Data Analysis and Visualisation with Power BI

Overview:
In this project, I undertook a comprehensive learning journey through the Power BI Skillable Labs, which provided me with practical hands-on experience in data analysis and visualisation. Over the course of 11 labs, I built a solid foundation in working with Power BI, covering various aspects of data manipulation, modelling, DAX calculations, report design, and security enforcement. Each lab focused on a specific skill set, enabling me to develop a robust understanding of Power BI's capabilities and how to apply them effectively for data analysis and reporting.

- **Lab 1: Get Data in Power BI Desktop** – Learned how to connect to different data sources and import data into Power BI.
- **Lab 2: Load Transformed Data in Power BI Desktop** – Focused on transforming raw data into a clean and usable format for analysis.
- **Lab 3: Design a Data Model in Power BI** – Developed skills in creating structured and well-organised data models, ensuring efficient querying and reporting.
- **Lab 4: Create DAX Calculations in Power BI Desktop** – Mastered the basics of Data Analysis Expressions (DAX) to perform calculations within Power BI.
- **Lab 5: Create Advanced DAX Calculations in Power BI Desktop** – Expanded my understanding of DAX by working with more complex formulas and functions.
- **Lab 6: Create Visual Calculations in Power BI Desktop** – Focused on applying DAX to create dynamic and interactive visual elements in reports.
- **Lab 7: Design a Report in Power BI Desktop** – Learned how to design comprehensive, user-friendly reports that effectively communicate data insights.
- **Lab 8: Create a Power BI Dashboard** – Gained hands-on experience in building dashboards that provide a snapshot of key performance indicators (KPIs) and data trends.
- **Lab 9: Enhance a Report in Power BI Desktop** – Improved reports by adding interactive features and refining design elements for greater clarity and engagement.
- **Lab 10: Perform Data Analysis in Power BI** – Developed analytical skills to interpret data, identify patterns, and generate actionable insights.
- **Lab 11: Enforce Row-Level Security** – Learned how to implement row-level security to control data access based on user roles.

Throughout this learning experience, I have become proficient in transforming complex datasets into clear and insightful visualisations. My key strengths in data visualisation include:

Selecting the Right Visual Representation: I excel at choosing the most suitable chart types for different data sets, whether it's bar charts, line graphs, or scatter plots.

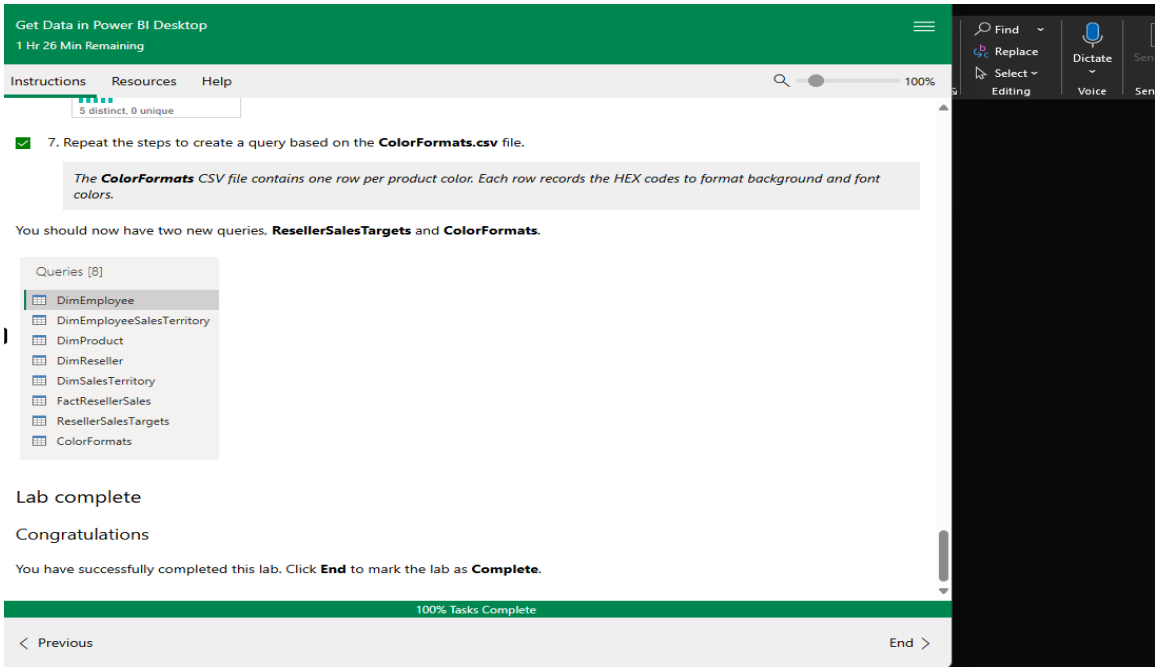
My focus is on selecting the chart type that best communicates the insights and effectively conveys the intended message.

Applying Colour and Design Principles: I use thoughtful colour schemes and design principles to emphasize critical information, ensuring that charts and reports are not only visually appealing but also easy for viewers to understand and interpret.

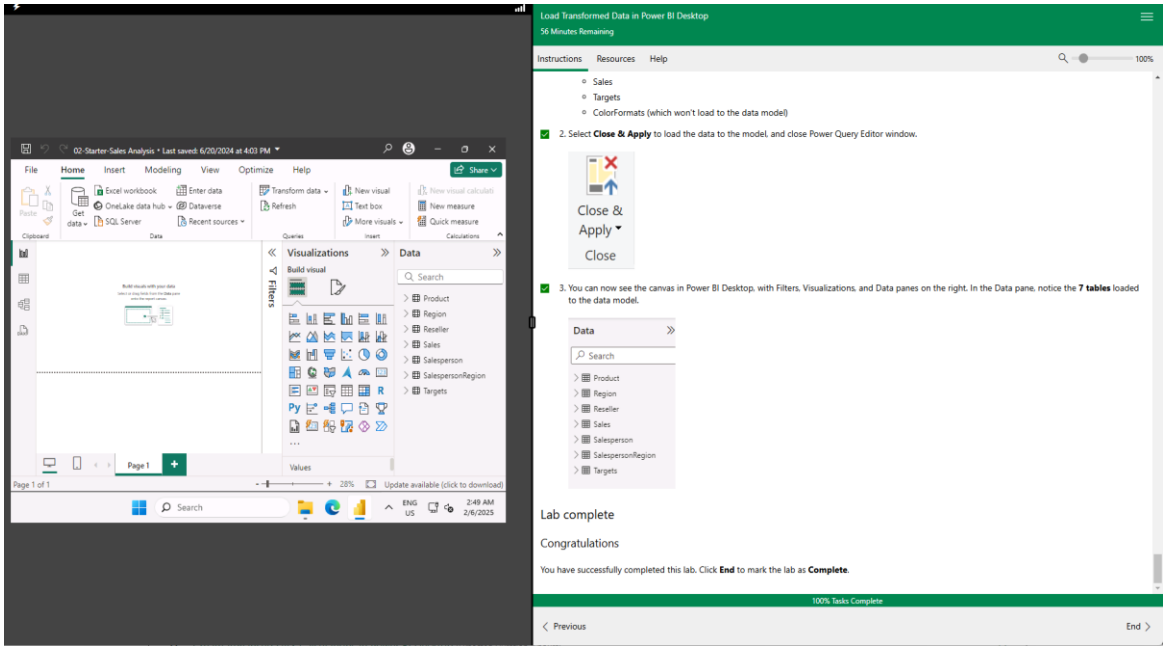
Creating Interactive Data Visuals: I specialise in building dynamic, interactive dashboards and visualisations with tools like Power BI. These visuals allow users to explore and interact with data, providing a deeper and more personalized understanding of the insights.

Crafting Data Narratives: I have a strong ability to weave data into a compelling narrative, guiding audiences through the key insights and helping them relate to the story behind the numbers. This approach ensures that my presentations are both engaging and impactful, making complex data accessible and meaningful.

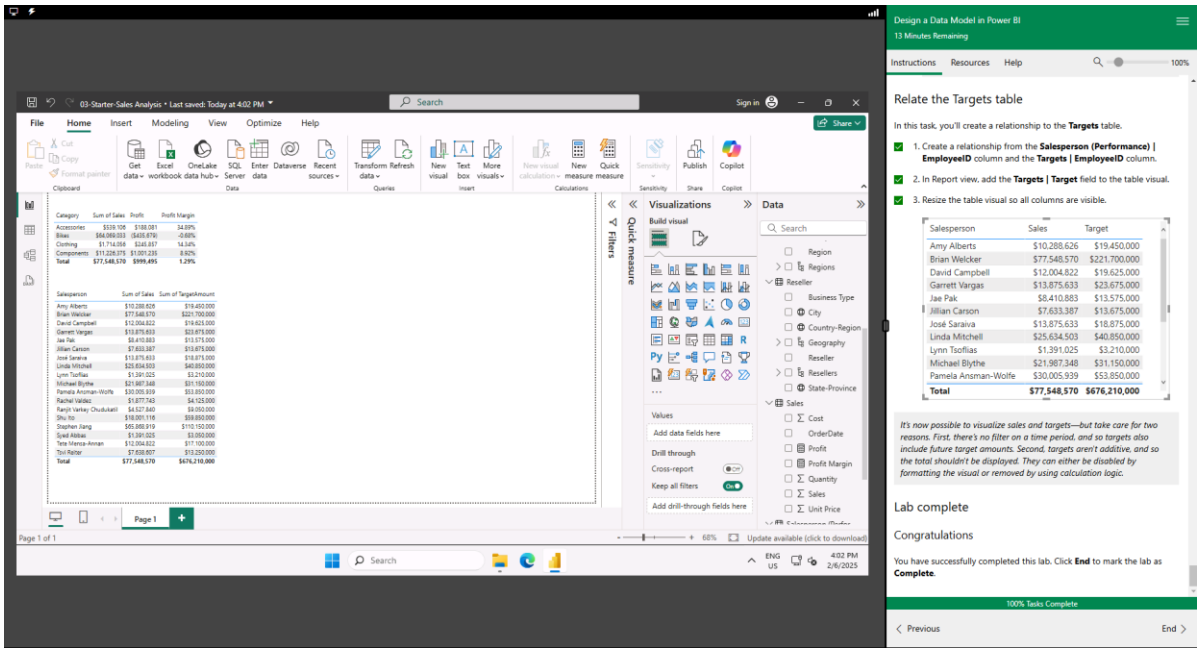
Lab 1: Get Data in Power Bi Desktop.



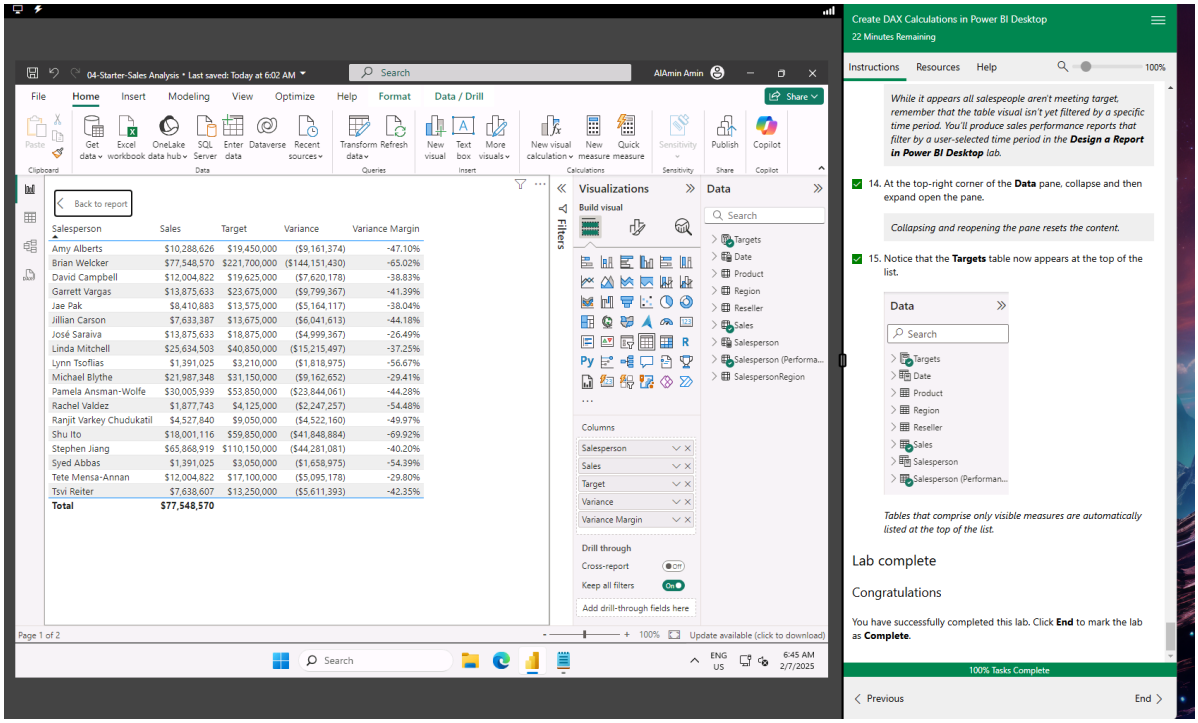
Lab 2: Load Transformed Data in Power BI Desktop.



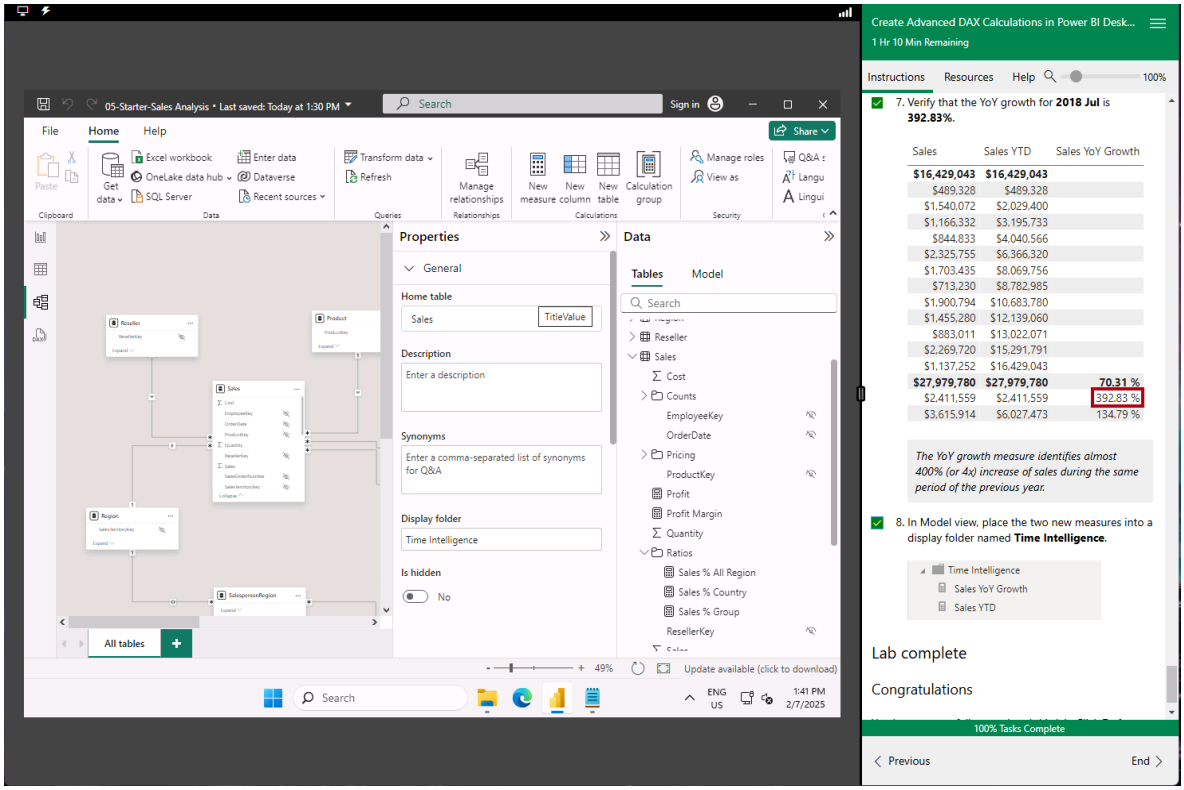
Lab 3: Design a Data Model in Power BI.



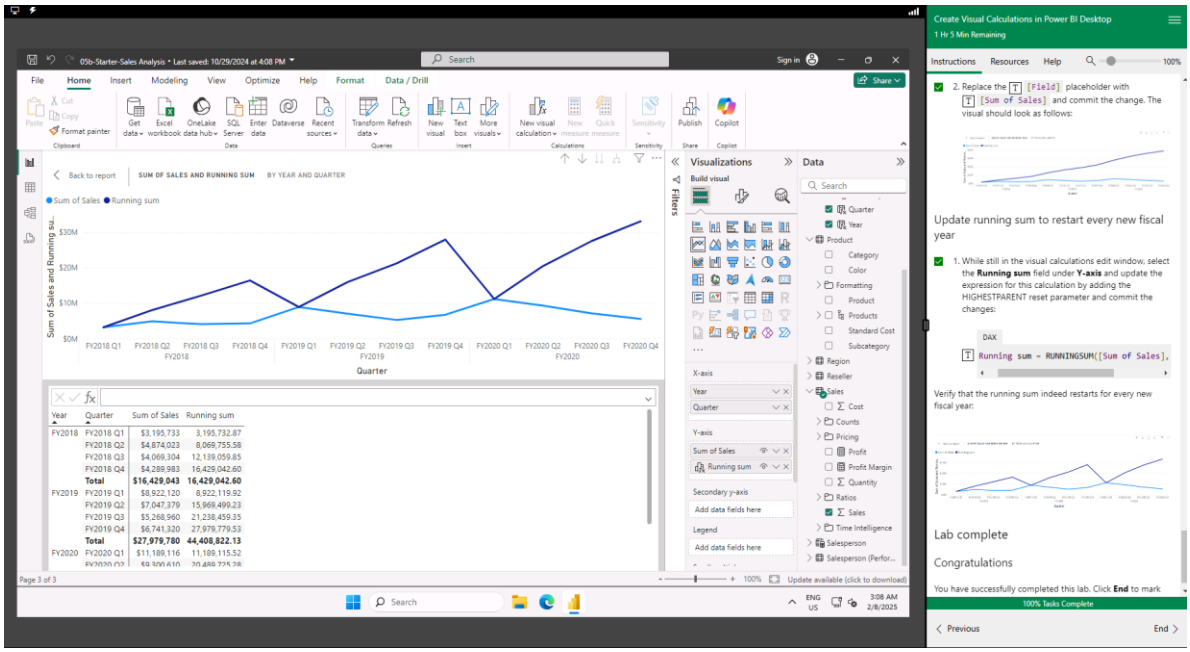
Lab 4: Create DAX Calculations in Power BI Desktop.



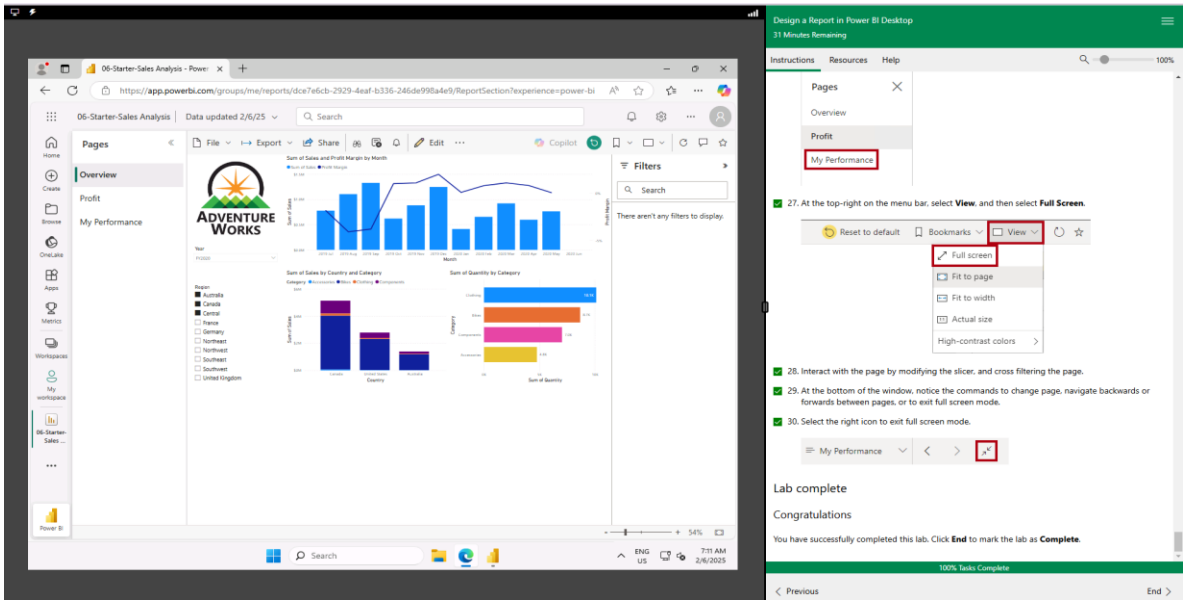
Lab 5: Create Advanced DAX Calculations in Power BI Desktop.



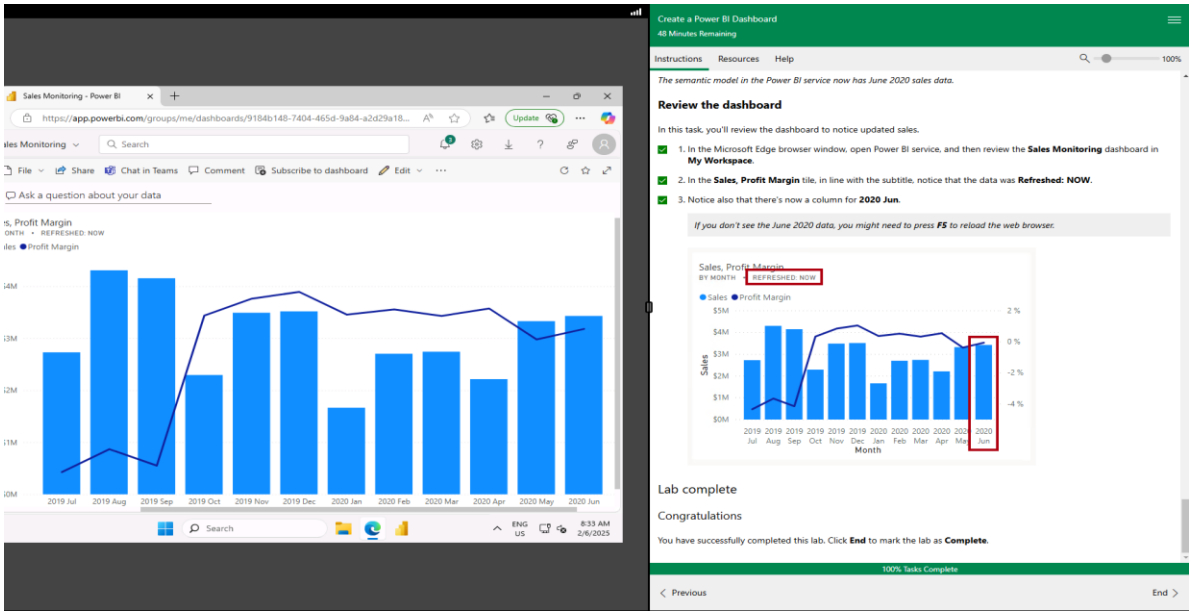
Lab 6: Create Visual Calculations in Power BI Desktop.



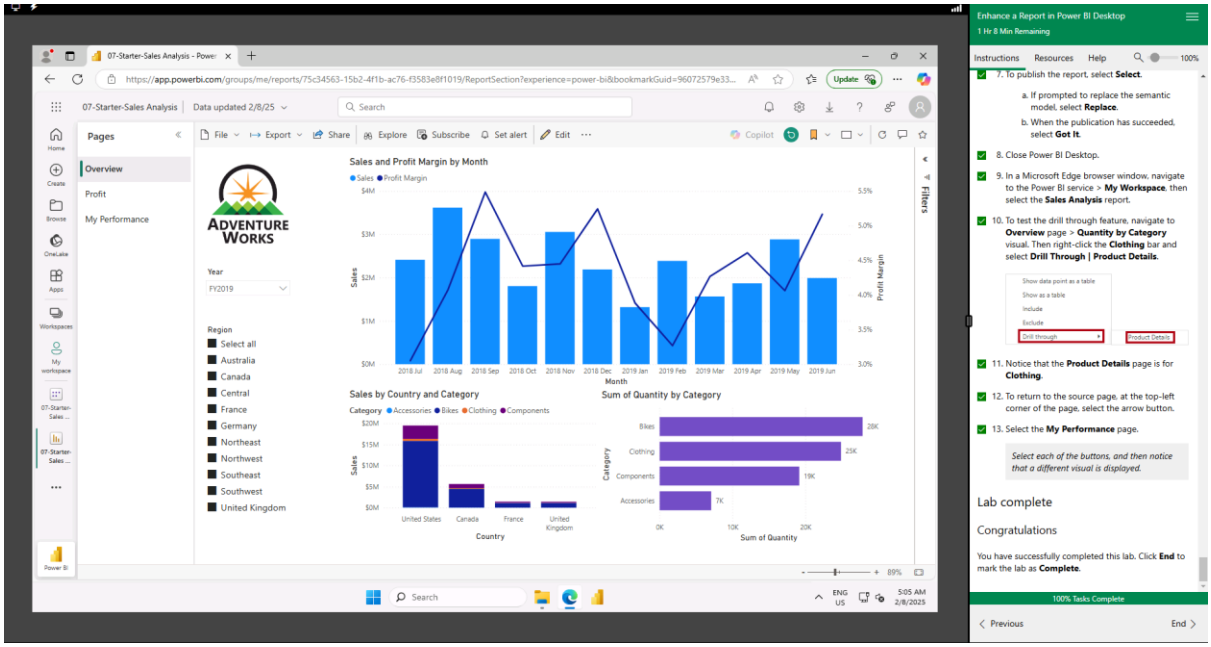
Lab 7: Design a Report in Power BI Desktop.



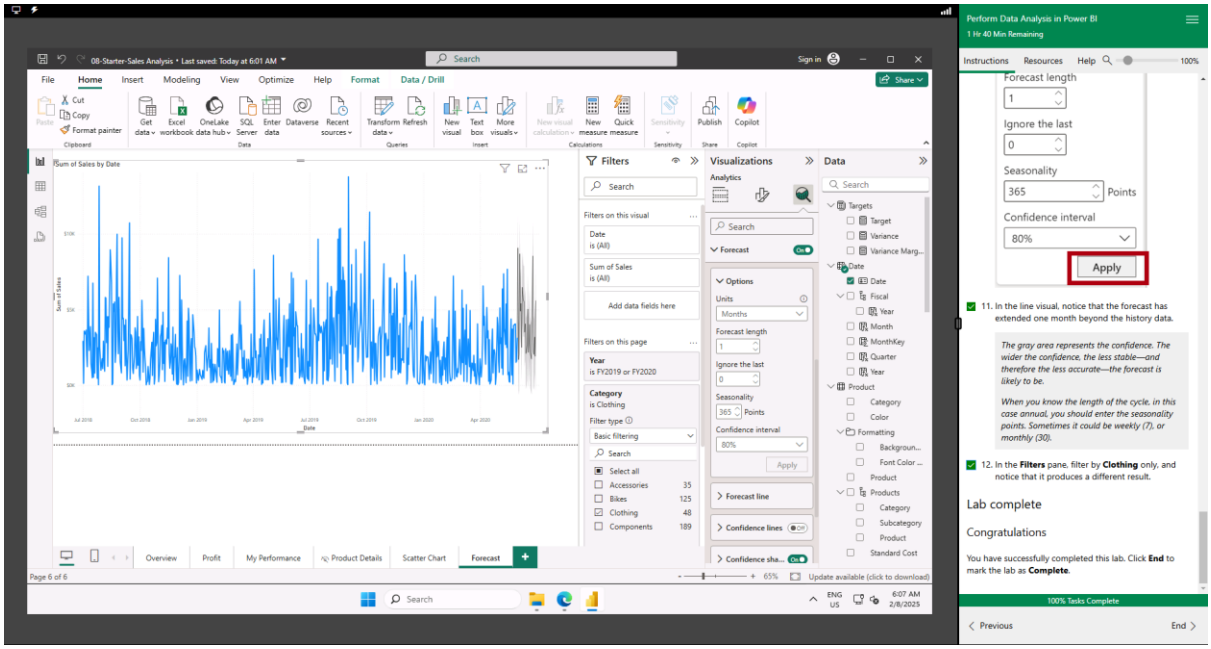
Lab 8: Create a Power BI Dashboard.



Lab 9: Enhance a Report in Power BI Desktop.



Lab 10: Perform Data Analysis in Power BI.



Lab 11 Enforce Row-Level Security.