POWER BI WORKSHOP

INTRODUCTION

In an era where data fuels progress, understanding and interpreting information effectively is a key skill. The Power BI workshop offers an incredible opportunity to learn how to transform complex datasets into actionable insights. With hands-on guidance, participants delve into data visualization techniques, creating impactful dashboards and reports. This workshop caters to professionals and students eager to enhance their analytical skills and make informed decisions in various industries. Join us to discover how Power BI bridges the gap between data and impactful storytelling.

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WHAT IS POWER BI ?

A Microsoft business analytics tool that transforms raw data into visuals, builds interactive dashboards, and analyzes trends for smarter decisions. Used by professionals in fields like finance, marketing, and education.

PRIMARY COMPONENTS OF POWER BI:

- Semantics Models: Combine connected data, transformations, relationships, and calculations.
- Visualizations: Drag-and-drop interface to create visuals directly on the canvas.
- Power BI Desktop: Downloadable tool for creating, saving, and publishing reports.
- Building Dashboards: Dashboards are made up of tiles that tell a story. They are interactive, allowing users to hover over tiles for more details and open linked reports for deeper insights.

HANDS-ON EXERCISE

- **Data Preparation:**
Downloaded sample datasets and cleaned them using Power Query by removing duplicates, renaming columns, and formatting data.
- **Data Modeling:**
Created relationships between tables and added calculated columns and measures to analyze data, such as total sales and average revenue.
- **Report Building:**
Designed a report with:
– A title to describe the purpose.
– Three visuals: A bar chart for product sales, a line chart for monthly trends, and a pie chart for sales by region.
– A slicer to filter data interactively by region or category.
- **Dashboard Creation:**
Combined key visuals into a one-page dashboard, adding interactivity with slicers and hover-over details.
- **Publishing:**
Published the report to the Power BI Service, allowing it to be shared and accessed online.

EXECUTIVE SUMMARY

Power BI offers several advantages that makes it a powerful tool for data analysis and visualisation. It integrates with other Microsoft tools such as Excel and Azure to perform data analysis tasks. Power BI allows users to create a wide range of visualizations, making data more accessible and understandable for clients. By presenting data in a visually appealing and interactive interface, Power BI helps clients understand insights more effectively. Overall, Power BI lets users to make data-driven decisions by providing powerful tools for data analysis and visualization and collaboration.

REFLECTION

The Power BI workshop demonstrated the immense potential of data visualization in decision-making. It taught me how to transform raw data into interactive dashboards and insightful visuals, showcasing the tool's flexibility and practicality. The project provided valuable insights into Power BI's seamless integration within the Microsoft ecosystem for data analysis. Seeing meaningful trends derived from complex datasets underscored the importance of data-driven strategies in sectors like finance, marketing, and education. Overall, the workshop equipped me with essential skills and inspired further exploration of innovative tools to enhance analytical abilities.

SYAZWINA MARSYA BINTI SHAHRIZAN A24CS0196

OSAMA HAMOOD A22EC4025

MOMEN ELGASIM MOHAMED A24CS0021

RUJITHRAA NAIR A/P K.RAMESH A24CS0181

SITI MAISARAH BINTI AHMAD ARZMY A24CS0190