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COURSE CODE: E04-CSE 355

COURSE NAME: DATA SCIENCE PROFESSIONAL CERTIFICATION

Assignment 2

Role Exploration: Data Analyst

A **Data Analyst** plays a vital role in helping organizations make data-driven decisions. While often confused with Data Scientists, Data Analysts focus more on examining historical data, generating reports, and providing actionable insights for business stakeholders. They serve as the bridge between raw data and strategic business decisions.

Responsibilities

- **Data Cleaning & Preparation:** Collect, organize, and preprocess data from databases, spreadsheets, or APIs to ensure accuracy and consistency.

- **Exploratory Data Analysis (EDA):** Use statistical methods to identify trends, correlations, and anomalies in datasets.

- **Reporting & Visualization:** Create dashboards and reports to communicate findings clearly to management. Tools like Power BI, Tableau, and Excel are widely used.

- **Business Insights:** Translate raw numbers into practical recommendations for marketing, finance, sales, or operations teams.

- **Collaboration:** Work closely with managers and other analysts to align data insights with business goals.

Skills Required

- **Technical Skills:** Proficiency in SQL for database querying, Excel for quick analysis, and Python or R for advanced analytics.

- **Statistical Knowledge:** Understanding of descriptive statistics, hypothesis testing, and forecasting methods.

- **Visualization:** Expertise in Tableau, Power BI, or ggplot2 to communicate findings effectively.

- **Soft Skills:** Critical thinking, communication, and the ability to explain technical insights in simple terms.

- **Domain Knowledge:** Awareness of the business context (e.g., finance, healthcare, marketing).
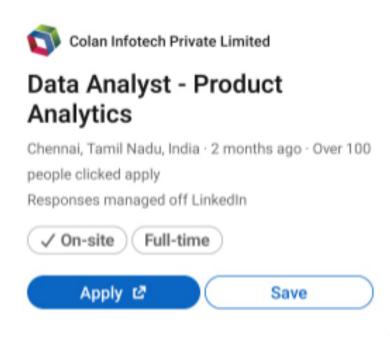
Tools Commonly Used

- **Databases:** SQL Server, MySQL, Oracle.

- **Analysis Tools:** Excel, Python (pandas, matplotlib), R.

- **Visualization Tools:** Tableau, Power BI, QlikView.
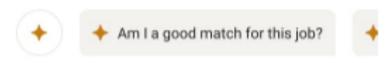
Example LinkedIn Job Post – Key Requirements

Check out this job at Colan Infotech Private Limited:
https://www.linkedin.com/jobs/view/4248747982

Colan Infotech Private Limited

Data Analyst - Product Analytics

Chennai, Tamil Nadu, India · 2 months ago · Over 100 people clicked apply

Responses managed off LinkedIn

✓ On-site   Full-time

Apply ⤢   Save

Use AI to assess how you fit

Get AI-powered advice on this job and more exclusive features with Premium. Try Premium for ₹0

✦   ✦ Am I a good match for this job?   ✦

About the job

Skills:
Python, Data Analyst, Product analytics, Azure Data Services, Azure Databricks, Power BI, SQL,

Role: Data Analyst - Product Analytics

Job Description

4+ years of experience in data analytics with at least 2 years in product analytics.

- Proficiency in SQL and Python for data analysis; strong understanding of experimentation methods and causal inference.
- Experience working with Azure Data Services and Databricks (or equivalent cloud-based platforms).
- Expertise in building compelling, user-friendly dashboards in Power BI.
- Strong communication skills and ability to influence cross-functional stakeholders.
- Passionate about solving customer problems and improving products through data.

Conclusion

A Data Analyst is essential for organizations aiming to understand past performance and improve future strategies. While not as focused on predictive modeling as a Data Scientist, the Data Analyst provides the foundation of data-driven decision-making by uncovering insights that drive efficiency and growth.