PROJECT REPORT

Prepared by-

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**Real-Time Job Analytics Dashboard with Conditional Data Visualization**

**Introduction**

Under this project, I have built a website in which job data can be analyzed in real time. Along with this, through this website we can present job data in graphical form. I have designed this website in such a way that any user can understand all the data related to the job based on the filter. In this project, I have used various tools of JavaScript, ReactJS and Data Visualization. This includes the name of Chart.js, D3.js and API. Using this, I have created various charts so that it is easy to understand the job data in real time.

**Background**

At present, due to the increasing demand for data analytics, people have become very interested in it. Therefore, such platforms are being developed where various companies are selecting candidates for jobs. For this, I have designed a proper website to analyze the status of jobs and the profiles of the candidates. During this internship, I created the website without the help of a mentor and I got the experience of learning information related to data analytics.

**Learning Objectives**

During this project, I have gained practical knowledge of data visualization. Apart from this, I learned to use ReactJS and JavaScript and learned about front end development. I filtered data, created charts and learned to use Google Map API. I made it responsive for mobile and tablet and learned to host the website on vercel.

**Activities and Tasks**

Task 1:

There is a chart which shows relationships between Country, Job Title, and Role. I have completed using a multi-series bar chart which shows grouped job roles per country.

Task 2:

There is a chart between Preference and Work Type = 'Intern', with strict filters:

Latitude < 10

Country name must not start with A–D

Job title < 10 characters

Company size < 50000

Render only from 3 PM to 5 PM IST

I have completed it using conditional rendering with current time check, implemented via JS Date object.

Task 3:

There is a chart for:

Qualification in [B.Tech, M.Tech, PhD]

Work Type = 'Full Time'

Country in Africa only

Job Title starts with 'D'

Preference = Male

Company size > 80000

Contact person starts with 'A'

Portal = Indeed

Include latitude and longitude, clickable to show Google Maps location.

Time filter: 3 PM to 6 PM IST

I have implemented React with dynamic data filters and Google Maps API integration.

Task 4:

There is a chart between Company Size and Company Name:

Job Title = 'Mechanical Engineer'

Experience > 5 years

Country = Asian

Salary > $50k

Work Type = Full-time or Part-time only

Preference = Male

Portal = Idealist

Time Restriction: 3 PM to 5 PM IST

I have implemented a stacked bar chart, filter chaining, and time-based visibility control.

Task 5:

There is a chart for:

Countries: India and Germany

Qualification = B.Tech

Work Type = Full-Time

Experience > 2 years

Salary > $10k

Portal = Indeed

Preference = Female

Job Posting Date < 08/01/2023

India = Orange color, Germany = Green color

Time-based visibility: 3 PM to 5 PM IST

There is a color-coded line chart added with strict date, job title, and time logic handling.

**Skills and Competencies**

While preparing this project, I got to see many skills and competencies in me. I gained experience of ReactJS, JavaScript, Chart.js, D3.js. Apart from this, I gained knowledge of API integration and Google Maps. After this, I built many qualities in myself like doing research, finding solutions and self-learning. This has also made my website completely mobile friendly.

**Feedback and Evidence**

Under this project, I successfully created a website and added all the features to it, as instructed. Under this, I have attached the live link and screenshot of the website as well as video proof so that there is no problem in understanding it.

**Challenges and Solutions**

While completing this project, I faced many challenges, which included showing charts based on time, Google Map linking, making the website responsive, complex filters like length of job title etc. As a solution, I used the date object of the main JavaScript and prepared the chart according to the current IST. Along with this, I did the filtering work with string methods. I used embedded maps to make dynamic latitude and longitude clickable. I used CSS flex/Grid and Media Queries to make the website responsive. With this, I made it capable of displaying properly on mobile.

**Outcomes and Impact**

To prepare for this project of NullClass, I learned about Front end development and data analysis as well as API integration. Along with this, I gained knowledge of real time conditional programming, understood it, did research and prepared the project. With this my website was completely ready and I was successful in making the project.

**Conclusion**

With the help of the study material provided by NullClass, I was able to understand all the aspects of Data Analytics. With this I was able to gain skill development based experience. Under this, I built practical problem solving skills and was able to gain confidence by completing the project. With this I will also get online certification and my product portfolio will also become stronger.

**GitHub Link**