PL - 300 : Power BI Data Analyst Associate

Course Outline

Module 1: Get Started with Microsoft Data Analytics
Lessons
- Data Analytics and Microsoft
- Getting Started with Power BI

Lab: Getting Started in Power BI Desktop
- Getting Started

After completing this module, students will be able to:
- Explore the different roles in data
- Identify the tasks 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
Lessons
- Get data from various data sources

Lab: Preparing Data in Power BI Desktop
- Prepare Data

After completing this module, students will be able to:
- Identify and retrieve data from different data sources
- Understand connection methods and their performance implications
- Use Microsoft Dataverse
- Connect to a data flow

Module 3: Clean, Transform, and Load Data in Power BI
Lessons
- Data shaping
- Enhance the data structure
- Data Profiling

Lab: Transforming and Loading Data in Power BI Desktop
- 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
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, students 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 Model Calculations using DAX in Power BI

Lessons

- Introduction to DAX
- DAX context
- Advanced DAX

Lab: Advanced DAX in Power BI Desktop

- Use the CALCULATE() function to manipulate filter context
- Use Time Intelligence functions

Lab: Introduction to DAX in Power BI Desktop

- Create calculated tables
- Create calculated columns
- Create measures

After completing this module, students 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 Power BI

Lessons

- Optimize the model for performance
- Optimize DirectQuery Models
- Create and manage Aggregations

After completing this module, students will be able to:

- Understand the importance of variables
- Enhance the data model
- Optimize the storage model
- Implement aggregations

Module 7: Create Reports in Power BI

Lessons

- Design a report
- Enhance the report

Lab: Designing a report in Power BI Desktop

- Create a live connection in Power BI Desktop

- Design a report
- Configure visual fields and format properties

Lab: Enhancing reports with interaction and formatting in Power BI Desktop

- Create and configure Sync Slicers
- Create a drillthrough page
- Apply conditional formatting
- Create and use Bookmarks

After completing this module, students 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 Power BI

Lessons

- Create a Dashboard
- Real-time Dashboards
- Enhance a Dashboard

Lab: Creating a Dashboard in Power BI Service

- 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: Enhance Reports for Usability and Storytelling in Power BI

Lessons

- Paginated report overview
- Create Paginated reports

Lab: Creating a Paginated report in Power BI Desktop

- 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, students 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 in Power BI

Lessons

- Advanced Analytics
- Data Insights through AI visuals

Lab: Data Analysis in Power BI Desktop

- Create animated scatter charts
- Use the visual to forecast values
- Work with Decomposition Tree visual
- Work with the Key Influencers visual

After completing this module, students will be able to:

- Explore statistical summary
- Use the Analyze feature
- Identify outliers in data
- Conduct time-series analysis
- Use AI visuals
- Use the Advanced Analytics custom visual

Module 11: Manage Datasets in Power BI

Lessons

- Parameters
- Datasets
- Security in Power BI

After completing this module, students will be able to:

- Create and work with parameters
- Manage datasets
- Configure dataset refresh
- Troubleshoot gateway connectivity
- Understand aspects of Power BI security
- Configure row-level security roles and group memberships

Module 12: Create and Manage Workspaces in Power BI

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