

## 1. How does Power BI handle large datasets in the Online Service, and what is the role of Premium Capacity?

- In the Service, **Import mode datasets** are stored in-memory (compressed). Pro workspaces have size limits (1 GB per dataset).
  - **Premium Capacity** provides larger storage (up to 400 GB per dataset), faster performance, and dedicated resources.
  - Premium also unlocks features like **incremental refresh**, **XMLA endpoint**, and **higher refresh frequency**.
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## 2. Differences between Import mode, DirectQuery, and Live Connection in Power BI Service

- **Import:** Data is copied into Power BI's in-memory model. Fast, but needs refresh to stay current.
  - **DirectQuery:** No data storage in Power BI. Queries go live to the source. Useful for large or near real-time data, but slower and limited in transformations.
  - **Live Connection:** Connects to an external Analysis Services model or Power BI dataset. All data and calculations stay in the source; Power BI is just a visualization layer.
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## 3. Deployment pipelines in Power BI Online – stages included

- Deployment pipelines help move content safely from **Development** → **Test** → **Production**.
  - Each stage is a workspace. You can compare, promote, and deploy reports, dashboards, and datasets across these stages with version control.
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## 4. How can Power BI Service integrate with Microsoft Teams or SharePoint for collaboration?

- **Teams:** Embed reports in Teams channels or chats using the Power BI app. Users see reports directly within Teams.

- **SharePoint:** Embed reports in SharePoint Online pages using the Power BI web part. Good for intranet dashboards.
  - Both require users to have proper Power BI permissions.
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## 5. What is the XMLA endpoint in Premium and how does it benefit developers or enterprise BI teams?

- XMLA endpoint allows **read/write access to datasets** using tools like SSMS, Tabular Editor, and scripting.
  - It's available in Premium or Premium Per User workspaces.
  - Benefits: advanced modeling, automation, deployment, and integration with enterprise BI processes.
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## 6. Describe how usage metrics and audit logs work in Power BI Service

- **Usage metrics:** Each report/dataset has built-in usage reports showing views, unique users, and frequency.
  - **Audit logs:** In Microsoft 365 admin, you can track user actions (viewed, shared, exported). Good for compliance and governance.
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## 7. How do you manage workspace access and permissions for different users?

- Go to the workspace → **Access**. Roles include:
    - **Admin:** Full control.
    - **Member:** Can edit and publish.
    - **Contributor:** Can edit but not manage.
    - **Viewer:** Read-only.
  - Always use **security groups** for easier management.
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## 8. How can data governance be enforced in Power BI Service?

- Use **sensitivity labels** and **data classification**.
- Apply **RLS (Row-Level Security)** to restrict data.

- Control **sharing and export settings** at the tenant level.
  - Monitor activity with **audit logs** and **usage metrics**.
  - Centralize datasets to avoid silos and duplication.
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## 9. What are the limitations of Row-Level Security with DirectQuery or Live Connection?

- RLS works, but performance can be slower because filtering happens at query time.
  - For Live Connection to external Analysis Services, RLS must be defined in the source, not in Power BI.
  - Some sources may not support complex RLS rules.
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## 10. How can you refresh a dataset via Power Automate or REST API?

- **Power Automate:** Use the Power BI connector's **Refresh a dataset** action; schedule or trigger refresh based on events.
- **REST API:** Send a POST request to the Power BI REST endpoint (<https://api.powerbi.com/v1.0/myorg/groups/{workspaceId}/datasets/{datasetId}/refreshes>) using a service principal or account with permissions. Good for automated pipelines.