



## Analyzing and Visualizing Data with Power BI

Resume Course

### Audit Access Expires Apr 8, 2019

You lose all access to this course, including your progress, on Apr 8, 2019. Upgrade by Mar 31, 2019 to get unlimited access to the course as long as it exists on the site. [Upgrade now](#)



This course is ending in 5 hours at Mar 31, 2019 19:00 CDT. After this date, course content will be archived.

Expand All

### Start Here!

#### Welcome to the Course!

Welcome!

Course Basics

Schedule and Grading

#### Set up the Lab Environment

#### Set up the Lab Environment

Installing Power BI Desktop

Signing up for Power BI Service

#### DataSet / Examples Usage

DataSet / Examples Terms of Usage and Disclaimer

#### Pre-course survey

Survey

Survey Acknowledgement

#### 0. Introduction

##### What is Power BI?

Meet the Presenters

Introduction

Overview of Power BI

Connecting to Software as Services

Power BI Community

Summary

#### 1. Power BI Desktop Data Transformations

##### Transforming Data using Power BI Desktop

Quiz

Introduction to Power BI Desktop

Changing Locale

Goal: Complete the course

### Course Tools

Bookmarks

Updates

### Pursue a verified certificate



Upgrade (\$99)  
Learn More

### Important Course Dates

Today is Mar 31, 2019 13:32 CDT

#### Verification Upgrade Deadline

In 5 hours - Mar 31, 2019

You are still eligible to upgrade to a Verified Certificate! Pursue it to highlight the knowledge and skills you gain in this course.

Verified Certificate! Pursue it to highlight the knowledge and skills you gain in this course.

Upgrade to Verified Certificate

#### Course End

In 5 hours - Mar 31, 2019

After this date, course content will be archived.

### Course Handouts

Course Syllabus

The lab files are available in the GitHub site for this course.

Changing Locale	✓
Connecting to a Database	✓
Basic Transformations	✓
Managing Query Groups	✓
Splitting Columns	✓
Changing Data Types	✓
Working with Dates	✓
Removing and Reordering Columns	✓
Conditional Columns	✓
Connecting to Files in a Folder	✓
Merge Queries	✓
Query Dependency View	✓
Transforming Less Structured Data	✓
Enter Data	✓
Query Parameters	✓
Summary	✓
Knowledge Checks	
▼ Lab 1	✓
Lab	
Lab Overview	✓
Exercise 1: Import Data from Access Database	✓
Exercise 2: Import Data from a Folder Containing CSV Files	✓
Exercise 3: Import a Less Structured Data from an Excel File	✓
▼ 2. Power BI Desktop Modelling	
▼ Data Modelling in Power BI Desktop	
Quiz	
Introduction	✓
Managing Data Relationships	✓
Creating Calculated Columns	✓
Optimizing Models for Reporting	✓
Creating Calculated Measures	✓
Creating and Managing Hierarchies	✓
Using Calculated Tables	✓
Time Intelligence	✓
Manually Typing in a Data Table	✓
Include / Exclude	✓
Grouping / Binning	✓
Summary	✓
Knowledge Checks	
▼ Lab 2	✓
Lab	
Lab Overview	✓
Exercise 1: Manage Table Relationships	✓

Exercise 2: Last Year Comparison	✓
Exercise 3: Year to Date	✓
Exercise 4: Market Share	✓
Exercise 5: Optimize the Data Model	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>3. Power BI Desktop Visualization</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Visualizing Your Data</li> </ul> </li> </ul> </li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Quiz</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Introduction</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Pie and Treemap</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Hierarchical Axis and Concatenating</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Filter (Including TopN)</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Bar Chart with Line (Combo Chart)</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Analytics Pane</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Clustering (and Machine Learning)</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Slicer</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Focus Mode and See Data</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Date Slicer</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Map Visualizations</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>ESRI Map</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Table and Matrix</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Table Styles</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Scatter Chart</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Waterfall</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Gauge, Card, and KPI</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Coloring Charts</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Shapes, Textboxes, and Images</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Gridlines and Snap to Grid</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Knowledge Checks</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Working with Multiple Visualizations</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Quiz</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li></ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Page Layout and Formatting</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li></ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Visual Relationship</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Duplicate Page</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Categories with No Data</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Default Summarization and Categorization</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Positioning, Aligning, and Sorting Visuals</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Custom Hierarchies</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>R - Visual Integration</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Summary</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Knowledge Checks</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Lab 3</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Lab</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li></ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Lab Overview</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li></ul>	✓
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Exercise 1: Cross-Tabular Report</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li></ul>	✓

Exercise 2: Part-to-Whole Report	✓
Exercise 3: Relationship Report	✓
Exercise 4: Trend Report	✓
Exercise 5: Rank Report	✓
▼ 4. Power BI Service	
▼ Working with Power BI Service Quiz	
Introduction	✓
Overview of Dashboards and Service	✓
Uploading to Power BI Service	✓
Quick Insights	✓
Configuring a Dashboard	✓
Adding Textbox, Image Widgets	✓
Featured and Favorite Dashboard	✓
Filtering Dashboard	✓
Dashboard Settings	✓
Natural Language Queries	✓
Featured Questions	✓
Sharing a Dashboard	✓
In-Focus Mode	✓
Pinning a Live Page	✓
Custom URL and Title	✓
TV Mode and Collapse Navigation	✓
Printing Dashboard and Exporting Data	✓
Export to CSV and Excel	✓
Power BI Notifications	✓
Alerts in the Power BI Service	✓
Personal Gateway	✓
Publishing to Web	✓
Admin Portal	✓
Knowledge Checks	
▼ Viewing Power BI Dashboard	✓
Viewing in Windows App	✓
Viewing in Android App	✓
Viewing in Ipad	✓
Viewing in iPhone	✓
Summary	✓
▼ Lab 4 Lab	✓
Lab Overview	✓
Exercise 1: Upload PBI Report and Pin Visualizations	✓
Exercise 2: Share Dashboard and Update Report	✓
Exercise 3: Schedule Data Refresh	✓

5. Working with Excel

Connecting and Collaborating with Excel  
Quiz

Introduction	✓
Importing Excel Data using Simple Table	✓
Excel Workbook with Excel Data Model	✓
Connecting to Excel Workbook on OneDrive for Business	✓
Pinning Excel Tables or Visuals	✓
Analyzing Data in Excel	✓
Summary	✓
Knowledge Checks	

Lab 5  
Lab

Lab Overview	✓
Exercise 1: Upload Excel File with an Excel Table	✓

6. Direct Connectivity

Direct Connectivity  
Quiz

Introduction	✓
Direct Connectivity to SQL Azure	✓
Direct Connectivity to SQL Database	✓
Direct Connectivity to SSAS	✓
Using SSAS Connector	✓
SSAS Multi Dimensional Preview	✓
SAP HANA	✓
Summary	✓
Knowledge Checks	

Lab 6  
Lab

Lab Overview	✓
Exercise 1: Direct Connectivity From Power BI Desktop	✓
Exercise 2: Direct Connectivity From Power BI Service	✓

7. Developer API

Developer API  
Quiz

Introduction	✓
Interactive API Console	✓
Registering a Client App and Embedding a Tile	✓
Using PubNub to Push Data to a Tile	✓
Creating Custom Visuals	✓
Using Custom Visuals	✓
Power BI Embedded	✓
Summary	✓
Knowledge Checks	

▼ Lab 7	✓
Lab	
Lab Overview	✓
Exercise: Use Custom Visuals	✓
▼ 8. Mobile App	✓
▼ Mobile App	✓
Introduction	✓
Report Gallery and Search	✓
Mobile Dashboard Layout	✓
Sharing and Annotating in Power BI Mobile	✓
Taking Your Mobile Content Offline	✓
Platform Specific Features	✓
Search and Recent	✓
Limiting Access to Mobile + MAM	✓
▼ Course Wrap-up	
▼ Course Wrap-up	✓
Course Wrap-up	✓