Course Description

CAP2743C | Power BI - Data Visualization and Analysis | 4.00 credits

This is the second of two introductory courses aimed at preparing students for the Microsoft Power BI certification exam. Students will learn how to create informative data visualizations and leverage Power BI's analytic capabilities to provide meaningful business insights. Prerequisite: CAP2791C.

Course Competencies:

Competency 1: The student will demonstrate the ability to create visualizations and reports by:
1. Choosing an appropriate visualization type, such as a matrix, KPI, tree map, scatterplot, clustered column, bar charts, map, etc
2. Formatting and configuring visualizations
3. Adding visualization items to reports
4. Importing a custom visual
5. Configuring conditional formatting and small multiples
6. Applying slicing and filtering
7. Adding an R or Python visual
8. Adding a Smart Narrative visual to provide a quick summary
9. Creating a paginated report
10. Configuring report pages, including automatic page refreshes
11. Designing and configuring visuals and reports for accessibility
12. Creating a PivotTable from a Power BI dataset in Excel

Competency 2: The student will demonstrate the ability to create dashboards by:
1. Managing tiles on a dashboard
2. Pinning a live report page to a dashboard
3. Adding a dashboard theme
4. Setting a mobile view
5. Configuring data alerts
6. Using the Q&A feature

Competency 3: The student will demonstrate the ability to enrich reports by:
1. Configuring bookmarks and navigation
2. Creating custom tooltips
3. Configuring the interactions between visuals and the ability to drill down into the data
4. Applying sorting, drill through and cross filter
5. Configuring Sync Slicers
6. Using the selection pane
7. Exporting report data
8. Designing reports for mobile devices

Competency 4: The student will demonstrate the ability to provide insights in reports by:
1. Applying conditional formatting, slicers and filters
2. Performing top N analysis
3. Exploring statistical summaries
4. Using the Q&A visual
5. Adding a Quick Insights result to a report
6. Creating reference lines by using the Analytics pane
7. Using the Play Axis feature of a visualization
8. Activating the Personalize Visuals features to allow users to customize a report

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Competency 5: The student will demonstrate the ability to perform a variety of analysis by:
1. Identifying outliers
2. Using anomaly detection
3. Conducting a time series analysis
4. Using groupings and binning
5. Using the Key Influencers to explore dimensional variances
6. Using the decomposition tree visual to break down a measure
7. Applying AI Insights

Competency 6: The student will demonstrate the ability to manage and maintain datasets by:
1. Configuring a dataset scheduled refresh and incremental refresh settings
2. Configuring row-level security group membership and providing access to datasets
3. Promoting or certifying Power BI datasets
4. Identifying downstream dataset dependencies
5. Configuring large dataset format

Competency 7: The student will demonstrate the ability to create and manage workspaces by:
1. Describing the purpose of a workspace
2. Configuring and updating a workspace and workspace app
3. Publishing, importing, and updating assets in a workspace
4. Assigning workspace roles
5. Applying sensitivity labels to workspace content
6. Recommending a development lifecycle strategy
7. Using deployment pipelines
8. Configuring subscriptions
9. Promoting or certifying selected content

<u>Learning Outcomes:</u>
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Use computer and emerging technologies effectively