Internship Report

Submitted by: Arjit Raghuvanshi
Internship Title: Google Looker Studio Data Analytics Internship
Organization: Nullclass
Duration: 1 Month
Submission Date: 15/07/2025

---

1. Introduction

This report summarizes the work completed during my one-month internship with **Nullclass**, where I focused on building interactive dashboards using **Google Looker Studio**. The internship provided a hands-on opportunity to apply data analytics concepts in a real-world context, with a focus on sales insights and business intelligence reporting.

---

2. Background

Before starting the internship, I completed the training program offered by Nullclass on Google Looker Studio, which covered key concepts including data connection, calculated fields, time-series visualizations, and dashboard publishing.

Additionally, I utilized **SQL Workbench** and **Jupyter Notebook** during the training phase for initial dataset exploration and validation, helping me understand the data structure before creating the final dashboards.

The internship phase built directly on this foundation, requiring the integration of two business-oriented analytics tasks into the existing training project. The deliverables were hosted and submitted via a public **GitHub repository** and presented through **Looker Studio**.

---

3. Learning Objectives

- Apply business intelligence techniques in real projects.
- Gain practical experience building reports in Google Looker Studio.

- Develop independent task management skills.
- Strengthen data modeling, visualization, and reporting abilities.
- Deliver professional-quality projects with documentation and version control.

---

4. Tasks and Activities

Task 1: Average Order Value (AOV) Over Time

I developed a monthly trend chart to analyze the Average Order Value (AOV) for the year 2022. This involved creating a calculated metric using the formula:

AOV = SUM(after_discount) / COUNT_DISTINCT(id)

The data was filtered using a date range control and grouped by month. This visualization provides clear insights into purchasing trends and overall sales efficiency across the year.

Task 2: Sales Performance by Payment Method

This task focused on evaluating financial performance based on the payment method. A pivot table with heatmap styling was created to visualize:

- Total Sales: SUM(before_discount)
- Quantity Sold: SUM(qty_ordered)
- Net Profit: SUM(after_discount - cogs)

I implemented both month and quarter filters, the latter built using a custom-calculated field. These filters allowed dynamic user exploration of performance trends over time.

---

5. Tools and Technologies Used

- **Google Looker Studio:** Dashboard development, visualization, and filters.
- **SQL Workbench:** Querying and inspecting structured datasets during training.
- **Jupyter Notebook:** Exploratory data analysis and preprocessing.
- **Microsoft Word :** Report documentation.

- **GitHub:** Project hosting, file uploads, and version control.

---

6. Challenges and Problem Solving

1. **Managing Time-Constrained Requirements:**
   Although the internship duration was a month, I chose to complete the tasks in a focused period. This required interpreting the project brief carefully and making design decisions independently where instructions were open-ended.
2. **Adapting Static Data for Dynamic Visualization:**
   Since the dataset was static, building dashboards with dynamic filter capabilities posed challenges. I ensured that calculated fields and groupings, such as quarters, functioned correctly alongside filters without breaking visuals or logic.
3. **Balancing Simplicity with Analytical Value:**
   A major design challenge was to present rich insights without cluttering the dashboard. Through layout experimentation and the use of heatmap visuals, I achieved a format that was both visually clean and analytically deep.

---

7. Outcomes and Impact

By the end of the internship, I delivered a fully interactive, multi-page dashboard integrated into my original training project. The project showcased calculated metrics, filters, grouped dimensions, and dynamic visualizations. Additionally, I documented the work through a professional GitHub repository containing the dashboard PDF, screenshots, and a detailed README file.

Beyond task completion, this internship refined my analytical thinking, enhanced my independence in project execution, and taught me how to present data in a way that aids decision-making. The project is publicly hosted and ready for evaluation.

---

8. Conclusion

The internship experience at Nullclass significantly deepened my knowledge of business intelligence and dashboard design. It provided a strong blend of technical and

communication skills, requiring me to think critically, design effective visual interfaces, and document my work thoroughly.

I am grateful for this opportunity and look forward to applying these skills in future data analytics and business intelligence projects.

---

9. Key Deliverables

- **Live Dashboard:**
  View on Google Looker Studio
- **GitHub Repository:**
  View on GitHub
- **Dashboard PDF Export:**
  Available as Google Looker Dashboard.pdf in the GitHub repository.
- **Screenshots:**
  Available directly in the GitHub repository as individual PNG files.
