Report: Job Portal Dashboard Creation Using Tableau - 2

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1)Introduction

Tableau is a versatile data visualization software that can convert raw data into interactive and publicly dismissible dashboards. Tableau, with its user-friendly drag-and-drop interface, is commonly used for business intelligence and analytics in all types of industries. This project involves the creation of a job portal dashboard using Tableau, embedding it on a website, and hosting it on Netlify. This report outlines the step-by-step process, challenges encountered, and the learning outcomes derived from this project.

2)Background

In the project the dataset ***'job_descriptions.csv'*** is used. The dataset consists of job-related information such as job titles, roles, job posting dates, preferences, company information and so on, which are useful for analysis. Tableau's capability to process big datasets and apply complex filter, it is the ideal solution for the data analysis.

3)Learning Objectives

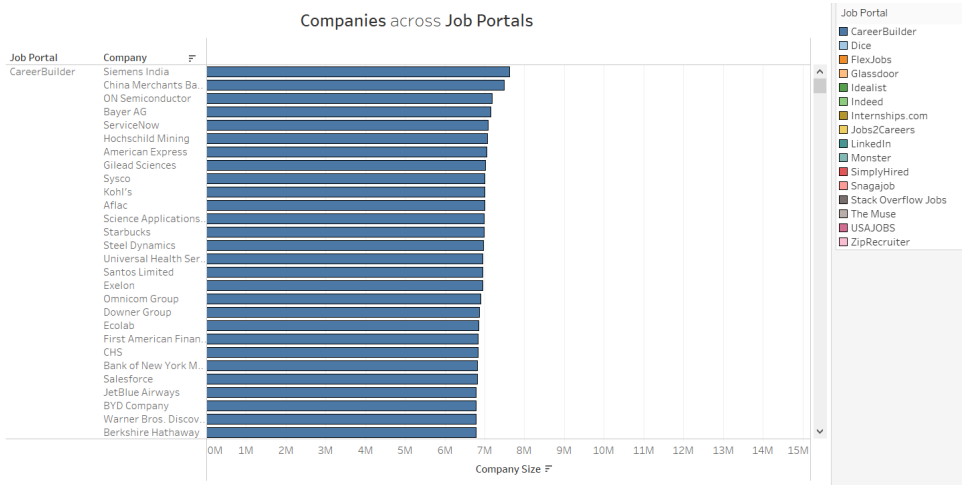
1. Develop proficiency in Tableau for creating interactive dashboards.
2. Learn to embed Tableau dashboards into websites.
3. Understand hosting and deployment processes using platforms like Netlify.
4. Obtain experience at using complex data filters to produce targeted visualizations.

4)Activities and Tasks

4.1 Creating Charts

Task 1: Companies across Job Portals
This chart shows the distribution of the job postings on the various portals and the companies. It measures this by the number of job listings.

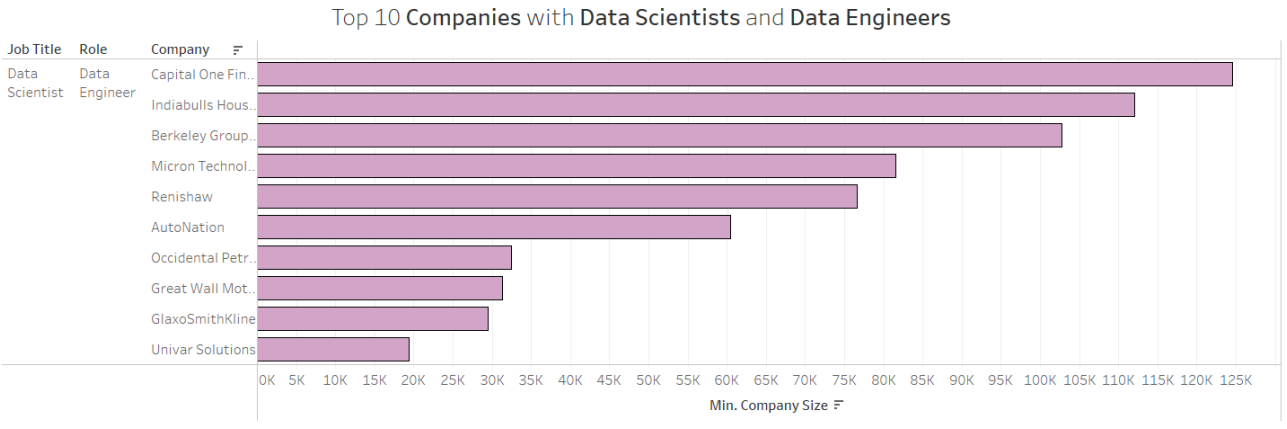
(Different Job Portals have been represented by different colors)



Task 2: Top 10 Companies with Job Title - Data Scientist and Role - Data Engineer (with various filters applied as mentioned)
This chart illustrates examples of how filters can be exploited for extraction of insights. It emphasizes the companies having high recruitment intensity for predefined roles under the specified constraints.

Filters Applied:

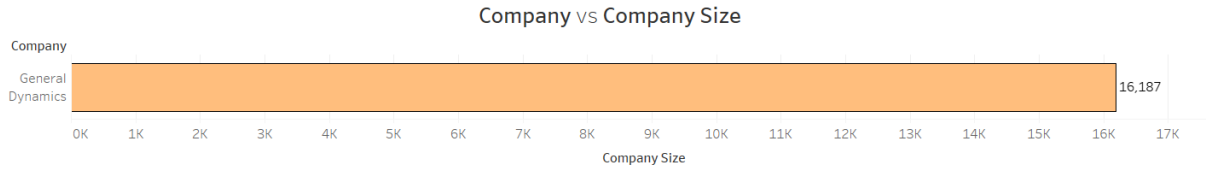
1. Country is excluded from Asian countries or starting with the letter C.
2. Latitude below 10 was excluded.
3. Job posting date filtered between 01/01/2023 and 06/01/2023.
4. Qualification restricted to B.Tech only.
5. Preference set to female candidates.



Task 3: Company vs Company Size (with various filters applied as mentioned)
Only one company is able to meet all required criteria. The filtering constrains the observation and thus the need to find a tradeoff between data resolution and the view quality is evident.

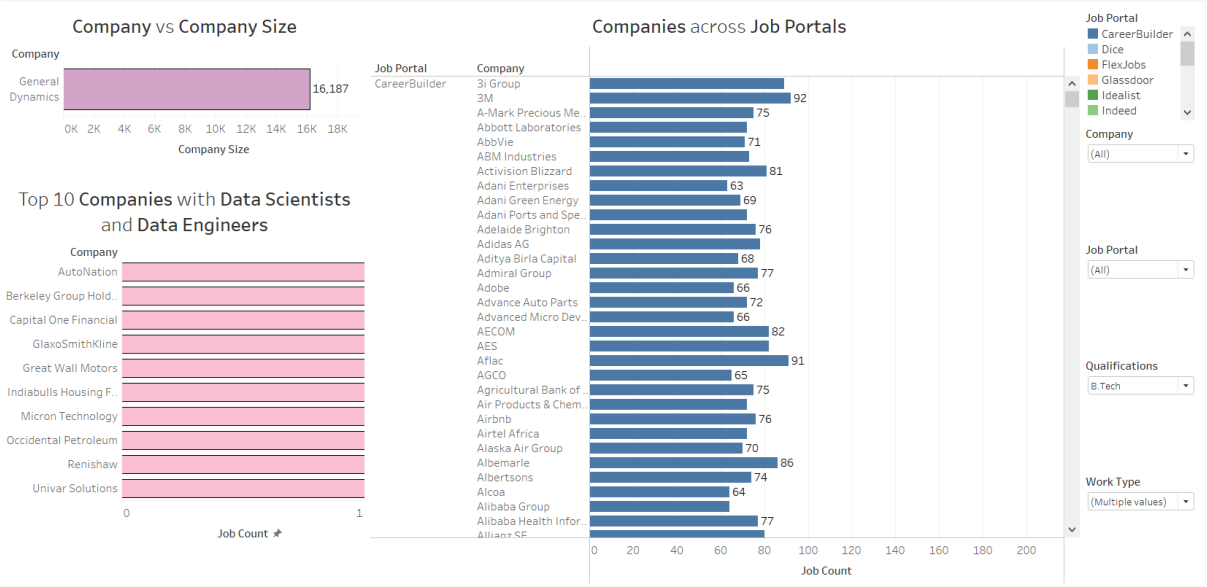
Filters Applied:

1. Job title set to Mechanical Engineer.
2. Experience set to greater than 5 years.
3. Country restricted to Asian countries.
4. Salary filtered for amounts greater than $50,000.
5. Work type set to both part-time and full-time only.
6. Gender preference set to male candidates.
7. Application source filtered to Idealist platform.



Task 4: Creating a dashboard

All these charts are placed now on the dashboard and the respective filters needed for the analysis are added to the right side of the dashboard.



4.2. Publishing, Embedding and Hosting

1. Dashboards were made available on Tableau Public
2. The embed code of the dashboard was changed in Visual Studio Code and executed locally with the "Go Live" checkbox.
3. The project folder was put on Netlify and the hosted url was created for public access.

5)Skills and Competencies

1. Data visualization using Tableau.
2. Embedding dashboards into websites.
3. Hosting websites on Netlify.
4. Application of filters to refine visualizations.

6)Feedback and Evidence

Feedback: The hosted website was inspected, and the usability of the dashboard was confirmed.

Evidence: The hosted dashboard can be accessed here - netlify

7)Challenges and Solutions

1. **Challenge:** Ensuring all filters were applied correctly for specific charts.

   Solution: Based on the viewing demonstration video, and cross-checked every single step in the process of chart generation.

2. **Challenge:** Restrictive Filters in Task 3:

   Details: Due to the numerous filters applied (job title, experience, salary, country, work type, gender preference, and application source), only one company satisfied all criteria. This dramatically compromised the informativeness of the chart since it showed only a single bar.

   Solution: Applied the filters as above and then added them to the chart. Identified the tradeoff between accuracy and visualization resolution and described this constraint.

8)Outcomes and Impact

1. Successfully developed and deployed a Tableau dashboard from the project requirements.
2. Gained hands-on experience with the implementation of Tableau and web, hosted dashboards.
3. Identified and overcame technical challenges, improving problem-solving skills.
4. Improved knowledge about combining data visualization toolkits with web technology.

9)Conclusion

The project offered a great chance to work with Tableau, use advanced filters, and make public use dashboards. Goals were achieved and solved challenges with learning and skill development. The filtering nature of filters in particular, Task 3, highlighted the need to trade off precision with efficient communication in visualizations. The hosted website represents proof of what has been done and what has been learned during the process.