



Course Name: Power BI 101: Master the Power BI Basics and Build Impactful Reports

Contact Hours: 30 hours

Pre-requisite: Microsoft Excel

Abstract

Unlock your data potential with our Power BI course! Perfect for beginners, this course offers a practical dive into data analytics and business intelligence. Learn to transform raw data into dynamic dashboards and interactive reports through hands-on training with licensed Power BI software.

Power BI is an interactive data visualization software product developed by Microsoft with a primary focus on business intelligence.

It is part of the Microsoft Power Platform. Power BI is a collection of software services, apps, and connectors that work together to turn various sources of data into static and interactive data visualizations. Data may be input by reading directly from a database, webpage, PDF, or structured files such as spreadsheets, CSV, XML, JSON, XLSX, and SharePoint

Studying Power BI enables you to transform raw data into actionable insights with interactive dashboards and reports, boosting your analytical skills and career prospects in data-driven industries.

You'll master data connections, transformation, and visualization, guided by experienced instructors—all while earning a certificate to boost your career.

Target Audience

This course is geared towards:

- Professionals with a background in Excel
- Students

Learning Outcomes

On completion of this course, learners will be able to:

1. Understand the structure and components of Power BI.
2. Explain how Power BI builds on Excel skills to enhance data visualization.
3. Identify best practices in data visualization for effective reporting.
4. Connect Power BI to multiple data sources.
5. Utilize Power Query to transform and cleanse data.
6. Prepare data effectively for further analysis and visualization.
7. Connect Power BI to multiple data sources.
8. Utilize Power Query to transform and cleanse data.
9. Prepare data effectively for further analysis and visualization.
10. Build a variety of basic visuals in Power BI.
11. Customize charts and graphs to enhance clarity and storytelling.
12. Apply principles of effective data visualization to report creation.
13. Design integrated dashboards that provide a clear overview of key metrics.
14. Utilize layout and design principles to optimize report readability.
15. Explore and implement custom visuals to enhance data representation.
16. Implement interactive features that empower users to explore data.
17. Use bookmarks and tooltips to create dynamic storytelling experiences.
18. Enhance reports to allow for deeper, self-directed data analysis
19. Publish and manage reports in the Power BI Service.
20. Configure secure sharing and collaboration settings.
21. Understand the steps to ensure reports are accessible and interactive across teams.
22. Demonstrate the ability to apply Power BI skills in a real-world project.
23. Integrate data preparation, modeling, visualization, and interactivity into one cohesive report.
24. Articulate key takeaways and potential next steps for advancing Power BI expertise.

Course Content

Session 1: Introduction to Power BI and Data Visualization

- Overview of the Power BI ecosystem (Desktop, Service, Mobile)
- Key differences and similarities between Excel and Power BI
- Fundamental concepts of data visualization

Session 2: Connecting to Data and Data Preparation

- Connecting to various data sources (Excel, databases, online sources)
- Introduction to Power Query for data cleaning and transformation
- Data shaping and preparation for analysis

Session 3: Data Modeling Fundamentals

- Building and understanding data models
- Creating relationships between tables
- Introduction to DAX (Data Analysis Expressions) for calculated columns and measures

Session 4: Creating Impactful Visualizations – Part I

- Overview of Power BI visualizations and available chart types
- Building basic visuals: bar charts, line charts, pie charts, etc.
- Customizing visuals for clarity and impact

Session 5: Creating Impactful Visualizations – Part II & Dashboard Design

- Combining multiple visuals into cohesive dashboards
- Designing effective report layouts and storytelling with data
- Exploring custom visuals and third-party integrations

Session 6: Enhancing Report Interactivity

- Adding interactive elements: slicers, filters, drill-down features
- Utilizing bookmarks and tooltips for enhanced user engagement
- Creating dynamic and responsive reports

Session 7: Publishing, Sharing, and Collaboration

- Publishing reports to the Power BI Service
- Managing workspaces and configuring access permissions
- Best practices for sharing and collaborating on Power BI reports

Session 8: Capstone Project and Course Recap

- Hands-on project: Develop a comprehensive report/dashboard using a provided dataset
- Group discussion and Q&A to review key concepts
- Course recap and next steps for further learning