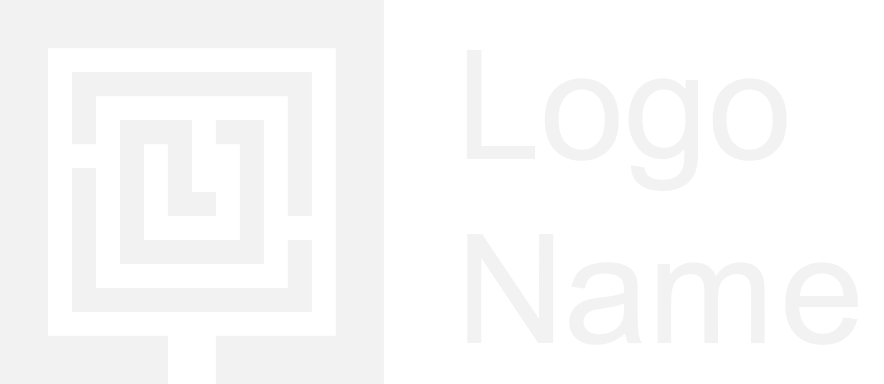


|  |
| --- |
| Making Smart Decisions with Data: A Simple Guide to Analytics |
|  |
| Group Members:  Muntasir Rahman (A23MJ0013)  Affiq Firdaus (A23MJ0008)  Md Muinuddin (A23MJ0008) |



# Overview

|  |
| --- |
| Analytics This report explains how we use analytics, a way of studying data, to make smart decisions in different areas like business and healthcare. We collect information, analyze it, and turn it into useful insights. There are three types of insights: big-picture plans, short-term strategies, and day-to-day operations. |
| *“Credence Systems Corporation, was a prominent manufacturer of test equipment catering to the global semiconductor industry. ”* |
| *A little bit of History…*  **Credence Systems Corporation, originally founded as Semiconductor Test Solutions by David Mees in 1978, was a prominent manufacturer of test equipment catering to the global semiconductor industry. With a significant emphasis on addressing the specific challenges of the rapidly expanding consumer-driven semiconductor markets, the company underwent a name change to Credence after acquiring Axiom and ASIX in 1990. Following its initial public offering on October 28, 1993, Credence traded on the Nasdaq stock market under the symbol CMOS until its merger with LTX in 2008. Headquartered in Milpitas, California, the company had a global presence, operating in twenty countries.** |
| *Types of Insights:*  We get three kinds of insights from analytics. The first helps with long-term plans, the second guides short-term decisions, and the third deals with everyday tasks.  Jobs in Analytics:   1. **Business Analytics:** Using data to make smart business decisions. 2. **Data Architect:** Planning how a company's information should be stored and used. 3. **Data Scientist:** Finding valuable information from large sets of data. 4. **Data Engineer:** Building and maintaining systems to handle data efficiently. 5. **BI Developer:** Creating tools to help organizations make good decisions.   *Tools and Tech We Use:*   1. **Database/OLAP:** Places to store and manage data, like PostgreSQL. 2. **Visualization Tools:** Tools to turn data into easy-to-read charts, like Tableau. 3. **ETL/ELT:** Processes to move and transform data, like Apache Airflow. 4. **Programming Languages:** Codes we use to work with data, like SQL and Python.   *Conclusion & Self-Reflection:*  The report emphasizes the role of analytics in aiding intelligent decision-making across various domains such as business and healthcare. It underscores the process of collecting, analyzing, and transforming data into valuable insights for strategic planning, short-term decisions, and everyday tasks. The analogy of analytics as a puzzle-solving approach simplifies the understanding of data transformation into visual representations. The report also touches on key aspects like analytics-related jobs, essential tools such as databases and visualization software, and the significance of supportive workplaces fostering communication and continuous learning.  In summary, analytics is portrayed as crucial for informed decision-making, with the report breaking down complex concepts into easily comprehensible elements. Skilled professionals in roles like business analytics and data science play a vital role, utilizing tools to convert intricate data into accessible insights, while collaborative and learning-oriented workplaces are highlighted as facilitators of success in the realm of data-driven choices |