



TAN DUC INFORMATION TECHNOLOGY SCHOOL JSC

Address: 103 Pasteur, Dist.1, HCMC

Tel: 028 38245819; 38239761

Email: traincert@tdt-tanduc.com

Website: www.tdt-tanduc.com; www.tanducits.com

Let's Reach For Excellence!

Mastering Microsoft Power BI

Duration: 05 days

AUDIENCE & PREREQUISITES

This course is intended for business intelligence professionals responsible for the design and development of Power BI content as well as managers, architects and administrators who oversee Power BI projects and deployments. The chapters flow from the planning of a Power BI project through the development and distribution of content to the administration of Power BI for an organization.

BI developers will learn how to create sustainable and impactful Power BI datasets, reports, and dashboards. This includes connecting to data sources, shaping and enhancing source data, and developing an analytical data model. Additionally, top report and dashboard design practices are described using features such as Bookmarks and the Power KPI visual.

BI managers will learn how Power BI's tools work together such as with the On-premises data gateway and how content can be staged and securely distributed via Apps. Additionally, both the Power BI Report Server and Power BI Premium are reviewed.

By the end of this course, you will be confident in creating effective charts, tables, reports or dashboards for any kind of data using the tools and techniques in Microsoft PowerBI.

AT COURSE COMPLETION

- Build efficient data retrieval and transformation processes with the Power Query M Language
- Design scalable, user-friendly DirectQuery and Import Data Models
- Develop visually rich, immersive, and interactive reports and dashboards
- Maintain version control and stage deployments across development, test, and production environments
- Manage and monitor the Power BI Service and the On-Premises Data Gateway
- Develop a fully On-Premise Solution with the Power BI Report Server
- Scale up a Power BI solution via Power BI Premium capacity and migration to Azure Analysis Services or SQL Server Analysis Services

COURSE OUTLINE

Chapter 1: PLANNING POWER BI PROJECTS

- Power BI deployment modes
- Project discovery and ingestion
- Power BI project roles
- Power BI licenses
- Data warehouse bus matrix
- Dataset design process
- Data profiling
- Dataset planning
- Sample project analysis

Chapter 2: CONNECTING TO SOURCES AND TRANSFORMING DATA WITH M

- Query design per dataset mode
- Data sources
- SQL views
- M queries
- Query folding
- M Query examples
- M editing tools

Chapter 3: DESIGNING IMPORT AND DIRECTQUERY DATA MODELS

- Dataset objectives
- Views in Power BI Desktop
- Fact table design
- Relationships
- Hierarchies
- Custom sort orders
- Bidirectional cross-filtering
- Model metadata
- Performance optimization

Chapter 4: DEVELOPING DAX MEASURES AND SECURITY ROLES

- DAX measures
- Filter and row contexts
- DAX variables
- Base measures
- Date intelligence metrics
- Dimension metrics
- Ranking metrics
- Security roles
- Dynamic row-level security

- Performance testing

Chapter 5: CREATING AND FORMATTING POWER BI REPORTS

- Report planning
- Live connections to Power BI datasets
- Visualization best practices
- Choosing the visual
- Visual interactions
- Slicers
- What-if parameters
- Report filter scopes
- Relative date filtering
- Conditional formatting
- Mobile-optimized reports

Chapter 6: APPLYING CUSTOM VISUALS, ANIMATION, AND ANALYTICS

- Drillthrough report pages
- Bookmarks
- Custom report navigation
- The Analytics Pane
- Quick Insights
- Trend and prediction lines
- Custom visuals
- ArcGIS Map visual for Power BI
- Waterfall chart
- Microsoft Power KPI visual
- Animation and storytelling visuals

Chapter 7: DESIGNING POWER BI DASHBOARDS AND ARCHITECTURES

- Dashboards versus reports
- Dashboard design
- Multi-dashboard architectures
- Dashboard tiles
- Custom links
- Live report pages
- Mobile-optimized dashboards
- SQL Server Reporting Services integration
- Excel Workbook integration

Chapter 8: MANAGING APPLICATION WORKSPACES AND CONTENT

- Application workspaces
- Workspace roles and rights
- Staged deployments

- Power BI REST API
- OneDrive for Business version history
- Source control for M and DAX code
- Dashboard data classifications
- Dataset field descriptions
- Metadata reporting

Chapter 9: MANAGING THE ON-PREMISES DATA GATEWAY

- On-premises data gateway planning
- Gateway clusters and architectures
- Configuration of the On-premises data gateway
- Scheduled data refresh
- Dashboard tile cache refresh
- Managing gateway clusters
- Monitoring gateway usage
- Live connections to Analysis Services models
- Single sign-on DirectQuery

Chapter 10: DEPLOYING THE POWER BI REPORT SERVER

- Planning for the Power BI Report Server
- Installation and configuration of Power BI Report Server
- Power BI Desktop for Power BI Report Server
- Power BI Report Server Portal
- Scheduled data refresh and Live connections
- Power BI mobile applications
- Power BI Report Server administration
- Scaling Power BI Report Server

Chapter 11: CREATING POWER BI APPS AND CONTENT DISTRIBUTION

- Content distribution methods
- Power BI apps
- Sharing dashboards and reports
- Data Alerts and notifications
- SharePoint Online embedding
- Report and dashboard subscriptions
- Analyze in Excel
- Custom application embedding

Chapter 12: ADMINISTERING POWER BI FOR AN ORGANIZATION

- Data governance for Power BI
- Azure Active Directory conditional access policies
- Azure Active Directory B2B collaboration
- Power BI admin portal

- Power BI service Tenant settings
- Power BI activities in Audit Logs
- Using metrics reports
- Administering Power BI Premium capacities

Chapter 13: SCALING WITH PREMIUM AND ANALYSIS SERVICES

- Power BI Premium
- Power BI Premium provisioning factors
- Power BI Premium capacity allocation
- Analysis Services versus Power BI datasets
- Azure Analysis Services and SQL Server Analysis Services
- Migration from Power BI dataset to Analysis Services model