NULLCLASS

DATA ANALYTICS INTERNSHIP REPORT

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This report documents my internship experience as a Data Analyst at NullClass, focusing on data analysis and visualization tasks. The Internship spanned from 18th June 2024 to 3rd July 2024. The primary objective was to enhance my skills in data manipulation, analysis and visualization using various tools and technologies 4

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1. INTRODUCTION

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2. BACKGROUND

COMPANY OVERVIEW:

Our mission is centered on inclusivity and empowerment. We firmly believe in offering opportunities to individuals who may be overlooked by tradition hiring practices due to a lack of experience or specific skillsets. Our focus lies in identifying potential and nurturing talent, rather than solely prioritizing pre-existing qualifications.

We are dedicated to providing a supportive environment where individuals can flourish and develop the skills and necessary to thrive in their respective roles. Through mentorship, training programs, and hands-on experience, we aim to empower every member of our team to reach their full potential.

DEPARTMENT AND TEAM:

I was part of the Data Analysis Team, working closely with data Scientists, analysts and software engineers. The team's responsibilities included data extraction, cleaning, visualization and creating actionable insights for various projects.

3. LEARNING OBJECTIVES

GOALS

- Develop proficiency in data analysis and visualization tools.
- Gain Practical experience in data manipulation and cleaning.
- Enhance skills in creating and interpreting charts and graphs.
- Understand real-world applications of data science in a corporate environment.

EXPECTATIONS:

- Learn advanced techniques in data visualization.
- Apply theoretical knowledge to solve practical problems.
- Improve problem-solving and critical thinking skills.

4. ACTIVITIES AND TASKS:

TASK-1: CHART BETWEEN COMPANY SIZE AND COMPANY NAME

Description:

Create a chart between company size and company name under specific conditions.

- **Conditions:** Company size < 50000, job title = Mechanical Engineer, experience ≤ 5 years, country = Asian countries, salary > $50k, work type = Part-time and Full-time, preference = Male, application source = Idealist, time constraint = 3 PM to 6 PM.
- **Outcome:** A filtered and time-specific chart displaying relevant data.

TASK-2: CHART WITH QUALIFICATION AND WORK TYPE FILTERS

Description:

Draw a chart with specific qualifications and work types.

- **Conditions:** Qualification = B.Tech, M.Tech, PhD, work type = Full-time, country = African continent, job title starting with 'D', preference = Male, company size > 80000, contact person name starting with 'A', job portal = Indeed.
- **Outcome:** A detailed chart with interactive latitude and longitude that opens a map upon clicking.

TASK-3: CHART WITH COUNTRY-SPECIFIC DETAILS

Description:

Create a chart focusing on India and Germany with specific qualifications and work types.

- **Conditions:** Country = India and Germany, qualification = B.Tech, work type = Full-time, experience > 2 years, job title = Data Science, salary > $100k, job portal = Indeed, preference = Female, job posting date before 08/01/2023, color-coded based on country, and time-based color swap between 12 PM to 6 PM.
- **Outcome:** A color-coded chart that swaps colors based on the time of day.

5. SKILLS AND COMPETENCIES:

TECHNICAL SKILLS

- **Python:** Advanced proficiency in data manipulation and analysis.
- **Pandas:** Expertise in data handling and preprocessing.
- **Matplotlib & Seaborn:** Advanced skills in data visualization.
- **Selenium:** Proficiency in web scraping and data extraction.
- **Tableau:** Competence in creating interactive dashboards.

SOFT SKILLS

- **Problem-Solving:** Developed through tackling complex data challenges.
- **Time Management:** Enhanced by adhering to project deadlines.
- **Communication:** Improved through regular updates and presentations to the team.

6. FEEDBACK AND EVIDENCE

FEEDBACK:

- During my internship at NullClass, I worked on several impactful projects that greatly enhanced my skills in data science and visualization.
- The projects were highly engaging and provided a practical understanding of data analysis and visualization. The Tableau dashboard project, in particular, was a highlight, as it involved setting up real-time charts and applying dynamic filters. This experience was instrumental in advancing my technical skills and problem-solving abilities.

EVIDENCE:

- **Project Deliverables**: Successfully completed a comprehensive Tableau dashboard featuring real-time charts and dynamic filters.
- **Code Repositories**: Maintained clean, well-documented code for data analysis and visualization tasks, available on GitHub.

7. CHALLENGES AND SOLUTIONS

CHALLENGES:

- **Data Quality**: Inconsistent and incomplete data posed significant challenges.
- **Time Constraints**: Limited time to complete complex tasks and analyses.
- **Technical Issues**: Encountered bugs and errors in code implementation.
- **Real-Time Charts in Tableau Dashboard**: One of the biggest challenges I faced was setting up real-time charts in the Tableau dashboard. Ensuring chart visibility at particular times was especially challenging.

SOLUTIONS:

- **Data Cleaning**: Implemented thorough data cleaning techniques to ensure data quality.
- **Efficient Workflow**: Prioritized tasks and managed time effectively to meet deadlines.
- **Debugging**: Utilized debugging tools and peer reviews to resolve technical issues.
- **Calculated Fields in Tableau**: To address the challenge of real-time chart visibility, I created calculated fields in Tableau. This allowed me to control the visibility of charts based on specific time criteria, ensuring accurate and timely data presentation.

8. OUTCOMES AND IMPACT

ACHIEVEMENTS:

- Successfully created detailed and accurate charts meeting specific criteria.
- Improved data visualization skills, leading to more insightful analyses.
- Contributed to team projects with significant positive feedback from supervisors.

IMPACT:

- **Team Efficiency**: Enhanced through the automated and accurate charts I created.
- **Project Success**: My contributions led to better-informed decision-making processes.
- **Personal Growth**: Significant improvement in technical and soft skills, preparing me for future roles in data science.

LINKS:

- **GitHub Link:** https://github.com/Ramya19rk/NullClass-Internship-Project
- **Netlify Training Project:** https://jobportalvisualisation.netlify.app/
- **Netlify Internship Project:** https://internjobportals.netlify.app/

9. CONCLUSION

SUMMERY:

My internship at NullClass was an enriching experience that provided me with practical skills in data analysis and visualization. The tasks I completed not only enhanced my technical abilities but also improved my problem-solving and time management skills.

FUTURE PLANS:

This internship has solidified my interest in data science and has equipped me with the necessary skills to pursue a career in this field. I look forward to applying the knowledge and experience gained in future projects and roles.