1. Handling large datasets & Premium Capacity

- **Large Datasets**: In Pro, dataset size is limited (1 GB per dataset, 10 GB total storage). Power BI compresses data using VertiPaq to fit more into memory.
- **Premium Capacity**: Provides dedicated cloud resources with higher limits (up to 400 GB per dataset, depending on SKU). It enables larger models, more refreshes (48/day), and faster performance.

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2. Import mode vs. DirectQuery vs. Live Connection

- **Import Mode**: Data is copied into Power BI Service, compressed, and refreshed periodically. Fastest performance but requires refresh schedules.
- **DirectQuery**: No data stored in Power BI; queries are sent to source in real-time. Lower performance, but always up-to-date.
- **Live Connection**: Similar to DirectQuery, but connects only to semantic models (e.g., Analysis Services, shared datasets). No data modeling inside report; only visualization.

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3. Deployment pipelines in Power BI Online

- Used to promote content through **stages**:
    1. **Development** – initial build and testing.
    2. **Test** – user acceptance testing, validation with test users.
    3. **Production** – final published version for end-users.
- Ensures controlled rollout and version management.

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4. Integration with Microsoft Teams / SharePoint

- **Teams**: Reports or dashboards can be embedded directly into Teams channels or chats. Users collaborate in context without leaving Teams.
- **SharePoint**: Using the Power BI web part, reports can be embedded into modern SharePoint pages for organization-wide access.

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5. XMLA endpoint in Premium

- XMLA (XML for Analysis) endpoint allows **programmatic access** to semantic models in Premium.
- Benefits:
    - Connect external tools like Excel, SSMS, or Tabular Editor.
    - Automate deployments, refreshes, and governance.
    - Enterprise BI teams can manage models as if they were Analysis Services.

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6. Usage metrics & audit logs

- **Usage Metrics**: Built-in dashboards in Power BI Service showing views, unique viewers, and report performance.
- **Audit Logs**: Available via Microsoft 365 compliance center. Track activities like who accessed, shared, or modified reports/datasets. Useful for governance and security.

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7. Managing workspace access & permissions

- Each workspace has roles:
  - **Viewer** → read-only.
  - **Contributor** → can edit content but not publish apps.
  - **Member** → full editing + publish apps.
  - **Admin** → full control, including access management.
- Permissions are managed under **Workspace settings → Access**.

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8. Data governance in Power BI Service

- Enforced via:
  - **RLS (Row-Level Security)**.
  - **Sensitivity labels** (integration with Microsoft Purview).
  - **Dataflows** for standardized transformations.
  - **Audit logs** for monitoring compliance.
  - **Tenant settings** (e.g., restricting export, sharing, or external users).

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9. Limitations of RLS with DirectQuery or Live Connection

- Performance: Every filter query is pushed to the source system, slowing down large queries.
- Complexity: RLS must exist in both Power BI and source system for Live Connection (e.g., Analysis Services).
- Cached results are limited; real-time enforcement increases query load.

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10. Refreshing datasets via Power Automate or REST API

- **Power Automate**: Use the Power BI connector → "Refresh a dataset" action → can be triggered on a schedule or event.
- **REST API**: Developers can call `POST https://api.powerbi.com/v1.0/myorg/datasets/{datasetId}/refreshes` to trigger refresh programmatically. Useful for CI/CD pipelines and automation.