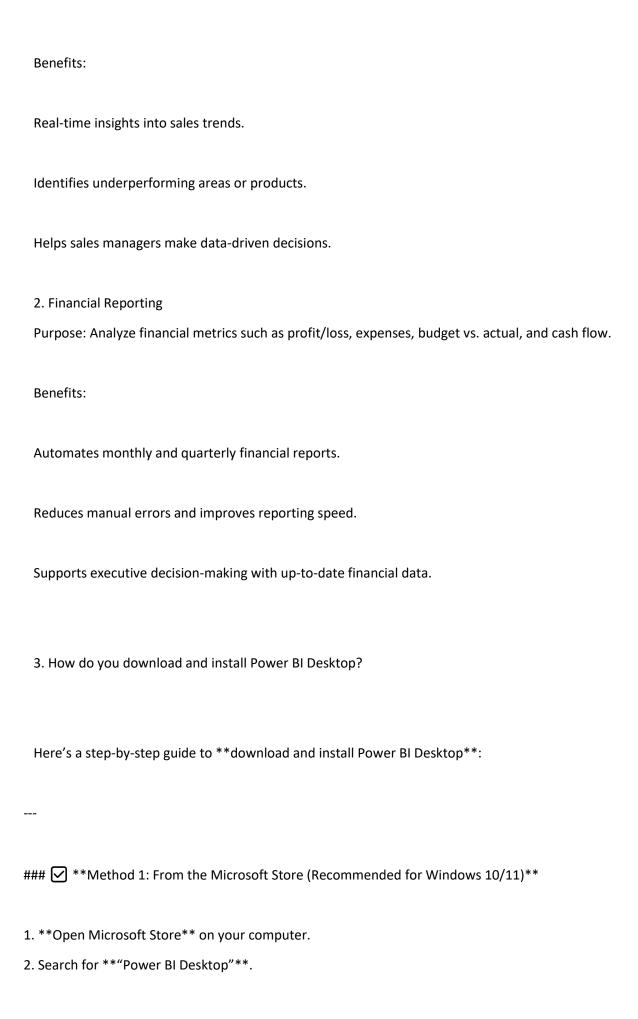
```
### / **Three Main Components of Power BI**
1. ### **Power BI Desktop**
 * A free Windows application used for:
  * Connecting to and transforming data.
  * Creating reports and data models.
  * Building visualizations.
 * It is primarily used by **data analysts and developers**.
2. ### **Power BI Service (Power BI Online)**
 * A **cloud-based platform** where users can:
  * Publish and share reports and dashboards.
  * Collaborate with others in real-time.
  * Set up data refresh schedules.
 * It is used for **sharing insights** with others in the organization.
3. ### **Power BI Mobile**
 * Mobile apps for **iOS, Android, and Windows** devices.
 * Allows users to **view and interact with dashboards and reports** on the go.
 * Supports alerts and notifications for real-time data changes.
2. Name two business use cases for Power BI dashboards.
 1. Sales Performance Monitoring
```

Purpose: Track sales metrics like revenue, targets, top-selling products, and regional performance.



| 4. Click **Get** or **Install**. |
|--|
| 5. Wait for the installation to complete, then launch Power BI Desktop from the Start menu. |
| |
| |
| |
| ### 🗹 **Method 2: From the Official Microsoft Website** |
| |
| 1. Go to the [official download page](https://powerbi.microsoft.com/desktop). |
| 2. Click **Download free** or **Advanced download options**. |
| 3. Choose the correct version (32-bit or 64-bit) based on your system. |
| 4. Download the `.msi` installer file. |
| 5. Double-click the downloaded file and follow the installation wizard: |
| |
| * Accept the license terms. |
| * Choose the install location (optional). |
| * Click **Install**, then **Finish**. |
| |
| |
| |
| ### ** **System Requirements** |
| |
| * Windows 10 or 11 (Power BI Desktop is not available for macOS natively). |
| * .NET Framework 4.7.2 or later. |
| |
| |
| 4. What is the difference between Power BI Desktop and Power BI Service? |
| |
| |
| The key difference between **Power BI Desktop** and **Power BI Service** lies in **where and how |
| you work with your data**. Here's a clear comparison: |
| |
| |

3. Click on the official app by **Microsoft Corporation**.

| Feature | **Power BI Desktop** | **Power BI Service** (Power BI Online) |
|--------------------------|--|---|
| | | |
| **Platform | n** Windows desktop application | n Web-based (cloud platform) |
| **Primary and dashboa | | g, and report creation Report sharing, collaboration, |
| **User Typ makers | pe** Data analysts, developers | Business users, managers, decision- |
| **Data Co datasets | nnections** Local files, databases, Al | Pls Cloud data sources or published |
| **Sharing others | Reports** Cannot share directly | Share dashboards and reports with |
| **Data Reautomatical | fresh** Manual refresh or schedule | ed via Service Supports **scheduled refresh** |
| • | Free to download and use ** for sharing | Requires **Power BI Pro** or |
| **Publishi reports | ing** Publish reports to Power BI S | Service Consume and interact with published |
| | | |
| | | |
| ### 🔍 In Si | ummary: | |
| * **Power B | BI Desktop** is for **building** reports | 5. |
| * **Power B | BI Service** is for **sharing** and **co | ollaborating** on those reports. |
| Let me know | w if you want a diagram or help underst | anding the Power BI Pro and Premium licenses. |
| 5. What fi | ile extension does a Power BI project us | se? |
| A **Powe | er BI project** created in **Power BI De | esktop** uses the file extension: |

```
### **`.pbix`**
### • Details:
* **`.pbix`** stands for **Power BI Interactive eXperience**.
* It contains:
 * Data models
 * Queries (Power Query steps)
 * Visualizations (reports and dashboards)
 * Relationships and measures (DAX formulas)
### • Other Power BI-related file types:
| Extension | Description
| `.pbix` | Main file for Power BI Desktop reports |
| `.pbit` | Power BI **template file** (no data) |
| `.pbiviz` | Custom visualization file
Let me know if you want to convert or export a `.pbix` file to other formats like Excel or PDF.
 6. Explain the role of Power Query in Power BI.
```

Power Query plays a crucial role in Power BI as the **data connectivity and data preparation** tool. It is primarily used to **import, clean, transform, and shape data** before loading it into the Power BI data model for analysis and visualization.

| ### Key Roles of Power Query in Power BI: |
|--|
| 1. **Data Importing**: |
| * Connects to a wide variety of data sources (e.g., Excel, SQL Server, web, APIs, CSV files). * Allows combining multiple data sources into a single model. |
| 2. **Data Transformation**: |
| * Performs transformations such as filtering rows, removing columns, changing data types, pivoting/unpivoting, splitting columns, and merging datasets. |
| * Provides a GUI for transformation steps, which are recorded as a series of steps in the query editor. |
| 3. **Data Cleaning**: |
| * Handles missing values, removes duplicates, replaces errors, and standardizes formats to ensure data quality. |
| 4. **Data Shaping**: |
| * Structures the data into the desired format for analysis (e.g., summarizing, aggregating, or restructuring data tables). |
| 5. **Query Folding**: |
| * Pushes transformation logic back to the source (when supported), optimizing performance by reducing data pulled into Power BI. |
| 6. **Automation of ETL (Extract, Transform, Load) Processes**: |
| * Once transformations are defined, Power Query can automatically refresh and apply them every time the data is updated. |
| 7. **M Language**: |

* Uses a functional programming language called **M** behind the scenes, allowing advanced users to customize and extend query functionality.

Summary:

Power Query is the **first step in the Power BI workflow**, ensuring that the data you analyze is well-prepared and reliable. It enables users—both technical and non-technical—to perform powerful data manipulations with minimal coding.

7. A business might prefer **Power BI over Excel** for reporting due to its **advanced data visualization, automation, scalability, and collaboration features**, which make it better suited for modern business intelligence needs. Here are key reasons:

1. **Interactive and Rich Visualizations**

- * **Power BI** offers a wide range of interactive dashboards, visual elements (maps, gauges, KPIs), and real-time data updates.
- * **Excel** charts are static and less dynamic in terms of user interaction.

🔁 2. **Automated Data Refresh and Scheduling**

- * Power BI can **automatically refresh** data from multiple sources on a schedule, keeping reports up to date.
- * In Excel, data refresh and updates often require manual steps or complex VBA.

@ 3. **Integration and Connectivity**

- * Power BI supports direct integration with a wide array of **cloud and on-premise data sources**, including SQL Server, SharePoint, Azure, Salesforce, etc.
- * Excel supports some data connectors, but not at the same depth or performance level.

1 4. **Data Modeling and DAX**

- * Power BI has a more robust **data model**, supporting large datasets and relationships between tables using DAX (Data Analysis Expressions).
- * Excel has limited modeling capabilities, mainly relying on PivotTables and basic formulas.

\$\frac{1}{2} 5. **Collaboration and Sharing**

- * Power BI allows easy **sharing and collaboration via Power BI Service**, with version control, access permissions, and centralized dashboards.
- * Excel files must be shared via email, OneDrive, or SharePoint, leading to version control and collaboration challenges.

7 6. **Performance and Scalability**

- * Power BI can handle **larger volumes of data** more efficiently than Excel, which can slow down or crash with large datasets.
- * Excel is better for small to medium-sized data but struggles with performance at scale.

i 7. **Security and Governance**

- * Power BI offers **row-level security, audit logs, and governance tools** for enterprise-level control.
- * Excel lacks advanced security features unless combined with enterprise tools.

Summary:

Conclusion:

Power BI is designed for **enterprise-grade business intelligence** and **data-driven decision-making** at scale, making it more suitable than Excel for modern reporting needs. Excel still plays an important role in ad hoc analysis and quick calculations, but Power BI is the go-to for robust, interactive, and shareable reporting solutions.

8 Describe one limitation of the free version of Power BI.

One key **limitation of the free version of Power BI** is that it **does not support sharing reports and dashboards with others** through the Power BI Service.

🔒 Limitation: No Report Sharing or Collaboration

- * In the **free version**, users can create and view reports **only for personal use** on the Power BI Desktop or their personal Power BI workspace.
- * To **share reports**, collaborate with others, or publish to apps and workspaces, you need a **Power BI Pro** license (or higher).

Why It Matters:

This limitation makes the free version unsuitable for **team-based or organizational reporting**, where dashboards need to be distributed or collaboratively maintained.

Summary:

- > **Free Power BI users can create and analyze reports, but cannot share or collaborate on them with others through the Power BI cloud service.**
- 9. A **"published report"** in **Power BI Service** refers to a **Power BI report that has been uploaded or published from Power BI Desktop to the Power BI cloud platform**. Once published, it becomes accessible online via the Power BI Service for viewing, sharing, and collaboration.

1. A user creates a report in **Power BI Desktop** using imported and transformed data. 2. They click **"Publish"**, which uploads the report to their **Power BI workspace** in the cloud. 3. The report is now considered a **published report** and can be: * Viewed in a web browser. * Shared with others (with appropriate licensing). * Embedded in dashboards. * Scheduled for data refresh. * Managed with access and security controls. ### * Components of a Published Report: * **Visuals and charts** created in Power BI Desktop. * The underlying **data model and queries**. * **Interactive features** like slicers and filters. * **Bookmarks**, drill-throughs, and custom visuals (if included). ### 🔁 Benefits of Publishing to Power BI Service: * **Cloud access** to reports from any device. * **Collaboration and sharing** within teams or the organization.

* **Data refresh automation**.

* **Row-level security** implementation.

* Integration with **dashboards and apps**.

| ### Example: |
|---|
| > After publishing a sales performance report from Power BI Desktop to the Power BI Service, a sales manager can access it via a browser, schedule daily data refreshes, and share it with regional sales teams. |
| |
| **In summary**: |
| A **published report** in Power BI Service is a cloud-hosted, interactive report that has been uploaded from Power BI Desktop, enabling sharing, collaboration, and online access. |
| 10. How does Power BI Mobile enhance accessibility? |
| **Power BI Mobile** enhances **accessibility** by allowing users to **view, interact with, and monitor reports and dashboards on mobile devices**, anytime and anywhere. This ensures that decision-makers and teams stay connected to their data even when they are away from their desks. |
| |
| ### 🚀 Key Ways Power BI Mobile Enhances Accessibility: |
| #### 1. **Anywhere, Anytime Access** |
| * View dashboards and reports from **smartphones and tablets** (iOS, Android, Windows). * Enables on-the-go data monitoring and decision-making. |
| #### 2. **Optimized Mobile Layouts** |
| * Reports can be customized with **mobile-friendly layouts** in Power BI Desktop. * Ensures visuals fit smaller screens and remain easy to navigate and understand. |
| #### 3. **Touch-Enabled Interactivity** |

| * Users can **tap, swipe, zoom, and drill through** data interactively, just like on the desktop version. |
|--|
| * Touch gestures make it intuitive for mobile users to explore data. |
| #### 4. **Real-Time Alerts and Notifications** |
| * Set up **data-driven alerts** for KPIs. |
| * Receive push **notifications when thresholds are exceeded**, ensuring immediate awareness. |
| #### 5. **Offline Access** |
| * Cached data allows access to previously viewed reports even **without internet connectivity**. |
| #### 6. **Secure Access** |
| * Integrated with **Azure Active Directory** for secure sign-in and access control. |
| * Supports **biometric authentication** (e.g., Face ID, fingerprint) for secure access on mobile devices. |
| #### 7. **QR Code Scanning** |
| * Scan a QR code from a printed dashboard or asset to quickly open the related report in the app. |
| |
| ### Summary: |
| > **Power BI Mobile enhances accessibility by making business data available, secure, and interactive on mobile devices, empowering users to stay informed and make decisions from anywhere.** |
| 11. Here's a **comparison of Power BI and Tableau**, two of the most popular business intelligence (BI) tools, focusing on their **pros and cons** across key categories: |

| Feature/Aspect | | **Tableau | |
|---|--|--------------------------------------|----------------------|
| | | | |
| **Cost** I Tableau Creator starts a | | available; Pro starts at \~\\$10/m | o Higher pricing; |
| **Ease of Use** curve; more technical UI | • | l-like); easier for beginners | Steeper learning |
| **Data Visualization** visualizations and custor | Good, but less flexible | e than Tableau | Industry-leading |
| **Performance** large data sets very effic | | stack; good with medium-large | data Handles |
| **Data Handling** complex, large, and varie | | d data (Excel, SQL, etc.) | Excellent with |
| | Deep integration with Manage of databases & cloud | icrosoft tools (Excel, Azure, Tea | ms) Strong |
| | Cloud-first; desktop, m hybrid via Tableau Server | nobile, and on-prem (Power BI R) | eport Server) More |
| **Sharing & Collaborate Tableau Server or Tablea | tion** Seamless via Powe au Online for sharing | er BI Service (Office 365) | Requires |
| **AI & ML Features** Discovery (via Salesforce | | ick insights, Copilot AI) | Offers Einstein |
| **Community & Suppo active community; excel | | r; rich documentation; Microsoft | support Very |
| | | | |
| ## 🗸 **Power BI – Pro | S** | | |
| * **Affordable** for ind | lividuals and small business | ses. | |
| * **User-friendly** for I | Excel users. | | |
| * Seamless **integration | n with Microsoft 365 and A | vzure**. | |
| * Good **Al-powered in | sights and natural languag | e Q\&A**. | |

```
## X **Power BI – Cons**
* Limited flexibility in **advanced custom visualizations**.
* **Performance may lag** with extremely large datasets.
* Best suited for users already in the **Microsoft ecosystem**.
## 🗹 **Tableau – Pros**
* **Best-in-class data visualization** and dashboard flexibility.
* Superior handling of **large and complex datasets**.
* Highly customizable and powerful for **data analysts and scientists**.
* **Robust integration** with diverse data sources and cloud platforms.
## X **Tableau - Cons**
* **More expensive**, especially for teams or organizations.
* **Steeper learning curve** for beginners.
* Requires **Tableau Server or Online** for collaborative sharing.
## ** **Summary Recommendation:**
* **Choose Power BI if**:
 * You use Microsoft products (Excel, Azure, Teams).
 * You need an affordable, easy-to-use BI tool.
```

* You want built-in AI insights and collaboration through Microsoft 365.

* Fast learning curve for basic reporting.

* **Choose Tableau if**: * You need **advanced, flexible data visualization**. * You work with **large and complex datasets**. * You want **platform-agnostic deployment** and broader data source support. Both are excellent tools—your choice depends on **your team's technical skill, data complexity, and budget**. 12. Explain how Power BI integrates with Azure services. Power BI integrates deeply with **Azure services**, creating a powerful ecosystem for data analytics, business intelligence, and scalable cloud-based solutions. This integration enables organizations to connect, process, analyze, and visualize large volumes of data efficiently and securely. ### S Key Azure Services Power BI Integrates With: #### 1. **Azure SQL Database / Azure Synapse Analytics** * **Direct data connection** for real-time dashboards and reports. * Use **DirectQuery** to access up-to-date data without importing. * Leverage **Synapse** for big data analytics and combine it with Power BI for visualization. #### 2. **Azure Data Lake Storage (ADLS)** * Store and manage large data sets in the lake. * Power BI can connect directly to **Parquet, CSV, or JSON files** in ADLS for scalable data ingestion and analysis.

3. **Azure Data Factory**

```
* Orchestrate complex **ETL (Extract, Transform, Load)** pipelines.
* Prepare and move data to Power BI-friendly sources (e.g., SQL DB, ADLS).
* Use **Dataflows** in Power BI, which are powered by **Azure Data Lake Gen2** behind the scenes.
#### 4. **Azure Analysis Services**
* Host **tabular data models** in Azure.
* Power BI can connect to these models for advanced data modeling and real-time analytics.
* Power BI Premium now supports **Azure Analysis Services-equivalent** models natively.
#### 5. **Azure Machine Learning**
* Integrate **machine learning models** into Power BI reports for predictive analytics.
* Use trained models in Azure ML directly in Power BI through **Azure ML integration in Power
Query**.
#### 6. **Azure Active Directory (Azure AD)**
* Power BI uses Azure AD for **user authentication, access control, and Single Sign-On (SSO)**.
* Enables **row-level security** and secure collaboration.
#### 7. **Azure Log Analytics & Azure Monitor**
* Monitor and analyze **Power BI usage, performance, and audit logs**.
* Use **Log Analytics queries** to gain insights into usage trends or troubleshoot issues.
### S Workflow Example:
1. Data is stored in **Azure SQL Database**.
2. **Azure Data Factory** transforms and loads it to **Azure Data Lake**.
```

| 3. A **Power BI dataset** connects to this data. |
|--|
| 4. **Azure ML models** are applied for predictions. |
| 5. Power BI visualizes results in a dashboard. |
| 6. **Azure AD** secures access based on user roles. |
| |
| |
| |
| ### 🚀 Benefits of Power BI + Azure Integration: |
| |
| * **Scalability**: Handle large volumes of structured and unstructured data. |
| * **Security**: Enterprise-grade protection with Azure AD and role-based access. |
| * **Real-time Analytics**: With streaming data from Azure Event Hubs or Stream Analytics. |
| * **Al and ML Integration**: Use Azure ML for intelligent insights. |
| * **Unified Ecosystem**: Seamless experience within the Microsoft cloud stack. |
| |
| |
| |
| ### Summary: |
| |
| > **Power BI integrates with Azure to unlock end-to-end data analytics—connecting data storage, transformation, modeling, machine learning, and secure reporting—on a scalable, cloud-native |
| platform.** |
| |
| |
| 13. What are "gateways" in Power BI, and when are they needed? |
| |
| In **Power BI**, a **gateway** is a **bridge between on-premises data sources and the Power BI Service** in the cloud. It allows secure data transfer so that reports and dashboards in the Power BI |
| Service can access data stored **on-premises** (inside your organization's network). |
| |
| |
| |
| ### / What Is a Power BI Gateway? |

A **gateway** enables Power BI to: * **Refresh data** from on-premises sources (like SQL Server, Excel, Oracle, etc.). * **Query live data** in real time (if using DirectQuery or live connection). * **Maintain security** and compliance by not moving data to the cloud unnecessarily. ### * Types of Power BI Gateways: | Gateway Type | Description |------| -----| **Personal Mode** | For individual users; supports **scheduled refresh only**; not for shared | **Standard (Enterprise) Mode** | Supports **multiple users**, **DirectQuery**, **live connections**, and **scheduled refreshes**. Used in production environments. ### * When Are Gateways Needed? You need a gateway when: 1. **Your data source is on-premises** (inside a local network or firewall). 2. You want to **refresh a dataset** in Power BI Service from an on-premises source. 3. You use **DirectQuery or live connections** to on-premises databases. 4. You want to **automate data refresh** on reports hosted in the Power BI cloud. 5. You're working with **other Microsoft services** like Power Automate or Azure Logic Apps that require on-prem access.

| ### • Security Features: |
|--|
| * Uses **Azure Service Bus** to establish a secure connection. |
| * Data is **encrypted** in transit. |
| * You can **control user access** and manage gateway clusters for redundancy. |
| |
| |
| |
| ### Sexample: |
| |
| > If your finance team stores data in an on-premises SQL Server, and you want to view real-time dashboards in Power BI Service, you would install a **Power BI gateway** on a secure server to connect |
| the SQL database to Power BI in the cloud. |
| |
| |
| |
| ### Summary: |
| |
| > A **Power BI gateway** is essential for securely connecting Power BI Service to on-premises data sources, enabling data refreshes, live queries, and hybrid data solutions. |
| |
| |
| 14. How would you convince a company to adopt Power BI? (ROI argument) |
| |
| To convince a company to adopt **Power BI**, you should present a strong **ROI (Return on Investment)** argument that demonstrates how Power BI delivers **cost savings, productivity gains, |
| better decision-making, and competitive advantages**. |
| |
| |
| |
| ### ROI Argument for Adopting Power BI: |
| |
| |

| ## 1. **Lower Total Cost of Ownership (TCO)** |
|--|
| * **Affordable Licensing**: Power BI Pro starts at **\\$10/user/month**, with a **free desktop version** for report creation. |
| * **No expensive infrastructure** required—Power BI is **cloud-based**, reducing hardware and IT costs. |
| * **Included with Microsoft 365 E5 plans**, reducing software redundancy. |
| **ROI Impact**: Lower upfront and ongoing costs compared to traditional BI platforms like Tableau or legacy systems. |
| |
| ## 2. **Faster, Data-Driven Decisions** |
| * **Real-time dashboards** and alerts help decision-makers respond to issues or opportunities immediately. |
| * **Self-service analytics** reduces reliance on IT and speeds up insight generation. |
| **ROI Impact**: Saves time on report generation and boosts agility—turns data into actionable insights faster. |
| |
| ## 3. **Increased Productivity and Efficiency** |
| * Automates **data refresh, transformation, and report distribution**. |
| * Empowers employees across departments (finance, sales, HR) to create their own reports with minimal training. |
| **ROI Impact**: Reduces manual effort, saves analyst hours, and improves overall operational efficiency. |

| ## 4. **Better Data Visibility and Accuracy** |
|---|
| * Centralizes and standardizes data from multiple sources. |
| * Reduces **spreadsheet errors** and inconsistencies. |
| **ROI Impact**: Improves reporting accuracy, minimizes costly mistakes, and supports compliance. |
| |
| ## 5. **Improved Collaboration and Accessibility** |
| * Securely share reports across teams and departments through the Power BI Service. |
| * Access insights from **anywhere on any device**, including mobile. |
| **ROI Impact**: Facilitates alignment and faster communication across teams. |
| |
| ## 6. **Scalable and Future-Proof** |
| * Seamless integration with **Azure**, **Excel**, **Microsoft 365**, and hundreds of other data sources. |
| * Scales with your organization as data grows. |
| **ROI Impact**: Protects your investment and adapts to evolving business needs without replatforming. |
| |
| ### 🚼 ROI Summary: |
| Benefit ROI Impact |

| Lower licensing and IT costs \downarrow OPEX |
|---|
| Self-service reporting ↑ Efficiency |
| Faster insights ↑ Speed & agility |
| Reduced manual work |
| Accurate and timely data \downarrow Risk, \uparrow Trust |
| Collaboration and access 个 Team productivity |
| |
| ### 🎯 Final Pitch: |
| > **Power BI delivers enterprise-level analytics at a fraction of the cost**, empowering your teams with real-time insights and automation that drive smarter decisions and higher productivity. The investment in Power BI pays for itself quickly through reduced reporting costs, faster decision-making, and improved business performance. |
| Would you like a tailored cost-benefit analysis for your specific organization? |
| 15. What security features does Power BI offer for sensitive data? |
| Power BI offers a range of **enterprise-grade security features** to protect sensitive data across its ecosystem—from **data ingestion and storage to sharing and access control**. These features ensure compliance, privacy, and protection of business-critical information. |
| |
| ### 🔐 Key Security Features in Power BI: |
| |
| ## 1. **Azure Active Directory (Azure AD) Integration** |

```
* Provides **Single Sign-On (SSO)** and **multi-factor authentication (MFA)**.
* Centralized **user identity management and access control**.
* Enables **conditional access policies** for added protection.
## 2. **Row-Level Security (RLS)**
* Restricts **data visibility at the row level** based on user roles.
* Users only see data they are authorized to view (e.g., sales reps see only their region).
## 3. **Data Encryption**
* **In-transit**: All data is encrypted using **HTTPS/TLS** when moving between Power BI and data
sources.
* **At rest**: Data stored in the Power BI service is **encrypted using Microsoft-managed keys (AES-
256)**.
## 4. **Microsoft Purview Sensitivity Labels**
* Apply **data classification labels** (e.g., Confidential, Public) to Power BI reports, datasets, and
dashboards.
* Enforces protection policies, even when data is exported to Excel or PDF.
## 5. **Export and Sharing Controls**
* Admins can **restrict export of data** to Excel, CSV, or other formats.
```

| * Control **who can share, publish, or embed** reports outside the organization. |
|--|
| |
| ## 6. **Auditing and Activity Monitoring** |
| * Track user activity, data access, and report usage via: |
| * **Power BI Audit Logs** (available in Microsoft 365 Compliance Center). |
| * **Microsoft Defender for Cloud Apps** for threat detection. |
| |
| ## 7. **Data Loss Prevention (DLP)** |
| * Apply DLP policies to prevent unauthorized sharing of sensitive data. |
| * Detect and block risky behaviors in report creation or sharing. |
| |
| ## 8. **Service Principals and API Security** |
| * Use **service principals** to manage automated or programmatic access securely. |
| * Apply **OAuth2** and **token-based access controls** for third-party integrations. |
| |
| ## 9. **Power BI Tenant Settings** |
| * Admins can enforce policies like: |
| * Disabling external sharing. |

| * Limiting publish-to-we | eb. |
|----------------------------|--|
| * Managing certified da | tasets and report usage. |
| | |
| | |
| | |
| ## 10. **Bring Your Own | Key (BYOK)** |
| | |
| | their own **encryption keys** (in Azure Key Vault) for added control over data |
| encryption at rest (availa | ble with Power BI Premium). |
| | |
| | |
| ### ✓ Summary: | |
| Julian G. Summary. | |
| Security Feature | Purpose |
| | |
| Azure AD + MFA | Secure authentication and identity control |
| Row-Level Security (RLS | S) Fine-grained data access |
| Encryption (in-transit & | at rest) Protects data during transfer and storage |
| Sensitivity Labels | Data classification and compliance |
| Export/Sharing Restrict | ions Prevents data leaks |
| Auditing & Logs | Tracks access and behavior |
| DLP Policies | Protects against data loss |
| BYOK | Full control over encryption keys |
| | |
| | |
| | |
| ### Conclusion: | |

> **Power BI offers a comprehensive security framework** designed to protect sensitive data while supporting collaboration and compliance. From identity management and access controls to encryption and data governance, Power BI helps organizations confidently manage data in a secure analytics environment.