Publishing and Sharing in Power BI - Advanced Topics

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

Power BI Online Service handles large datasets by leveraging import mode with compression, aggregations, and incremental refresh. Premium Capacity provides dedicated resources (memory, CPU) that allow larger dataset size limits (up to 400 GB per dataset with Premium) and faster refresh times. Without Premium, dataset size is limited (1 GB per dataset with Pro). Premium also supports advanced features like XMLA endpoints and paginated reports.

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

Import Mode: Data is copied into the Power BI dataset, providing fast query performance but requiring refresh. DirectQuery: Queries are sent live to the source, enabling real-time access but with performance limitations and dependency on source availability. Live Connection: No data is stored in Power BI; instead, it directly connects to existing Analysis Services or Power BI datasets, ensuring a single source of truth.

Explain deployment pipelines in Power BI Online. What stages do they include?

Deployment pipelines allow lifecycle management of reports, datasets, and dashboards across environments. They include three main stages: Development (build and test), Test (validation by business users or QA), and Production (final version for end-users). Pipelines support promotion of content between stages with version control.

How can Power BI Service integrate with Microsoft Teams or SharePoint for collaboration?

Power BI reports and dashboards can be embedded in Microsoft Teams tabs or shared in channels, enabling collaboration within Teams. SharePoint Online supports embedding Power BI reports using the Power BI web part. This integration provides real-time insights within collaboration platforms.

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

XMLA endpoint allows developers and BI teams to connect external tools (like SSMS, Excel, Visual Studio) to Power BI datasets hosted in Premium capacity. It provides programmatic access for advanced modeling, automation, governance, and integration with enterprise BI workflows.

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

Usage metrics provide insights into how reports and dashboards are being accessed, including views, users, and frequency. Audit logs (available in Microsoft 365 Compliance Center) provide detailed tracking of user activities such as viewing, sharing, or modifying content. These tools support monitoring adoption and ensuring compliance.

How do you manage workspace access and permissions for different users?

Workspaces support role-based access control. Roles include Admin, Member, Contributor, and Viewer. Permissions can be managed at the workspace level to control who can edit, share, or only

view reports and datasets.

How can data governance be enforced in Power BI Service?

Data governance can be enforced by controlling dataset certifications, applying sensitivity labels, using data loss prevention (DLP) policies, and restricting export/sharing options. Admins can also enforce tenant settings, monitor usage, and manage capacity assignments.

What are the limitations of Row-Level Security when using DirectQuery or Live Connection?

With DirectQuery or Live Connection, RLS rules are applied at query time, which may impact performance. Additionally, when connecting to external Analysis Services models, RLS must be defined in the source model and not in Power BI. Some data sources may also not fully support dynamic RLS filtering.

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

Power Automate allows triggering dataset refreshes based on events or schedules. The Power BI REST API provides endpoints to trigger refreshes programmatically, check refresh history, and manage refresh operations. This enables automation and integration into enterprise workflows.