Tech-Trail Program

ABBFEM TRAINING

Data Analysis
Track

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COURSE OVERVIEW

The Data Analytics Training Program is a 3-month intensive course designed to provide participants with practical and theoretical expertise in data analysis. This program will take participants through the entire data analytics lifecycle, from data collection and cleaning to advanced analysis and visualization. The course is tailored to help individuals transition into data analytics roles or enhance their current skills for career advancement.

Participants will gain hands-on experience using industry-standard tools and techniques, including Microsoft Excel, SQL, Python, and Power BI, and will work on real-world projects to build a professional portfolio.

Course Objectives

01 Provide participants with a deep understanding of the data analytics process, from data collection and cleaning to advanced analysis and reporting.

02 Equip learners with the technical skills required to work with industry-standard tools such as Excel, SQL, Python, and Power BI.

03 Build expertise in creating compelling data visualizations and interactive dashboards that effectively communicate data-driven stories.

04 Develop learners with well-rounded skill set that balances technical proficiency, problem-solving, and strategic thinking to meet the demands of the job market.

05 Empower participants with the confidence to pursue careers in data analytics or integrate analytics into their existing roles to drive organizational success.
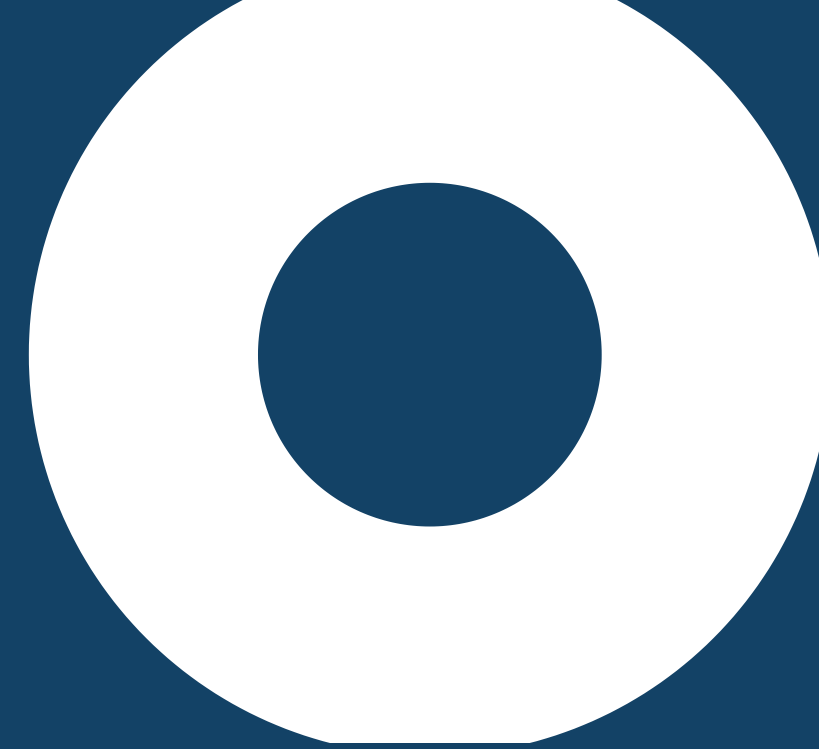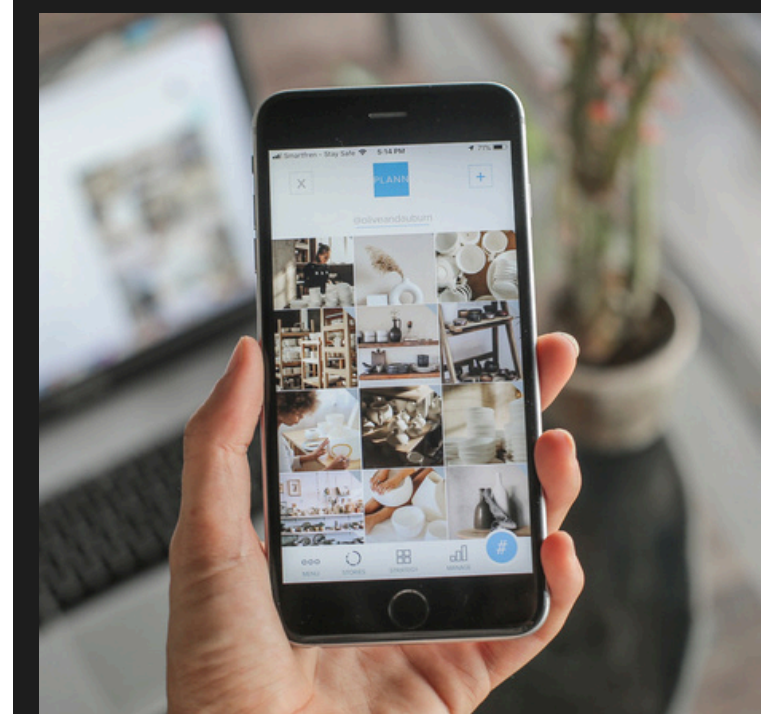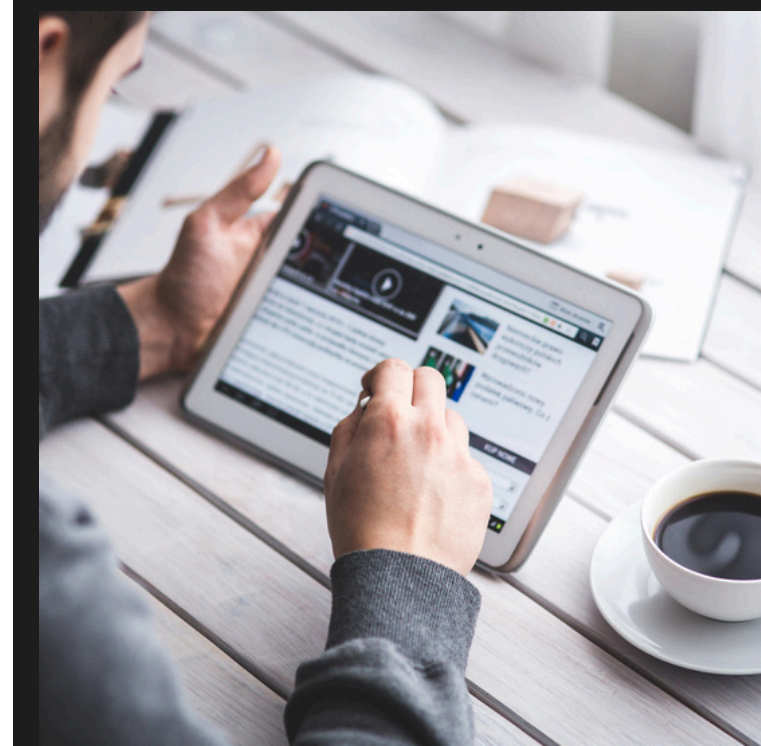
Course
Prerequisites

01 Basic computer literacy and familiarity with operating systems like windows

02 Access to a laptop/PC with a minimum of 8GB RAM (16GB recommended).

03 Stable internet connection.

04 A strong interest in data analysis and a passion for learning

KEY FEATURES

✓ Globally Recognized Certificate

✓ Extensive practical exercises with industry-standard tools.

✓ Lifetime Access to recorded sessions & study materials

✓ Direct access to industry professionals for mentorship.

✓ Weekday and weekend class options.

Data Analysis Course Modules

Week 1

Introduction to Data Analytics

- Overview of Data Analytics: Key concepts and applications.
- Understanding the Data Analytics Lifecycle.
- Tools and Technologies: Introduction to Excel, Python, SQL, and Power BI.
- Setting Up Your Environment: Installing and configuring required software.

Week 2

Fundamentals of Data Analysis with Excel

- Introduction to Excel for Data Analytics
- Data Cleaning and Transformation: Handling missing values, duplicates, and data formatting
- Using Pivot Tables and Charts for Data Summarization
- Basic Statistical Analysis with Excel: Mean, median, standard deviation
- Case Study: Analyzing sales data using Excel

Week 3

Database Management and SQL for Data Analysis

- Introduction to Databases and SQL
- Writing Basic Queries: SELECT, FROM, WHERE, ORDER BY, and LIMIT
- Aggregating Data: COUNT, SUM, AVG, MAX, and MIN
- Joining Tables: INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN
- Advanced SQL: Subqueries, Common Table Expressions (CTEs), and Window Functions
- Practical Exercise: Building a database and querying for insights

Week 4

Introduction to Python for Data Analytics

- Setting up Python: IDEs, Anaconda, and Jupyter Notebooks
- Python Basics: Variables, data types, and control flow
- Libraries for Data Analysis: Pandas, NumPy, and Matplotlib
- Data Manipulation with Pandas: Reading, cleaning, and transforming datasets
- Practical Exercise: Cleaning and analyzing a dataset

Week 5

Data Visualization with Python

- Introduction to Data Visualization Principles
- Plotting with Matplotlib and Seaborn
- Creating Advanced Visualizations: Heatmaps, scatter plots, and pair plots
- Interactive Visualizations with Plotly
- Case Study: Analyzing and visualizing survey data

Week 6

Advanced Data Analysis Techniques

- Introduction to Statistical Analysis: Hypothesis testing, t-tests, and chi-square tests
- Exploring Correlation and Regression Analysis
- Time Series Analysis: Decomposition, forecasting, and ARIMA models
- Hands-On Project: Analyzing stock market data

Week 7

Data Storytelling and Presentation

- Basics of Data Storytelling: Crafting compelling narratives
- Building Dashboards in Power BI: Data import, visualization, and interactivity
- Integrating Data Visualizations into Presentations
- Best Practices for Presenting Data Insights
- Case Study: Presenting insights from a business dataset

Week 8

Introduction to Machine Learning for Data Analysts

- Understanding Machine Learning: Concepts and applications
- Supervised vs. Unsupervised Learning
- Implementing Simple Algorithms: Linear regression, k-means clustering
- Hands-On Project: Building a predictive model for sales forecasting

Week 9

Big Data and Cloud Computing in Data Analytics

- Introduction to Big Data Concepts: Volume, velocity, and variety
- Overview of Cloud Platforms: AWS, Azure, and Google Cloud for data analytics
- Using Google Big Query for Big Data Analysis
- Case Study: Analyzing large datasets using cloud tools

Week 10

Business Applications of Data Analytics

- Marketing Analytics: Customer segmentation, churn prediction
- Financial Analytics: Fraud detection, financial forecasting
- Operational Analytics: Process optimization and resource management
- Case Study: Solving a real-world business problem using analytics

Week 11

Capstone Project Development

- Introduction to the Capstone Project: Choosing a real-world problem to solve
- Data Collection and Preparation: Gathering relevant data for the project
- Applying Analytical Techniques: Using tools and methods learned during the course
- Developing a Dashboard and Final Presentation

Week 12

Capstone Project Presentation & Certification

- Presenting Capstone Projects to Peers and Instructors
- Peer Review and Feedback Sessions
- Graduation Ceremony
- Career Pathways in Data Analytics: Tips for building a portfolio, resume applying for jobs and interview Preparation.

GRADUATE STARTER KITS

- GRADUATES OF THE DATA ANALYTICS PROGRAM WILL BE EQUIPPED WITH THE FOLLOWING RESOURCES TO CONFIDENTLY LAUNCH THEIR CAREERS;

- Personalized Cv And Linkedin Optimization For Data Analysts

- Professional Portfolio

- Abbfem Alumni Membership

- Exclusive Access To Internship & Freelancing Opportunities

- A Certificate Of Competence In Data Analytics

TRAINING DELIVERY

Duration

3-Months (2 classes weekly) each class is 4hours

Learning Mode

- Virtual Classes Conducted on Zoom
- Physical Trainings conducted at any of our Training hubs located in the UK and in Nigeria

Class Schedule

- Weekday Option - 10am-2pm daily
- Weekend Option: Saturday - 10am- 3pm daily Sunday- 3pm -6pm daily

Sign up now to secure your spot and take the first step toward a rewarding tech career

Contact details

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Abbfem Training Hubs

Nigeria: Eleganza House, 15b Joseph Harden Street, Marina, Lagos Island, Lagos state. Nigeria

United Kingdom: 350A Icentre, Howard Way, Newport Pagnell, MK16 9PY, United Kingdom