ADPHA CPD

Data visualisation: essential Excel and Power BI functions for pharmacy

ONLINE COURSE

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Course outline

Area	Learning objectives
Part Zero: Data connection set up	• Import sample Excel data into both Power BI and Excel workspaces using appropriate connection methods • Demonstrate the basic steps for establishing data connections in both Power BI and Excel • Verify successful data connections by confirming data accessibility in both platforms • Troubleshoot common connection issues that may arise during the setup process
Part One: Using Excel to total the biggest medication movers in the data set	• Generate simple column graphs using imported data • Create column graphs to visualise medication dispensing patterns • Compare the effectiveness of different chart types for presenting negative values • Analyse medication movement trends using Excel's visualisation tools
Part Two: Using Power BI to total the biggest medication movers in the data set	• Create column graphs in Power BI to display medication movements • Transform raw dispensing data into meaningful visual representations in Excel and Power BI • Compare the functionality of Power BI and Excel for column graph creation
Part Three: Tracking stock movement changes over time in Excel (data trends and changes)	• Create week, month and year formulae to facilitate detailed data analysis • Create line graphs to track continuous stock movement data • Interpret temporal patterns in medication stock levels • Select appropriate time intervals for meaningful trend analysis
Part Four: Tracking stock movement changes over time in Power BI (data trends and changes)	• Create week, month and year formulae to facilitate detailed data analysis • Combine multiple data types in a single visualisation using dual axes • Explain how to create composite charts showing two types of data over time or across categories • Analyse relationships between different stock movement variables using Power BI
Part Five: Using box and whisker plots in Excel	• Explain what a box and whisker plot is, including how and when it can be used to visually represent data • Construct box and whisker plots in Excel to analyse dispensary workload patterns • Identify dispensary busy periods over a series of weeks in the data set • Identify outliers in dispensary activity data using created box and whisker plots • Interpret the statistical significance of workload variations using created box and whisker plots

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Part Six: Using box and whisker plots in Power BI	• Construct box and whisker plots in Power BI to analyse dispensary workload patterns • Identify dispensary busy periods over a series of weeks in the data set • Apply slicers to the data to filter and analyse specific time periods • Evaluate patterns in dispensary workload distribution using Power BI functionalities
Part Seven: Creating a table in Data Analysis Expressions (DAX) for core data modelling in Power BI	• Explain what Data Analysis Expressions (DAX) is, and how it compares to Excel formulas • Construct a date table in Power BI using DAX expressions • Explain how DAX can be used to manage time-based calculations in data • Generate date relationships in the data set
Part Eight: Creating a table in Power Query Editor (PQE) for core data modelling in Power BI	• Explain what Power Query Editor (PQE) is, and how it compares to DAX • Create a date table using Power Query Editor (PQE) • Compare DAX and PQE methods for date table creation • Implement data model relationships using the created date table
Part Nine: Flexible data analysis in Excel	• Explain how variable cells can be used to enable user-driven searching of patterns • Create variable cells for dynamic data filtering • Create interactive dashboards using Excel's native features • Create dynamic named ranges to enable data filtering and visualisation
Part Ten: Flexible data analysis in Power BI	• Explain how parameters can be used to enable user-driven searching of patterns • Create parameters using DAX in Power BI to implement dynamic data filtering • Create measures that respond to user-driven selections • Design interactive visualisations with parameter-driven filtering
Part Eleven: Improving flexible analysis and visuals	• Develop parameters in Power Query Editor (PQE) • Compare DAX and PQE approaches to parameter creation • Implement dynamic data filtering using PQE parameters