

# Microsoft Power BI Certification Training Course

Course Curriculum: Your 14 module Learning Plan

https://www.edureka.co/learn-applied-business-intelligence-with-power-bi

#### About Edureka

Edureka is a leading e-learning platform providing live instructor-led interactive online training. We cater to professionals and students across the globe in categories like Big Data & Hadoop, Business Analytics, NoSQL Databases, Java & Mobile Technologies, System Engineering, Project Management and Programming. We have an easy and affordable learning solution that is accessible to millions of learners. With our students spread across countries like the US, India, UK, Canada, Singapore, Australia, Middle East, Brazil and many others, we have built a community of over 1 million learners across the globe.

#### **About Course**

Edureka brings you a unique opportunity to obtain dual certification in the business intelligence domain with our "Learn Microsoft Power BI: Beginners to Advanced" course which allows learners to learn two state-of-the-art BI courses from industry experts. Our first offering, Microsoft Power BI Certification Course, helps you prepare for the official PL-300 examination through its detailed coverage and practical hands-on sessions, and Applied Business Intelligence for Decision Making by PwC is an advanced industry-aligned course allowing learners to work on simulated real-world scenarios. Enroll today to stand out in the job market with dual certification in the BI domain and propel your career to the next level.

# Curriculum

## Introduction to Power BI

#### Topics:

- Introduction to Business Intelligence
- Self-Service Business Intelligence (SSBI)
- Introduction to Power BI
- Traditional BI vs. Power BI
- Power BI vs. Tableau vs. QlikView
- Uses of Power BI
- The Flow of Work in Power BI
- Working with Power BI
- Basic Components of Power BI
- Comparison of Power BI Version
- Introduction to Building Blocks of Power BI
- Data model and importance of Data Modeling

#### Hands-on:

• Installation of Power BI

#### Skills You will Learn:

- Concepts of Business Intelligence
- Power BI installation

# Power BI Desktop and Data Transformation

#### Topics:

• Data Sources in Power BI Desktop

- Loading Data in Power BI Desktop
- Views in Power BI Desktop
- Query Editor In Power BI
- Transform, Clean, Shape, and Model Data
- Manage Data Relationship
- Editing a Relationship
- Cross Filter Direction
- Saving Workfile
- Measures

#### Hands-on:

- Data Cleaning using Power BI query editor
- Creating Measures
- Transform, Clean, Shape, and Model Data for further analysis

#### Skills You will Learn:

- Data transformation using the query editor
- Shaping data with measures
- Managing Data Relationships

# Data Analysis Expression (DAX)

- Introduction to DAX
- Importance of DAX
- Data Types in DAX
- DAX Calculation Types
- Steps to Create Calculated Columns
- Measures in DAX

- DAX Syntax
- DAX Functions
- DAX Operators
- DAX Tables and Filtering

#### Hands-on:

- Creating Calculated Columns and Measures
- Performing Data Analysis using DAX

#### Skills You will Learn:

- Data Analysis using DAX
- Creating Calculated Measures and Columns

## Data Visualization

- Introduction to Visuals In Power BI
- Visualization Charts in Power BI
- Matrixes and Tables
- Slicers and Map Visualizations
- Gauges and Single Number Cards
- Modifying Colors in Charts And Visuals
- Shapes, Text Boxes, and Images
- Custom Visuals
- Page Layout and Formatting
- Bookmarks and Selection Pane
- KPI Visuals
- Z-order
- · Grouping and Bining

#### Hands-on:

- Creating different visuals
- Creating cards, measures, KPI, reference line, and slicers

#### Skills You will Learn:

- Visuals in Power BI
- Report creation
- Visuals modification
- Z-order and KPI in visuals

## Power BI Service

#### Topics:

- Introduction to Power BI Service
- Creating a Dashboard
- Quick Insights in Power BI
- Configuring a Dashboard
- Power BI Q&A
- Ask Questions about your Data
- Power BI Embedded
- Bookmarks and buttons

#### Hands-on:

- Creating reports and dashboard
- Publishing reports on Power BI Service
- Using Power BI Service for operations on reports

#### Skills You will Learn:

- Report and dashboard creation
- Designing stories with dashboards

# Connectivity Modes

#### Topics:

- Data Sources Supported in Power BI
- Exploring Live Connections to Data Sources
- Connecting Directly to SQL Azure
- Connecting Directly to SQL Server Analysis Services/My SQL
- Import Power View and Power Pivot
- Data Gateways
- Direct Query vs. Import Connectivity Modes
- Connecting Power BI in Excel

#### Hands-on:

- Setting Up On-Premise Data Gateway
- Connecting Power BI with SQL Server Database
- Connecting Reports on Power BI Service with Local Data Files

#### Skills You will Learn:

- On-Premise Data Gateway
- Connecting Power BI with Databases
- Connecting Power BI Service with Local Data Sources

# Power BI Connectivity and its Business Applications (PwC)

- Overview of the curriculum
- What is BI?
- How does a real-life project work?
- Industry standard architecture of a BI implementation project (Self paced)

- Industry-standard KPIs of Sales, Manufacturing, and Sales departments
- Power BI adoption of a manufacturing company
- Power BI connectivity modes: Import, Direct Query, and Live Connection (Self paced)
- Power BI connectivity mode with on-premise data: Files, Excel, Text/CSV, PDF files, and Folders
- Power BI connectivity mode with on-cloud data: Snowflake, Azure SQL DB, Azure Blob Storage, AWS Redshift, S3, Web, API, and Azure Analysis Service

#### Hands-on:

- Connection with Multiple Data Sources
- Erecting Architecture of BI

#### Skills You will Learn:

- Connectivity Modes
- Industrial standards of BI
- KPIs in Industries

# Data Driven Visualization and Modeling (PwC)

#### Topics:

- Industry-standard data modeling to analyze three business functional areas: Sales,
  Manufacture, and Finance
- Data Cleaning for Repost/Dashboard Creation: Column Manipulation and Adjusting Data
- DAX capabilities
- How Measures and Calculated columns can be used as per critical business requirements
- Application of Slicers, filters, Drill up, Drill Down, Drill through, and Bookmark functions in a real-life project
- Application of Scroller, Gauge, and Map in a real-life project

#### Hands-on:

- Data Modeling and Cleaning
- Manipulating Data with DAX
- Calculating Measures and Column

- Handling Visuals for Insights
- Bookmarks and Buttons

#### Skills You will Learn:

- Data Manipulation and Transformation
- Structuring Data
- Creating Visuals
- Navigating with Bookmarks

# Advanced Power BI Features and Relevant Use Cases (PwC)

#### Topics:

- Business Use-case of Time Intelligent (Self paced)
- Business Use-case of Pareto using dynamic slicer
- Business Use-case: Balance sheet
- Business Use-case of Power BI AI capabilities: Forecasting, Q&A, and Anomalies (Self paced)
- Business Use-case for "What if" Analysis and Segmentation
- Business Use-case of Power BI with Python: Data Transformation,
- Performing EDA to get insights about data distribution, and Designing visuals with Python to understand data

#### Hands-on:

- Data Modeling and Cleaning
- Manipulating Data with DAX
- Calculating Measures and Column
- Handling Visuals for Insights
- Bookmarks and Buttons

#### Skills You will Learn:

- Adjusting Time for Reports
- Visualization for EDA

- Data Transformation with Python
- Al Generated Insights
- Demonstrate What if Analysis

## Power BI - Best Practices, Essentials and Future (PwC)

#### Topics:

- Features of Fabric
- Power BI connectivity with fabric Data warehouse and One Lake
- Creating quick measures using Copilot
- Important features of Power BI Service and Report Server with their business application (Self paced)
- Industry-standard Power BI dashboard/Reports for the below business areas

#### Hands-on:

- Using Copilot
- Know Service and Report Server
- Build Reports and Dashboards
- Connecting Data Warehouse and Lake

#### Skills You will Learn:

- Fabric Capabilities
- Data Warehousing for Visuals
- Manipulating One Lake
- Application of Service and Report Server
- Paginating Reports and Dashboards

# Power BI Report Server

#### Topics:

- What is Power BI Report Server?
- Key Features of Report Server
- The architecture of the Report Server
- Limitations of Report Server
- Power BI Report Server vs. Power BI Service
- Acquiring and Installing Power BI Report Server
- What is a Web Portal?
- Paginated Reports
- Row Level Security

#### Hands-on:

- Setting Up Power BI Report Server
- Using Power BI Report Server for Publishing Reports
- Implementing Row Level Security

#### Skills You will Learn:

- Power BI Report Server
- Publishing reports on Report Server

# Integrating R & Python in Power BI

- Brief concepts about R
- R Programming Concepts
- Create R Scripts for BI
- Python Programming
- Python Scripts in BI
- Python integration with Power BI

#### Hands-on:

- Demonstrate connecting R and Python in Power BI
- Using R and Python for data analysis

#### Skills You will Learn:

- Data cleaning and transformation
- Python and R scripts
- Power BI integration

# Advanced Analytics in Power BI

#### Topics:

- Use Parameters
- Create a data flow
- Introduction to Anomaly Detection
- Introduction to Smart Narrative
- Introduction to Sensitivity labels in Power BI
- Deployment Pipeline

#### Hands-on:

- Connecting with Power BI service
- Creating dataflow
- · Creating scorecard

#### Skills You will Learn:

- Data flow creation
- Anomalies detection
- Smart Narrative implementation

# Practice Project

### Topics:

- Power BI Service
- Row Level Security
- Visuals and Charts
- Power BI Desktop
- Handling Workspaces

#### Hands-on:

- Analyze store data
- Draw conclusions from visuals created

#### Skills You will Learn:

- Sales Reports creation
- Interactive Dashboards creation