateways → Download.

- **Install Gateway:**

  - Choose **Standard Mode** for enterprise use.
  - Install it on a machine that can access your on-premises data source.

- **Sign in and Register Gateway:**

  - Sign in with your Power BI account.
  - Register the gateway to your tenant.

- **Add Data Sources:**

  - Go to Power BI Service → Manage Gateways.
  - Add your on-premises data source (e.g., SQL Server, Oracle).
  - Enter credentials.

- **Use the Gateway in Power BI:**

  - In Power BI Desktop, use the same data source and name.
  - Publish the report.
  - In Power BI Service, go to **Dataset Settings → Gateway connection →** Select the configured gateway.

- **Schedule Refresh (Optional):**

  - Set up refresh frequency (daily/hourly).