

Lesson 20

Topic: Publishing and Sharing in Power BI

Prerequisite: Written brief explanation for each question.

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

Power BI handles large datasets through compression and in-memory storage (VertiPaq engine). However, standard (Pro) capacity has a 1 GB dataset size limit. Premium Capacity significantly increases this limit (up to 400 GB per dataset), provides better performance, and allows for features like incremental refresh and large model support.

2. What are the differences between Import mode, DirectQuery, and Live Connection in Power BI Service?

- Import mode: Data is stored in Power BI's memory. It's fast and supports all features but requires scheduled refreshes.
 - DirectQuery: Data stays in the source; queries run live on every interaction. It's useful for real-time data but can be slower and has limitations on DAX functions.
 - Live Connection: Used for Analysis Services models or semantic models in Power BI. The report connects directly without importing or querying individual tables.
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3. Explain deployment pipelines in Power BI Online. What stages do they include?

Deployment pipelines help manage content lifecycle (Dev → Test → Production). They include three stages:

- Development: Build and test your reports.
 - Test: Validate visuals and performance with business users.
 - Production: Final stage for report consumption. Each stage can have different datasets, connections, and permissions.
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4. How can Power BI Service integrate with Microsoft Teams or SharePoint for collaboration?

Power BI integrates with Teams through tabs and chat sharing, allowing users to access reports within team channels. With SharePoint, reports can be embedded in modern pages using the Power BI web part, allowing viewers to interact with visuals directly in the portal.

5. What is the XMLA endpoint in Premium and how does it benefit developers or enterprise BI teams?

The XMLA endpoint allows advanced connectivity to Power BI semantic models using tools like SSMS, ALM Toolkit, or Visual Studio. It benefits developers by enabling advanced modeling, version control, automation, and integration with enterprise-level BI solutions.

6. Describe how usage metrics and audit logs work in Power BI Service.

- Usage metrics: Provide insights into how often a report or dashboard is viewed, by whom, and when.
 - Audit logs (available via Microsoft 365): Track user activity across the platform (e.g., sharing, publishing, deleting) for security and compliance.
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7. How do you manage workspace access and permissions for different users?

Workspace roles include Admin, Member, Contributor, and Viewer. Admins control access and settings; members can edit content; contributors can create and publish; viewers can only read reports. Role-based access ensures data governance and controlled collaboration.

8. How can data governance be enforced in Power BI Service?

Organizations can enforce governance via:

- Role-based access controls

- Data classification and sensitivity labels
 - Audit logs and usage monitoring
 - Certified datasets and approved workspaces
 - Integration with Microsoft Purview for lineage and cataloging
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9. What are the limitations of Row-Level Security when using DirectQuery or Live Connection?

RLS works with both modes but may introduce performance overhead in DirectQuery due to row filters being pushed to the source. In Live Connection, RLS must be configured in the source model (e.g., SSAS) and cannot be edited in Power BI Service directly.

10. Explain how you can refresh a dataset via Power Automate or REST API.

- With Power Automate, you can trigger dataset refreshes on events (like file uploads or email receipt).
- Using the Power BI REST API, developers can programmatically initiate refreshes, check status, or integrate refresh logic into external applications.