Internship Report

Intern Name: Ritika Kumari
Internship Duration: 13-03-2025 to 13-04-2025 (1 Month)
Company/Organization: NULLCLASS
Role: Data Analyst Intern

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1. Introduction

The project involved working on data visualization and analytical tasks using **Tableau and Python**. The goal was to extract meaningful insights from datasets and present them in a visually appealing and interactive manner.

2. Background

The internship involved working on data related to job roles, company sizes, and demographics. I focused on creating interactive dashboards in Tableau and utilizing Python for data preprocessing to enhance visualization accuracy. These tasks helped me gain practical experience.

3. Learning Objectives

- Develop proficiency in Tableau for creating dashboards and visual reports.
- Learn time zone conversions (IST) in Tableau for accurate data representation.
- Used Python for data cleaning and transformation before visualization.
- Understand best practices for deploying Tableau dashboards on Netlify/Vercel.

4. Activities and Tasks

- **Tableau Visualizations:** Designed dashboards to showcase job trends and demographic insights.
- **Time Zone Adjustments:** Created calculated fields in Tableau to standardize timestamps to IST.
- **Python for Data Preprocessing:** Used Pandas and NumPy to clean, format, and analyze raw datasets.
- **Deployment Strategies:** Explored Netlify for publishing Tableau-based reports.
- **Automating Data Updates:** Integrated Python scripts for scheduled data updates.

5. Skills and Competencies Developed

- **Technical Skills:** Tableau, Python (Pandas, NumPy), Data Cleaning, Data Visualization.
- **Analytical Thinking:** Understanding dataset patterns and translating them into business insights.
- **Problem-Solving:** Addressing data inconsistencies and deployment challenges.
- **Collaboration:** Working in a structured environment with feedback and iteration cycles.

6. Feedback and Evidence

- **Dashboard Performance:** Positive feedback on visualization clarity and user interaction.
- **IST Conversion in Tableau:** Successfully implemented time zone adjustments for accurate timestamps.
- **Python Data Cleaning:** Efficiently prepared datasets for seamless integration into Tableau.

7. Challenges and Solutions

- **Challenge:** Difficulty in directly extracting IST in Tableau Public.
  - **Solution:** Used `DATEADD` function in calculated fields to convert UTC timestamps to IST.
- **Challenge:** Deploying Tableau visualizations efficiently.
  - **Solution:** Explored hosting options like Netlify/Vercel and structured reports for easy embedding.
- **Challenge:** Handling missing or inconsistent data in datasets.
  - **Solution:** Used Python (Pandas) for preprocessing and ensuring clean, structured inputs for Tableau.

8. Outcomes and Impact

- Improved data visualization and analytical skills using Tableau.
- Successfully converted and standardized timestamps for IST reporting.
- Automated data cleaning processes with Python, reducing manual effort.
- Gained exposure to deploying reports and dashboards online.

9. Conclusion

I have learned how to handle real-world datasets, create impactful dashboards, and optimize data presentation for better decision-making. The experience has strengthened my ability to work with business intelligence tools and solve data-related challenges efficiently