Module Title: B9DA106 DATA VISUALIZATION

Assignment Title: Continuous Assessment TWO

Lecturer: Neeraj Jha

Group Members

Venkaiah Malli 20036676

Tableau dashboard

Tableau dashboard visualizes the trends in job markets, with a key focus on the average salaries over different work types-full-time, part-time, and remote-and across geographic regions. Each of these has a color attached to it-green, orange-ended, and shows the rate of variation, with most full-time positions with higher paid roles. Month-on-month trends and filtering by year and country reveal seasonal patterns in hiring, and by location shows salary variation based on salary. Interactivity conveys two key messages: Work type determines salary distribution.

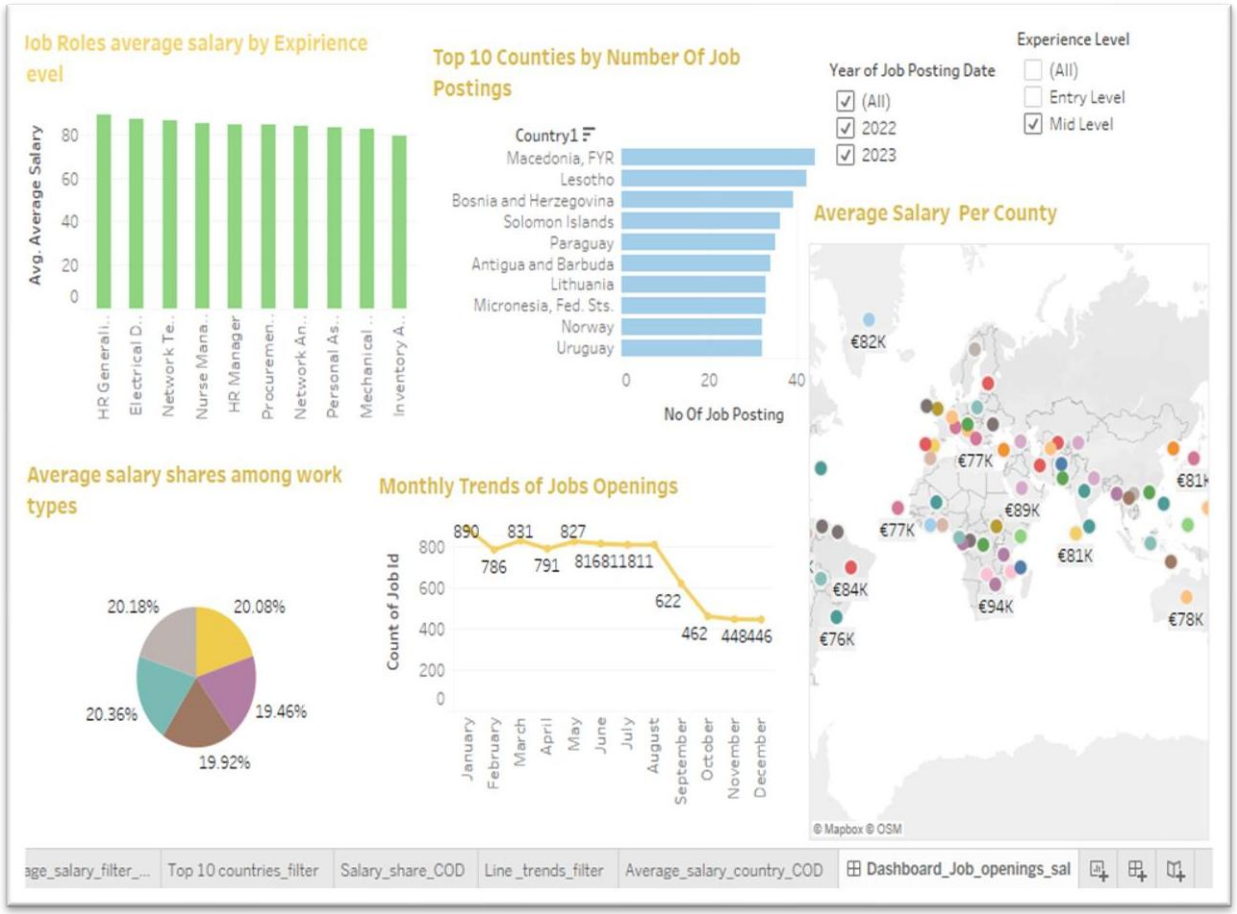

Figure 2.1 Tabluea Dashboard

1. Bar Chart for Job Roles Average Salary by Experience Levels

This chart represents the average salary by job title, further divided based on experience. The general rule is that people earning higher wages usually have more experience, compared to those working in entry-level positions. This insight assists job seekers who want to ensure that the salary they are seeking relates to the experience they have.

2.Stacked Bar Chart for Top 10 Countries by Number of Job Postings

This graph includes a stacked bar chart which displays the distribution of the jobs posted per country in the top 10. It also indicates the countries receiving the highest number of job advertisement placements thus pointing out regions within countries with the most robust labour markets.This information proves useful for the candidates in search of employment in particular geographical regions.

3. Pie Chart for Average Salary Shares Among Work Types

The pie chart presents how the average salary is split by the type of work, whether it is full-time, part-time or contract basis, and so on. Separating and presenting the salary shares by the type of work indicates the levels of remuneration determined by the employment status. This insight becomes useful while comparing full-time employment, part-time employment, and contract offers according to the salary anticipated.

4. Line Chart for Monthly Trends of Job Openings

The line chart compares the pattern of job openings showing that recruitment has a cyclic pattern every month. This feature presents ascent dates for maximum hirings and fluctuations observed in the availability of jobs. It makes it easier for job seekers to apply at the right time, and for employers, it gives a clear picture of the trends of recruitment during the year.

5.Map Representing Average Salary Per Country:

The map represents the average salaries of several countries with the help of colour-coordinates to different salary ranges. The interpretation of the individual getting higher.

Power BI dashboard

The use of Power BI in developing the dashboard is informed on key trends in the job market regarding roles, pay, openings, and distribution among regions salaries along with job openings.

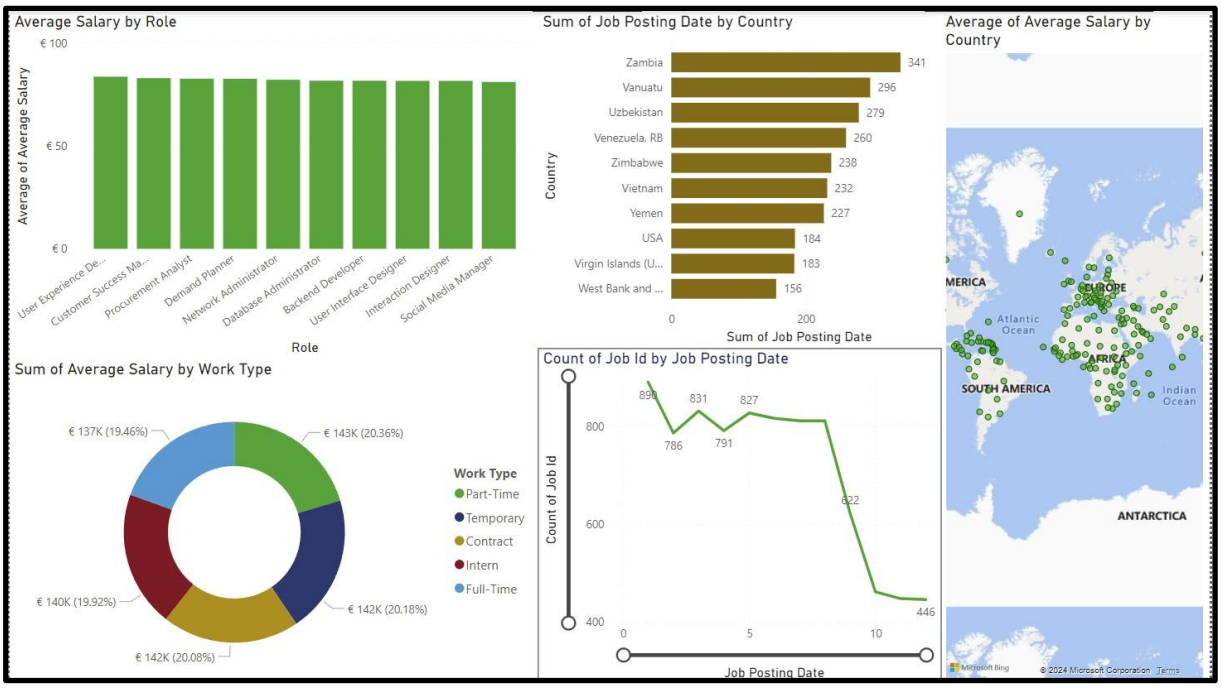

Figure 3.1 Power bi Dashboard

1. The bar chart of average salary by job role and experience

Bar chart average salary by hob role will help direct comparison of compensation across roles and experience levels. This proves that there is a higher pay rate for individuals with advanced experience levels, something that could help job seekers understand the trend of career enhancement.

2. Top 10 Countries by Number of Job Postings

A stacked bar chart of the top 10 countries by number of jobs posted gives an easy comparative look into the global recruiting scenario. It raises awareness of the countries that offer the largest number of vacancies and makes people focus on countries with intense demand in the labour market.

3. Doughnut for Average Salary Shares Among Work Types

The doughnut chart showing the average salary share by work type reflects the distribution of salary that workers and employees received per type of employment like full-time, part-time and contract employment. This helps one conduct a quick analysis of the salary of the worker depending on the work status which is useful for one who is choosing which job to take

4. Line Chart for Monthly Trends of Job Openings

The line chart that depicts the trends of jobs advertised every month enables tracking of cyclical trends of job availability whereby appropriate periods for hiring can be easily determined .It is useful to residents searching for employment because it reveals which months are ideal for searching for jobs, and useful to employers, as it indicates how to forecast their hiring needs.

5. Average Salary by country

The map of average salary shows salary distribution by country giving the geographical outlook. They also show the distribution of compensation ensuring that people who are thinking of moving or working remotely have the right information to make a sound decision.

Critical Reflection on Working with Tableau and Power BI

The creation of dashboards for the analysis of the job market was supported by two strong data visualization tools: Tableau and Power BI. Each of these tools has its own unique features. While both tools can help create insightful visualizations, my experience emphasized sharp differences in their usability, particularly relating to calculated fields, filters, and the general intuitiveness of the tools. Below, I reflect on these differences based on my experience working with the visualizations and dashboard elements in both tools.

1. Working With Filters:

In Tableau, filtering can be a little more involved: it is multistep processes to add filters across different sheets or keep them synchronized across views. Although Tableau offers flexibility-basically, filter by field, relative date-the process of configuring such filters feels a little less intuitive and requires more effort in comparison with Power BI.

In contrast, Power BI has a much smoother experience due to its drag-and-drop interface. Filters are added in easily with slicers, and those slicers update all relevant visuals with one click. Thus, making Power BI more user-friendly: at every moment in time, one could dynamically explore data based on changing parameters such as location or experience level while consistency across the dashboard.

2. Working with Calculated Fields:

Creating calculated fields is much easier in Power BI as its DAX interface is user-friendly to create calculated columns or measures. So, finding the average, or finding out the range of salaries, is relatively easy without having to wrestle with complicated programming.

By contrast, the formula editor in Tableau is flexible but requires a better understanding of its syntax. It requires more work to do such things as build calculations for salary ranges, making it less intuitive to learn for a beginner. While Tableau offers advanced capabilities such as LOD expressions, its learning curve is steeper compared to Power BI.

3. Ease of Use and Intuitiveness

Power BI is very intuitive, drag-and-drop, and perfectly integrated with Microsoft tools such as Excel, which will make it much faster and easier for those users already using the Microsoft suite.

On the other hand, while Tableau offers impressive visualization, it's less intuitive. Advanced actions, filters, and other customization usually need more manual workarounds; hence, it is less beginner-friendly than Power BI.

4. Visualization and Customization

Tableau is great for building nice attractive dashboards with extensive customization options, offering greater control over design elements like colors, fonts, and layouts.

Power BI focuses on ease of use and functionality, providing straightforward visuals suitable for quick analyses and reporting. While it supports custom visuals, it does not offer the same level of design flexibility as Tableau.

5. Conclusion:

Both Tableau and Power BI are powerful for visualizing data, though each of them has a strong suit. Power BI is by far more intuitive to work with for users who are either new to data visualization or those already accustomed to using Microsoft products. Its drag-and-drop functionality, ease of integrating filters, and simpler approach to calculated fields made it the go-to tool for quickly building an interactive dashboard that allows users to easily filter and explore job market data.

However, Tableau's strengths are in highly customizable visualizations and depth of analysis that it allows. While Tableau may have a steeper learning curve, it is better suited for users who need high levels of control in the design and presentation of their dashboards.

The final choice between Tableau and Power BI will depend on one's needs and experience. Power BI targets ease of use with an out-of-the-box dashboard with direct analytics, whereas Tableau has much richer visualization and design possibilities that can be more flexible.