

Data Analysis Fundamentals: Mastering Core Concepts & Tools

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Dubai (UAE)

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~~R20222384~~ ~~197823~~ ~~Location: Dubai (UAE)~~ ~~Fees: 4900 GBP~~

Why This Course

Data analysis has become an essential skill for professionals who want to make better decisions, understand business performance, and turn raw information into useful insights. Organizations today rely on data not only to monitor results, but also to identify opportunities, solve problems, and support strategic planning.

This intensive 5-day Data Analysis Fundamentals Training program provides participants with a practical introduction to the full data analysis process. The course covers data collection, cleaning, exploration, analysis, visualization, and reporting. Through hands-on exercises, Excel and SQL practice, dashboard-building activities, and real-world business examples, participants will develop the confidence to analyze data and communicate insights clearly to decision-makers.

What You'll Learn and Practice

By joining this program, you will:

- Understand the key stages of the data analysis process.
- Identify different types of data and appropriate collection methods.
- Apply essential statistical concepts, including descriptive statistics and probability.
- Clean, prepare, and organize raw data for analysis.
- Use Excel functions and tools to analyze business data.
- Write SQL queries to extract, join, summarize, and analyze data.
- Apply exploratory data analysis techniques to identify patterns and relationships.
- Create clear charts, graphs, visual reports, and interactive dashboards.
- Interpret findings and communicate data-driven recommendations to stakeholders.

The Program Flow

Day 1: Introduction to Data Analysis

- Understand the full data analysis process and its role in decision-making.
- Explore different types of data and common data collection methods.
- Learn the basics of descriptive statistics and probability.
- Identify how data is used to solve business problems.
- Practice using Excel as a starting tool for data analysis.

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A graphic of a chessboard with several chess pieces (a king, a queen, a rook, and a knight) positioned on it. The board is white and black, and the pieces are gold and silver.

Day 2: Data Preparation and Exploration

- Apply data cleaning and preprocessing techniques.
- Prepare raw data for accurate and reliable analysis.
- Use exploratory data analysis to identify patterns, trends, and outliers.
- Apply correlation analysis and basic hypothesis testing.
- Use advanced Excel functions to organize, analyze, and summarize data.

Day 3: SQL for Data Analysis

- Understand relational databases and how data is structured.
- Write basic SQL queries to retrieve and filter data.
- Apply advanced SQL queries for deeper analysis.
- Join tables and use subqueries to combine information from multiple sources.
- Aggregate and summarize data using SQL functions.

Day 4: Data Visualization Techniques

- Apply the principles of effective data visualization.
- Select the right chart or graph for different types of data.
- Create charts and graphs using Excel.
- Understand the basics of Tableau for data visualization.
- Build interactive dashboards that support insight-driven decision-making.

Day 5: Applied Data Analysis and Reporting

- Understand the basics of regression analysis and its practical uses.
- Apply introductory time series analysis and forecasting techniques.
- Create clear data-driven reports and business presentations.
- Translate analysis results into meaningful recommendations.
- Apply best practices for communicating insights to stakeholders.

Individual Impact

- Build a strong foundation in data analysis concepts and techniques.
- Gain practical skills in Excel and SQL for data manipulation and analysis.
- Improve confidence in working with raw and structured data.
- Strengthen the ability to create visual reports and dashboards.
- Develop clearer communication skills for presenting data-based insights.

Work Impact

- Support better business decisions through accurate data interpretation.
- Improve reporting quality and analytical efficiency.
- Help teams identify trends, patterns, risks, and opportunities.
- Strengthen the use of Excel, SQL, and dashboards in daily business analysis.
- Promote a more data-informed approach to planning and performance improvement.

Training Methodology

This program combines practical instruction with applied exercises through:

- Hands-on Excel and SQL practice sessions.
- Real-world business data analysis examples.
- Data cleaning and exploratory analysis exercises.
- Visualization and dashboard-building workshops.
- Group discussions on insight interpretation and reporting.
- Practical reporting and presentation activities.

Beyond the Course

Upon completion, participants will be able to:

- Clean, prepare, and analyze raw data using Excel and SQL.
- Apply basic statistical and analytical techniques to business problems.
- Create meaningful charts, visualizations, and interactive dashboards.
- Interpret data findings and convert them into practical recommendations.
- Present data-driven insights clearly to managers, teams, and decision-makers.

A graphic of a chessboard with several chess pieces (a king, a queen, and a pawn) on it, set against a background of concentric circles.

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