



IT264: Data Analytics and Dashboard Specialist Using Power BI

Training Description:

Organizations today rely on data-driven insights to improve operational performance, optimize decision-making, and gain a competitive advantage. Microsoft Power BI has become one of the world's leading Business Intelligence (BI) platforms, enabling organizations to transform raw data into meaningful dashboards, reports and actionable business intelligence.

This intensive training course equips participants with the practical skills required to become effective Data Analytics and Dashboard Specialists using Microsoft Power BI. The training course covers the complete analytics workflow—from data collection, cleansing, transformation, modeling, visualization, dashboard design, DAX calculations, report publishing and data sharing to advanced analytics and business storytelling. Participants will work with realistic business datasets through practical exercises, hands-on labs and case studies to develop interactive dashboards suitable for executive reporting, operational monitoring and strategic decision-making.

The training course emphasizes industry best practices in data preparation, visualization, KPI development, dashboard usability and governance to help organizations maximize the value of their data.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Understand Business Intelligence (BI) and Data Analytics concepts
- ✓ Understand Power BI architecture and components
- ✓ Import data from multiple sources
- ✓ Clean and transform data using Power Query Editor
- ✓ Build efficient data models
- ✓ Develop relationships between multiple tables
- ✓ Create calculated columns and measures using DAX
- ✓ Design interactive dashboards and reports
- ✓ Develop meaningful KPIs and business scorecards
- ✓ Create advanced visualizations
- ✓ Apply data storytelling principles
- ✓ Implement drill-through, bookmarks, filters, and slicers
- ✓ Publish reports to Power BI Service
- ✓ Share dashboards securely across the organization
- ✓ Schedule data refresh and manage datasets
- ✓ Implement Row-Level Security (RLS)
- ✓ Apply Power BI best practices for performance optimization
- ✓ Develop executive dashboards for strategic decision-making

Expected Learning Outcomes:

- ✓ Build professional-grade Power BI dashboards from raw data
- ✓ Connect, clean, transform and model data from multiple sources
- ✓ Apply DAX formulas to create advanced calculations and business metrics
- ✓ Design interactive, visually compelling reports and executive dashboards
- ✓ Implement KPI tracking, scorecards and drill-down analytics.
- ✓ Publish, secure, and share reports using Power BI Service

- ✓ Optimize report performance and apply BI governance best practices
- ✓ Translate complex datasets into clear, actionable insights that support operational, tactical and strategic decision-making across the organization

Training Designed for:

This training course is intended for Business Analysts, Data Analysts, Business Intelligence Professionals, Reporting Specialists, Project Managers, Operations Managers, Finance Professionals, HR Analysts, Sales and Marketing Analysts, Supply Chain Professionals, Procurement Officers, Engineers, IT Professionals, Database Administrators and Digital Transformation Teams, Decision Makers and Anyone responsible for reporting, dashboards and business analytics.

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

INTRODUCTION TO DATA ANALYTICS AND POWER BI FUNDAMENTALS

❖ Module 1: Introduction to Business Intelligence

- Evolution of Business Intelligence
- Data Analytics lifecycle
- Data-driven decision making
- Types of analytics
 - Descriptive
 - Diagnostic
 - Predictive
 - Prescriptive
- Business Intelligence framework

❖ Module 2: Introduction to Microsoft Power BI

- Power BI ecosystem
- Power BI Desktop
- Power BI Service
- Power BI Mobile
- Power BI Report Server
- Licensing options
- Installation and workspace setup

❖ Module 3: Understanding Data Sources

Connecting to:

- Excel
- CSV
- SQL Server

- Oracle
- Access
- SharePoint
- Web data
- Cloud databases
- APIs

❖ Module 4: Power BI Interface

- Navigation
- Report View
- Data View
- Model View
- Visualizations Pane
- Fields Pane
- Filters Pane

❖ Hands-on Workshop

Participants will:

- Install Power BI Desktop
- Connect to multiple data sources
- Import datasets
- Explore sample datasets
- Build their first report

DAY TWO:

DATA PREPARATION, CLEANSING AND DATA MODELING

❖ Module 5: Power Query Editor

❖ Understanding ETL Process

- Extract
- Transform
- Load

❖ Data cleansing techniques

- Removing duplicates
- Handling missing values
- Data formatting
- Text transformation
- Date transformation
- Number formatting
- Conditional columns
- Merge queries
- Append queries

❖ Module 6: Data Modeling

- Star Schema
- Snowflake Schema
- Fact tables
- Dimension tables
- Relationships
- Cardinality

- Cross filtering
- Best practices
- ❖ **Module 7: Data Transformation**
 - Splitting columns
 - Pivot and Unpivot
 - Group By
 - Aggregation
 - Calculated tables
- ❖ **Hands-on Workshop**
Participants will:
 - Clean messy datasets
 - Merge multiple files
 - Create relationships
 - Build optimized data models

DAY THREE:

DAX, MEASURES AND ADVANCED ANALYTICS

- ❖ **Module 8: Introduction to DAX**
- ❖ **Understanding:**
 - Calculated Columns
 - Measures
 - Tables
- ❖ **Essential DAX Functions**
- ❖ **Mathematical Functions**
- ❖ **Logical Functions**
- ❖ **Text Functions**
- ❖ **Date Functions**
- ❖ **Statistical Functions**
- ❖ **Aggregation Functions**
- ❖ **Time Intelligence Functions**
- ❖ **Module 9: KPI Development**
- ❖ **Creating:**
 - Revenue KPIs
 - Profit KPIs
 - Operational KPIs
 - Financial Ratios
 - HR Metrics
 - Customer KPIs
 - Performance Scorecards
- ❖ **Module 10: Advanced Calculations**
 - Running totals
 - Year-to-date (YTD)
 - Month-to-date (MTD)
 - Quarter-to-date (QTD)
 - Rolling averages
 - Variance analysis

- Forecast calculations
- ❖ **Hands-on Workshop**
Participants will:
 - Build calculated measures
 - Create KPI dashboards
 - Develop financial performance reports

DAY FOUR:

DASHBOARD DESIGN, VISUALIZATION AND STORYTELLING

- ❖ **Module 11: Data Visualization Principles**
- ❖ **Selecting appropriate visuals**
- ❖ **Understanding:**

- Bar charts
- Column charts
- Line charts
- Pie charts
- Donut charts
- Scatter plots
- Maps
- Tree maps
- Waterfall charts
- Funnel charts
- Gauge charts
- KPI cards
- Tables
- Matrix reports

- ❖ **Module 12: Interactive Dashboards**

Using:

- Slicers
- Filters
- Drill-through
- Drill-down
- Bookmarks
- Buttons
- Tooltips
- Navigation pages

- ❖ **Module 13: Executive Dashboard Design**

- ❖ **Dashboard layout**
- ❖ **Themes**
- ❖ **Color selection**
- ❖ **Accessibility**
- ❖ **User experience (UX)**
- ❖ **Mobile optimization**
- ❖ **Business storytelling techniques**
- ❖ **Hands-on Workshop**
Participants will design:

- Executive Dashboard
- Sales Dashboard
- HR Dashboard
- Financial Dashboard
- Operations Dashboard

DAY FIVE:

POWER BI SERVICE, COLLABORATION AND CAPSTONE PROJECT

- ❖ **Module 14: Power BI Service**
 - ❖ Publishing reports
 - ❖ Creating dashboards
 - ❖ Workspaces
 - ❖ Apps
 - ❖ Data gateways
 - ❖ Scheduling refresh
 - ❖ Version management
 - ❖ **Module 15: Security and Governance**
 - Row-Level Security (RLS)
 - Data privacy
 - Workspace permissions
 - Governance framework
 - Data certification
 - Data lineage
 - ❖ **Module 16: Performance Optimization**
 - ❖ **Improving dashboard performance**
 - Optimizing data models
 - Reducing report load time
 - Efficient DAX coding
 - Performance Analyzer
 - Query optimization
 - ❖ **Module 17: Best Practices**
 - ❖ Dashboard standards
 - ❖ Naming conventions
 - ❖ Documentation
 - ❖ Maintenance
 - ❖ Report lifecycle
 - ❖ Deployment strategies
 - ❖ Capstone Project
- Participants will complete an end-to-end business intelligence project by:
- Importing multiple datasets
 - Cleaning and transforming data
 - Building a data model
 - Creating DAX measures
 - Developing KPIs
 - Designing an executive dashboard
 - Publishing the dashboard to Power BI Service

- Presenting insights and recommendations based on the dashboard
- ❖ Course Conclusion
- ❖ POST-ASSESSMENT and EVALUATION

Practical Exercises Throughout the Course

- ❖ Participants will develop:
 - Executive Performance Dashboard
 - Sales Analytics Dashboard
 - Financial Performance Dashboard
 - HR Workforce Dashboard
 - Procurement Analytics Dashboard
 - Inventory Management Dashboard
 - Project Performance Dashboard
 - Customer Service Dashboard
 - Operations KPI Dashboard
 - Interactive Business Scorecard

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

USD\$ TBA - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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