

Insight Hunters documentation and Implementation

ALX3_DAT1_S2 Data Analyst Specialist



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Introduction:

We are the team Insight Hunters, a group of passionate data enthusiasts driven by curiosity and a desire to uncover hidden insights. We embarked on the E-Commerce Data Analysis project as part of the DEPI initiative, aiming to explore customer behavior, sales performance, and market trends in the online shopping sector.

Our journey began with a deep dive into the e-commerce world. We wanted to understand not just the numbers, but the story behind them is the patterns, the trends, and the untapped opportunities. With determination and careful planning, we set out to transform raw data into actionable insights that could drive real business decisions.

Chapter 1: Data Analysis & Research:

The first step in our adventure was **extensive industry research**. We explored the latest reports, market trends, and case studies to build a solid foundation for our analysis. Our goal was to know the landscape well before touching the data, because understanding the context is key to meaningful analysis.

Once we had a clear understanding, we collected the **raw data**, which was provided in multiple **CSV files**. The files contained detailed information about transactions, customers, products, and more. Our next mission was to turn this scattered data into something organized and usable.

We imported the CSV files into a **SQL database**, carefully designing tables and relationships to create a structured **Data Warehouse**. This step was crucial because it allowed us to store the data efficiently, maintain consistency, and prepare it for advanced analysis.

With the data structured and ready, we connected it to **Power BI** to create interactive dashboards. This was where the story of the data came to life. Trends became visible, patterns emerged, and we could see the behaviors and preferences of customers in real time. It was like turning raw numbers into a living, breathing story.

Meanwhile, we conducted a **Stakeholder Analysis**. We identified **eight key stakeholders**, each with unique interests and priorities. By understanding their perspectives, we ensured that our insights were not just accurate, but also meaningful and actionable for everyone involved.

To explore the full set of resources we used including **industry research, database files, and the ERD (Entity Relationship Diagram)** you can visit the following link:

<https://drive.google.com/drive/folders/1wm54Ut1Nx-rFdoujVsyhuivgnSiOW9Wv?usp=sharing>

Chapter 2: Implementation:

After preparing and analyzing the data, we moved to the **implementation phase**. This was where all our planning, research, and analysis came together in a tangible form.

The **entire project has been uploaded to GitHub**, making it easy to review and run:

- **Source Code** for all modules of the project, meticulously documented for clarity.
- **Step-by-step instructions** to run the project locally, ensuring anyone can explore our work seamlessly.

You can access the complete project from this link:

<https://github.com/nhahub/NHA-122>

Through the implementation, we ensured that the dashboards and analytical tools we created were not only functional but also user-friendly, so stakeholders could interact with the data effortlessly.

Conclusion:

This project has been an exciting journey from raw data to actionable insights. We transformed scattered CSV files into a structured Data Warehouse, explored trends through **Power BI dashboards**, and managed stakeholder needs with precision.

The **E-Commerce Data Analysis** project demonstrates how data, when handled carefully, can tell powerful stories and drive informed business decisions. Beyond the technical work, it highlights the importance of understanding the context, the stakeholders, and the story behind the numbers.

Our adventure as **Insight Hunters** has not only sharpened our skills in SQL, Power BI, and data visualization, but also strengthened our ability to think critically, analyze deeply, and communicate insights effectively.