Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Microsoft   Analyzing Data with Power BI

CODE:	LENGTH:	PRICE:
MCS_DA-100T00	32 Hours (4 days)	Request Price

Description

This course will discuss the various methods and best practices that are in line with business and technical requirements for modeling, visualizing, and analyzing data with Power BI. The course will also show how to access and process data from a range of data sources including both relational and non-relational data. This course will also explore how to implement proper security standards and policies across the Power BI spectrum including datasets and groups. The course will also discuss how to manage and deploy reports and dashboards for sharing and content distribution. Finally, this course will show how to build paginated reports within the Power BI service and publish them to a workspace for inclusion within Power BI.

Objectives

- Ingest, clean, and transform data
- Model data for performance and scalability
- Design and create reports for data analysis
- Apply and perform advanced report analytics
- Manage and share report assets
- Create paginated reports in Power BI

Audience

The audience for this course are data professionals and business intelligence professionals who want to learn how to accurately perform data analysis using Power BI. This course is also targeted toward those individuals who develop reports that visualize data from the data platform technologies that exist on both in the cloud and on-premises

Prerequisites

Successful Data Analysts start this role with experience of working with data in the cloud. Specifically:
- Understanding core data concepts.
- Knowledge of working with relational data in the cloud.
- Knowledge of working with non-relational data in the cloud.
- Knowledge of data analysis and visualization concepts.
- You can gain the prerequisites and a better understanding of working with data in Azure by completing Microsoft Azure Data Fundamentals before taking this course.

Programme

Module 1: Get Started with Microsoft Data Analytics
This module explores the different roles in the data space, outlines the important roles and responsibilities of a Data Analysts, and then explores the landscape of the Power BI portfolio.
Lessons
Data Analytics and Microsoft
Getting Started with Power BI

Lab : Getting Started
Getting Started

After completing this module, you will be able to:

Explore the different roles in data
Identify the tasks that are performed by a data analyst
Describe the Power BI landscape of products and services
Use the Power BI service

Module 2: Prepare Data in Power BI
This module explores identifying and retrieving data from various data sources. You will also learn the options for connectivity and data storage, and understand the difference and performance implications of connecting directly to data vs. importing it.
Lessons
Get data from various data sources
Optimize performance
Resolve data errors

Lab : Preparing Data in Power BI Desktop
Prepare Data

After completing this module, you will be able to:
Identify and retrieve data from different data sources
Understand the connection methods and their performance implications
Optimize query performance
Resolve data import errors

Module 3: Clean, Transform, and Load Data in Power BI
This module teaches you the process of profiling and understanding the condition of the data. They will learn how to identify anomalies, look at the size and shape of their data, and perform the proper data cleaning and transforming steps to prepare the data for loading into the model.
Lessons
Data shaping
Enhance the data structure
Data Profiling

Lab : Transforming and Loading Data
Loading Data

After completing this module, students will be able to:
Apply data shape transformations
Enhance the structure of the data
Profile and examine the data

Module 4: Design a Data Model in Power BI
This module teaches the fundamental concepts of designing and developing a data model for proper performance and scalability. This module will also help you understand and tackle many of the common data modeling issues, including relationships, security, and performance.
Lessons
Introduction to data modeling
Working with tables
Dimensions and Hierarchies

Lab : Data Modeling in Power BI Desktop
Create Model Relationships
Configure Tables
Review the model interface
Create Quick Measures

Lab : Advanced Data Modeling in Power BI Desktop
Configure many-to-many relationships
Enforce row-level security

After completing this module, you will be able to:
Understand the basics of data modeling
Define relationships and their cardinality
Implement Dimensions and Hierarchies
Create histograms and rankings

Module 5: Create Measures using DAX in Power BI
This module introduces you to the world of DAX and its true power for enhancing a model. You will learn about aggregations and the concepts of Measures, calculated columns and tables, and Time Intelligence functions to solve calculation and data analysis problems.

Lessons
Introduction to DAX
DAX context
Advanced DAX

Lab : Introduction to DAX in Power BI Desktop
Create calculated tables
Create calculated c
olumns
Create measures
Lab : Advanced DAX in Power BI Desktop
Use the CALCULATE() function to manipulate filter context
use Time Intelligence functions

After completing this module, you will be able to:
Understand DAX
Use DAX for simple formulas and expressions
Create calculated tables and measures
Build simple measures
Work with Time Intelligence and Key Performance Indicators

Module 6: Optimize Model Performance
In this module you are introduced to steps, processes, concepts, and data modeling best practices necessary to optimize a data model for enterprise-level performance.
Lessons
Optimze the model for performance
Optimize DirectQuery Models
Create and manage Aggregations

After completing this module, you will be able to:
Understand the importance of variables
Enhance the data model
Optimize the storage model
Implement aggregations

Module 7: Create Reports
This module introduces you to the fundamental concepts and principles of designing and building a report, including selecting the correct visuals, designing a page layout, and applying basic but critical functionality. The important topic of designing for accessibility is also covered.
Lessons
Design a report
Enhance the report

Lab : Designing a report in Power BI
Create a live connection in Power BI Desktop
Design a report
Configure visual fields adn format properties

Lab : Enhancing Power BI reports with interaction and formatting
Create and configure Sync Slicers
Create a drillthrough page
Apply conditional formatting
Create and use Bookmarks

After completing this module, you will be able to:
Design a report page layout
Select and add effective visualizations
Add basic report functionality
Add report navigation and interactions
Improve report performance
Design for accessibility

Module 8: Create Dashboards
In this module you will learn how to tell a compelling story through the use of dashboards and the different navigation tools available to provide navigation. You will be introduced to features and functionality and how to enhance dashboards for usability and insights.

Lessons
Create a Dashboard
Real-time Dashboards
Enhance a Dashboard

Lab : Designing a report in Power BI Desktop - Part 1
Create a Dashboard
Pin visuals to a Dashboard
Configure a Dashboard tile alert
Use Q&A to create a dashboard tile

After completing this module, students will be able to:
Create a Dashboard
Understand real-time Dashboards
Enhance Dashboard usability

Module 9: Create Paginated Reports in Power BI
This module will teach you about paginated reports, including what they are how they fit into Power BI. You will then learn how to build and publish a report.
Lessons
Paginated report overview
Create Paginated reports

Lab : Creating a Paginated report
Use Power BI Report Builder
Design a multi-page report layout
Define a data source
Define a dataset
Create a report parameter
Export a report to PDF

After completing this module, you will be able to:
Explain paginated reports
Create a paginated report
Create and configure a data source and dataset
Work with charts and tables
Publish a report

Module 10: Perform Advanced Analytics
This module helps you apply additional features to enhance the report for analytical insights in the data, equipping you with the steps to use the report for actual data analysis. You will also perform advanced analytics using AI visuals on the report for even deeper and meaningful data insights.
Lessons
Advanced Analytics
Data Insights through AI visuals

Lab : Data Analysis in Power BI Desktop
Create animated scatter charts
Use teh visual to forecast values
Work with Decomposition Tree visual
Work with the Key Influencers visual

After completing this module, you will be able to:
Explore statistical summary
Use the Analyze feature
Identify outliers in data
Conduct time-series analysis
Use the AI visuals
Use the Advanced Analytics custom visual

Module 11: Create and Manage Workspaces
This module will introduce you to Workspaces, including how to create and manage them. You will also learn how to share content, including reports and dashboards, and then learn how to distribute an App.

Lessons
Creating Workspaces
Sharing and Managing Assets

Lab : Publishing and Sharing Power BI Content
Map security principals to dataset roles
Share a dashboard
Publish an App

After completing this module, you will be able to:
Create and manage a workspace
Understand workspace collaboration
Monitor workspace usage and performance
Distribute an App

Module 12: Manage Datasets in Power BI
In this module you will learn the concepts of managing Power BI assets, including datasets and workspaces. You will also publish datasets to the Power BI service, then refresh and secure them.
Lessons
Parameters
Datasets

After completing this module, you will be able to:
Create and work with parameters
Manage datasets
Configure dataset refresh
Troubleshoot gateway connectivity

Module 13: Row-level security
This module teaches you the steps for implementing and configuring security in Power BI to secure Power BI assets.
Lessons
Security in Power BI
                              Understand the aspects of Power BI security
After completing this module, you will be able to: Configure row-level security roles and group memberships

Session Dates

Su richiesta. Contattaci al n.ro +39 0471 099134 oppure via mail a training.ecs.it@arrow.com

Informazioni aggiuntive

Questa formazione è disponibile anche come formazione in loco. Per favore, contattaci per saperne di più.