Training Course on Advanced Data Visualization with Tableau/Power BI

Professional Development Training Course Outline

Category	Data Science	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Training Course on Advanced Data Visualization with Tableau/Power BI is meticulously designed to empower professionals with the cutting-edge skills needed to transform complex datasets into compelling, interactive, and insightful dashboards. In today's data-driven world, the ability to effectively **visualize data** is paramount for uncovering hidden patterns, communicating critical business intelligence, and driving **strategic decision-making**. Participants will master advanced techniques in both Tableau and Power BI, two industry-leading **Business Intelligence (BI) tools**, to create impactful visual narratives that resonate across all organizational levels.

Through a blend of practical exercises, real-world case studies, and expert-led instruction, this program goes beyond basic charting to delve into **dashboard design principles**, **performance optimization**, and **data storytelling**. Learners will develop the expertise to build highly **interactive dashboards** that enable deep data exploration, integrate diverse data sources, and incorporate advanced analytical features. This course is crucial for anyone looking to elevate their analytical capabilities and become a **data visualization expert**, transforming raw data into actionable insights for competitive advantage and **organizational growth**.

Programme Curriculum

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Course Duration

5 days

Course Objectives

1. Gain expertise in both platforms for sophisticated **data modeling** and **dashboard creation**.
2. Develop dynamic, user-friendly dashboards for enhanced **data exploration** and **self-service analytics**.
3. Craft compelling narratives with data to influence **strategic decision-making** and **stakeholder engagement**.
4. Learn techniques for efficient **big data visualization** and **query optimization**.
5. Utilize complex visualizations like **Sankey diagrams**, **treemaps**, and **geospatial analysis**.
6. Connect and blend data from various sources for holistic **business intelligence**.
7. Understand best practices for securing sensitive data within dashboards.
8. Incorporate forecasting and statistical models directly into visualizations.
9. Extend Tableau and Power BI capabilities with **custom visualizations** and extensions.
10. Design intuitive interfaces and ensure **accessibility** for all users.
11. Efficiently identify and resolve issues in complex dashboards.
12. Understand the role of **Artificial Intelligence** in automated insight generation.
13. Grasp emerging concepts like **real-time dashboards** and **immersive analytics**.

Organizational Benefits

- Faster, more accurate, and data-driven decisions at all levels.
- A more data-savvy workforce capable of interpreting and utilizing complex information.
- Streamlined processes through real-time monitoring and insightful performance dashboards.
- Ability to identify market trends, opportunities, and risks more rapidly.
- Clearer dissemination of insights across departments and with stakeholders.
- Informed decisions leading to more effective use of company resources.
- Maximizing the value extracted from existing data infrastructure and BI tools.
- Investing in high-demand skills boosts employee satisfaction and loyalty.

Target Audience

1. Professionals seeking to enhance their visualization and storytelling capabilities.
2. Individuals looking to build more complex and efficient dashboards.
3. Those responsible for creating impactful and interactive reports for various stakeholders.
4. Professionals who need to visualize market trends, campaign performance, and customer insights.
5. Users who require advanced dashboards for financial forecasting, performance tracking, and risk assessment.

6. Experts involved in deploying, maintaining, and optimizing BI solutions.
7. Decision-makers who want to leverage data visualization for better oversight and strategic planning.
8. Individuals who need to present complex information clearly and effectively.

Course Outline

Module 1: Foundations of Advanced Data Visualization

- Understanding the psychology of visual perception and effective design principles.
- Deep dive into data preparation and quality for visualization in Tableau and Power BI.
- Choosing the right chart type for different data types and analytical goals.
- Introduction to advanced calculations and parameters in both platforms.
- **Case Study:** Redesigning a cluttered executive summary dashboard for a retail chain to improve clarity and immediate insight.

Module 2: Mastering Tableau for Complex Visualizations

- Advanced chart techniques: Dual-axis charts, Pareto charts, waterfall charts, and motion charts.
- Creating dynamic sets, groups, and hierarchies for granular analysis.
- Utilizing LOD (Level of Detail) expressions for complex aggregations.
- Building interactive filters, actions, and parameters for user-driven exploration.
- **Case Study:** Developing a regional sales performance dashboard with drill-down capabilities for a global electronics manufacturer.

Module 3: Advanced Power BI for Interactive Dashboards

- Deep dive into DAX (Data Analysis Expressions) for sophisticated calculations and measures.
- Creating custom visuals and integrating R/Python scripts for enhanced analytics.
- Designing compelling interactive reports with slicers, bookmarks, and drill-through.
- Optimizing data models for performance with Power Query and M language.
- **Case Study:** Constructing a comprehensive HR analytics dashboard in Power BI, integrating employee demographics, performance, and attrition data.

Module 4: Dashboard Design and User Experience (UX)

- Principles of effective dashboard layout, visual hierarchy, and color theory.
- Strategies for designing intuitive and user-friendly navigation.
- Ensuring dashboard accessibility and responsiveness across devices.
- Techniques for creating a consistent visual language and branding.
- **Case Study:** Transforming a static, text-heavy finance report into an interactive, visually engaging financial overview dashboard, improving stakeholder comprehension.

Module 5: Data Storytelling and Narrative Techniques

- Structuring a data story: identifying the core message, context, and call to action.
- Using annotations, highlights, and guided analytics to direct user attention.
- Developing compelling narratives around data insights for diverse audiences.
- Integrating text and visuals to create persuasive presentations.
- **Case Study:** Crafting a data story from customer feedback data to highlight key pain points and recommend product improvements for a software company.

Module 6: Performance Optimization for Large Datasets

- Strategies for optimizing data connections, extracts, and live queries.
- Techniques for reducing dashboard load times and improving responsiveness.
- Understanding and leveraging data aggregation and summarization.
- Best practices for dashboard publishing, sharing, and security.
- **Case Study:** Optimizing a large-scale supply chain dashboard with millions of records, reducing load time from minutes to seconds for a logistics firm.

Module 7: Integrating Advanced Analytics & AI

- Incorporating statistical functions and predictive modeling into visualizations.
- Exploring AI-powered features in Tableau (Ask Data, Explain Data) and Power BI (Q&A, Key Influencers, Decomposition Tree).
- Connecting to external analytical tools and platforms.
- Understanding the ethical considerations and potential biases in data visualization.
- **Case Study:** Building a churn prediction dashboard for a telecommunications company, utilizing forecasting models and highlighting key influencing factors.

Module 8: Real-World Applications and Future Trends

- Applying learned skills to industry-specific case studies (e.g., healthcare, finance, marketing).
- Exploring emerging trends: real-time data visualization, immersive analytics (VR/AR), and automated insights.
- Best practices for continuous improvement and maintaining dashboards.
- Q&A, project showcase, and peer feedback session.
- **Case Study:** Developing a real-time operational dashboard for a manufacturing plant to monitor production lines and identify anomalies instantly.

Training Methodology

This training course will employ a highly interactive and practical methodology, blending theoretical concepts with extensive hands-on exercises. The approach includes:

- **Instructor-Led Sessions**: Expert trainers providing clear explanations and demonstrations.
- **Hands-on Labs**: Practical exercises using Tableau and Power BI to reinforce learning.
- **Real-World Case Studies**: Application of concepts to relevant industry scenarios.
- **Interactive Discussions**: Encouraging participant engagement and knowledge sharing.
- **Live Demonstrations**: Showing best practices and advanced techniques in action.
- **Troubleshooting Sessions**: Addressing common challenges and problem-solving strategies.
- **Group Projects**: Collaborative exercises to build comprehensive dashboards.
- **Q&A and Feedback**: Opportunities for individualized guidance and clarification.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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