NullClass Internship Report

Introduction

This internship with NullClass focused on **enhancing data visualization, dashboard development, and time-based interactive features**. The main project involved integrating multiple charts into a **responsive dashboard** while applying complex data filters and conditional displays. The purpose was to gain hands-on experience in **data analysis, visualization, and web deployment**.

The goal was to strengthen **data analysis, visualization, and web deployment skills while** implementing **time-based conditional displays**. All tasks were designed to simulate **real-world analytics and dashboard development scenarios**.

Background

Data-driven decision-making is essential for organizations to track **job listings, preferences, and candidate demographics**. The project allowed building a dashboard where users could filter jobs based on multiple criteria such as **work type, experience, country, salary, qualifications, and job portal**.

Time-based conditional chart display ensures that certain data is only visible during specific hours, enhancing user experience and simulating real-world data accessibility constraints.

Learning Objectives

During this internship, I aimed to:

- Apply **advanced data filtering and preprocessing**
- Build **interactive charts and dashboards**
- Implement **time-based visibility for charts**
- Integrate **interactive maps for geographic data visualization**
- Ensure **responsive design across devices.**
- Enhance **problem-solving, self-learning, and research skills.**

Activities and Tasks

Task 1: Preference vs Work Type Chart

Filters Applied:

- Work Type = Intern
- Latitude < 10
- Country NOT starting with A, B, C, D
- Job Title ≤ 10 characters
- Company Size < 50,000
- Time Condition: 3 PM – 5 PM IST

Implementation:

- Dataset filtered using appropriate criteria
- Chart created and embedded in the dashboard.
- Time-based rendering logic applied

Live website: https://nullclasstask01.netlify.app/

Screenshot :

Task 2: Company Size vs Company Name Chart

Filters Applied:

- Company Size < 50,000
- Job Title = Mechanical Engineer
- Experience > 5 years
- Country in Asia
- Salary > $50k
- Work Type = Part-time / Full-time
- Preference = Male
- Job Portal = Idealist
- Time Condition: 3 PM – 5 PM IST

Implementation:

- Filters applied to the dataset
- Bar chart created and embedded
- Time-based conditional display applied

Live website: https://null2.netlify.app/

Screenshot :

Task 3: Top 10 Companies with Data Engineer Roles

Filters Applied:

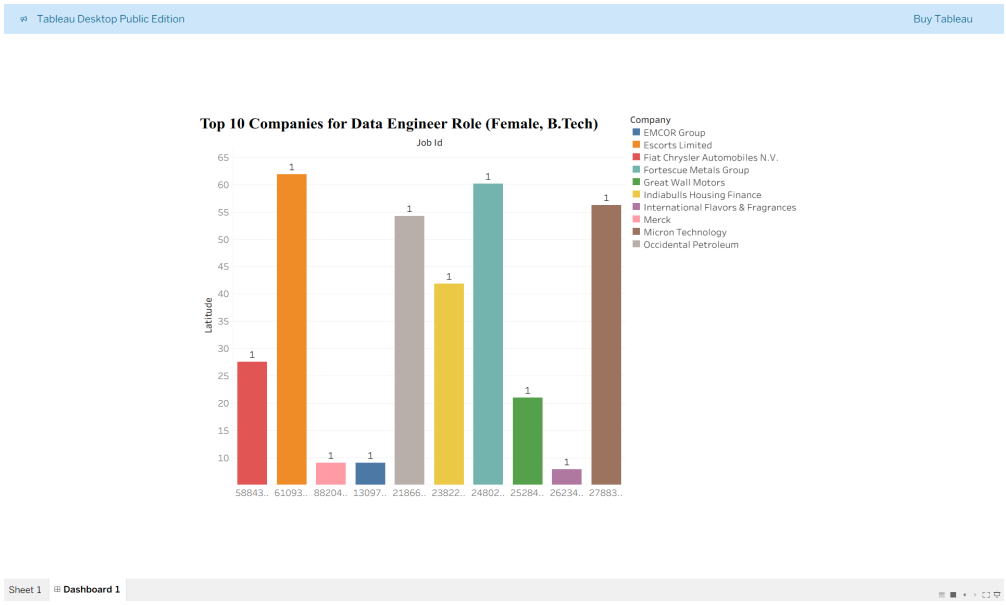
- Role = Data Engineer
- Job Title = Data Scientist
- Country NOT Asian and NOT starting with C
- Latitude ≥ 10
- Job Posting Date: 01/01/2023 – 06/01/2023
- Qualification = B.Tech
- Preference = Female
- Time Condition: 3 PM – 5 PM IST

Implementation:

- Data filtered and grouped to identify the top 10 companies.
- Chart embedded with time-based visibility.

Live website: https://nullclass3.netlify.app/

Screenshot:



Task 4: Map Chart with Full-time Jobs

Filters Applied:

- Qualification = B.Tech / M.Tech / PhD
- Work Type = Full-time
- Country = African continent only
- Job Title starts with D.
- Preference = Male
- Company Size > 80,000

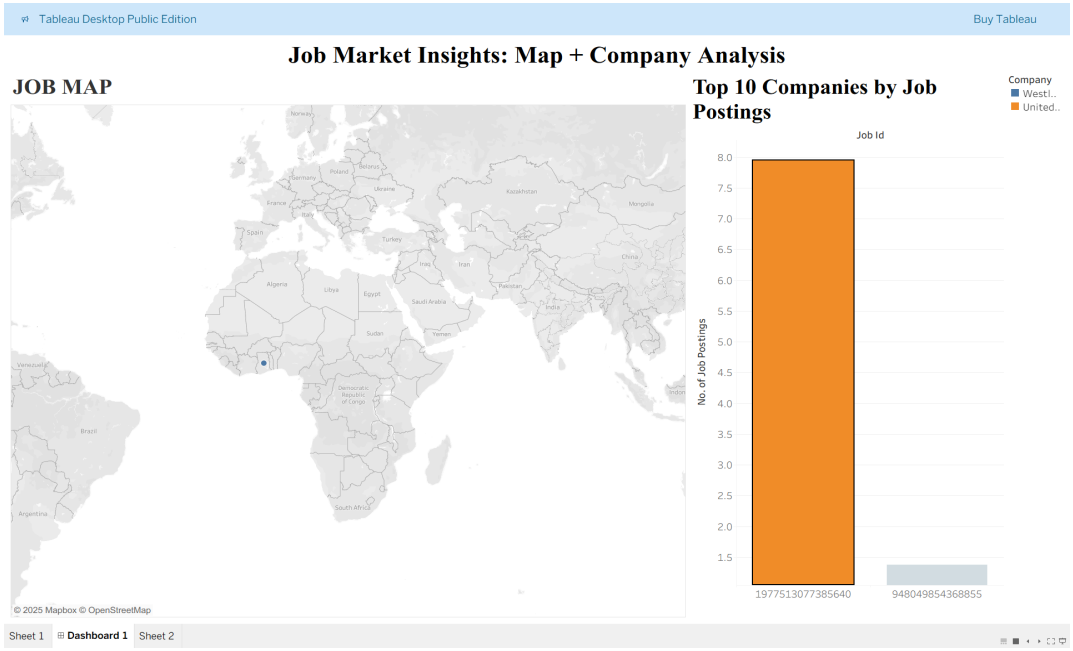
- Contact Person starts with A
- Job Portal = Indeed
- Time Condition: 3 PM – 6 PM IST

Implementation:

- Map plotted with latitude and longitude
- Interactive click functionality added for exact locations

Live website: https://nullclass04.netlify.app/

Screenshot :



Task 5: Country-wise Job Chart (India & Germany)

Filters Applied:

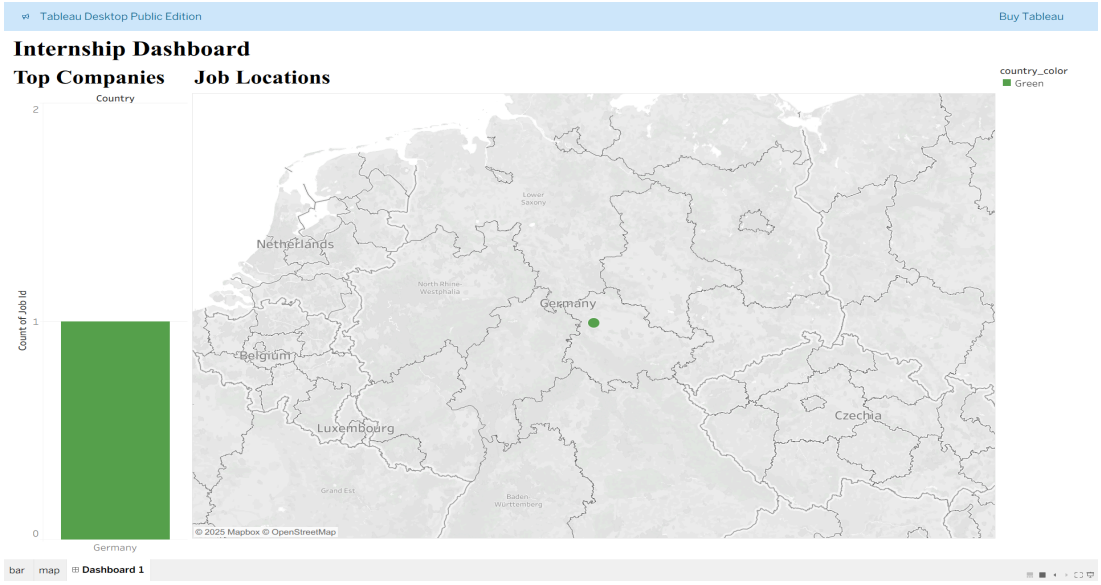
- Country = India / Germany
- Qualification = B.Tech
- Work Type = Full-time
- Experience > 2 years
- Job Title = Data Scientist / Art Teacher / Aerospace Engineer
- Salary > $10k
- Job Portal = Indeed
- Preference = Female
- Color Coding: India = Orange, Germany = Green
- Time Condition: 3 PM – 5 PM IST

Implementation:

- Filters applied to the dataset
- Chart created with country-specific color coding
- Time-based display implemented

Live website: https://nullclass5.netlify.app/

Screenshot :



Skills and Competencies

Technical Skills:

- Data filtering, analysis, and grouping
- Interactive dashboards and chart creation
- Map integration and interactive visualization
- Responsive web design for multiple devices

Soft Skills:

- Problem-solving
- Self-learning and research
- Time management

Feedback and Evidence

- All charts function correctly with applied filters.
- Dashboards are responsive across desktop, tablet, and mobile
- Time-based rendering ensures charts are visible only during specified hours.
- Map click functionality works for Task 4
- Screenshot placeholders ready for final submission

Challenges and Solutions

- **Multiple filters simultaneously:** Applied careful dataset indexing and filtering
- **Time-based chart display:** Implemented conditional display logic for IST
- **Map integration:** Embedded interactive maps with clickable coordinates

Outcomes and Impact

- Fully functional interactive dashboard with all 5 charts
- Charts dynamically display based on IST time conditions.
- The map feature provides an interactive exploration of job locations.
- Dashboard is responsive for all devices
- Enhanced data visualization and web deployment skills

Conclusion

This internship provided **practical experience integrating data analysis, visualization, and web deployment**. Completing all tasks enhanced my **technical and problem-solving skills**, and the final dashboard demonstrates my ability to implement **complex filters, time-based logic, and interactive features** in a professional environment.