Sangy Academy

www.sangyacademy.com

🟧 COURSE TITLE: Introduction to Power BI

Duration: 3 Months (2 classes/week × 2 hours/class = 48 hours)
Total Lessons: 24
Target Audience: Beginners with basic Excel and data understanding
Learning Method: Interactive lectures, hands-on labs, real-world datasets, mini-projects

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📘 Month 1: Power BI Fundamentals & Data Preparation

🔹 Week 1: Introduction to Power BI

- **Lesson 1:** Overview of Power BI Ecosystem
    - Power BI Desktop, Service, and Mobile
    - Types of Users (Analyst, Viewer, Admin)
    - Interface tour & basic workflow
- **Lesson 2:** Connecting to Data Sources
    - Excel, CSV, Web, Database
    - Understanding data types and structures
    - Hands-on: Load your first dataset

🔹 Week 2: Data Transformation with Power Query

- **Lesson 3:** Power Query Basics
    - Query Editor overview
    - Steps, applied steps, and transformations
- **Lesson 4:** Data Cleaning Techniques
    - Removing duplicates, replacing values
    - Splitting/merging columns

        - Data type conversions

🔹 **Week 3: Shaping and Structuring Data**

- **Lesson 5:** Combining Data
    - Merging vs. appending queries
    - Joins (left, right, inner, outer)
- **Lesson 6:** Creating a Clean Data Model
    - Relationships and cardinality
    - Star and snowflake schema basics

🔹 **Week 4: Basic Visualizations**

- **Lesson 7:** Introduction to Visual Elements
    - Bar, line, pie, table, matrix
    - Customizing visuals
- **Lesson 8:** Filters, Slicers, and Drill-through
    - Visual-level, page-level, and report-level filters
    - Adding interactivity to reports

📗 **Month 2: Data Modeling & DAX**

🔹 **Week 5: Introduction to DAX**

- **Lesson 9:** What is DAX?
    - Calculated columns vs. measures
    - Syntax and basic functions
- **Lesson 10:** Common DAX Functions
    - SUM, COUNT, AVERAGE, DISTINCTCOUNT
    - Hands-on: Create basic KPIs

🔹 **Week 6: Intermediate DAX**

- **Lesson 11:** Logical and Conditional DAX
    - IF, SWITCH, AND/OR

        - Using variables
    - **Lesson 12:** Time Intelligence Functions
        - YTD, QTD, MTD
        - SAMEPERIODLASTYEAR, DATESINPERIOD

🔹 **Week 7: Advanced Data Modeling**

- **Lesson 13:** Fact and Dimension Tables
    - Building a solid model
    - Relationship troubleshooting
- **Lesson 14:** Optimizing Your Data Model
    - Reduce size, improve performance
    - Data categories and hierarchies

🔹 **Week 8: Report Design Principles**

- **Lesson 15:** Designing with Purpose
    - Layout, color, fonts, storytelling
- **Lesson 16:** Tooltips, Bookmarks & Buttons
    - Enhancing user experience
    - Page navigation and interaction

📙 **Month 3: Publishing, Sharing & Projects**

🔹 **Week 9: Power BI Service**

- **Lesson 17:** Publishing Reports to Power BI Service
    - Workspaces, dashboards, sharing
    - Scheduled refresh and gateways
- **Lesson 18:** Row-Level Security (RLS)
    - Creating roles
    - Testing RLS scenarios

- **Week 10: Real-World Mini Project 1**
  - **Lesson 19:** Project Setup
    - Define requirements
    - Choose dataset (sales, HR, finance, etc.)
  - **Lesson 20:** Project Build
    - Data modeling, DAX, visuals
- **Week 11: Real-World Mini Project 2**
  - **Lesson 21:** Project Setup (different dataset)
    - New KPIs and user personas
  - **Lesson 22:** Project Build
    - Design, publish, and present
- **Week 12: Wrap-Up & Assessment**
  - **Lesson 23:** Course Review & Best Practices
    - Summary of all concepts
    - Q&A and troubleshooting
  - **Lesson 24:** Final Assessment & Showcase
    - Short theory test
    - Group/individual project presentation

✅ **By End of the Course, Students Will Be Able To:**

- Build end-to-end reports in Power BI Desktop
- Clean, model, and analyze data
- Write basic and intermediate DAX formulas
- Create dashboards and publish them to Power BI Service
- Apply RLS and schedule data refresh
- Present their insights with storytelling techniques
