**Project Plan for Data Jobs Salary**

1. Scoping the project

Define business challenges

Develop hypotheses

Define data metrics

Propose solution

Mock up solution

Propose pilot design to measure impact

Problem statement and create dashboard

1. Acquire Data

Identify data source and gain access

**Scope - plan the project**

**Design - create a blueprint of the project**

**Prepare - clean the data**

**Test - run data validation checks on the data**

**Visualize - create graphs and charts with the data**

**Analyse - explore the insights from the data**

**Recommend - provide options to the user and back them up with data**

**Dirty data:**

1. **Duplicate records**
2. **Inconstant format**
3. **Missing values on nulls**
4. **Inaccurate information**

I’m struggling to come up with a data project out if this data set. Help me simulate a problem statement and create a dashboard out it.

**Scoping the project**

‘*Our organisation lacks a comprehensive understanding of salary disparities and the factors influencing them, such as job title, experience level, remote work, geographical location, and company size. We need an interactive dashboard to visualise these trends and provide actionable insights for making informed salary-related decisions.’*

This dataset offers comprehensive insights into data salaries and employment attributes from 2020 to 2024. It includes key information such as salary, job title, experience level, employment type, employee residence, remote work ratio, company location, and company size. Using this dataset, I aim to explore the following questions:

1. **Analysing Salary Trends by Job Title and Experience Level**

* Investigate how salaries differ across job titles and experience levels.
* Identify which job titles and experience levels have the highest and lowest average salaries.

-- Summary Statistics for Salary by Job Title

SELECT

job\_title,

ROUND(AVG(salary\_in\_usd),2) AS avg\_salary,

MIN(salary\_in\_usd) AS min\_salary,

MAX(salary\_in\_usd) AS max\_salary

FROM data\_salaries

GROUP BY job\_title

ORDER BY avg\_salary DESC

LIMIT 10;

From the results we can see that Analytical engineering manager had the highest average salary of $399880.00 which was also the min and max salary which indicates that this could be the only role which is relatively new in the data filed. Usually up and coming fields or technology command a higher salary due to a lack of expertise in the field.

1. **Impact of Remote Work on Salaries**

* Examine the relationship between remote work ratio and salary.
* Determine if employees working remotely tend to have higher or lower salaries compared to those who work on-site.

1. **Geographical Salary Analysis**

* Compare salaries across different employee residences and company locations.
* Identify regions with the highest and lowest salaries.

1. **Company Size and Salary Correlation**

* Analyse how company size affects salaries.
* Determine if larger companies pay more than smaller companies.

**Hypotheses**

1. **Salary Disparity Hypothesis:**

* Senior and executive-level positions have significantly higher salaries compared to mid-level and entry-level positions.

1. **Remote Work Hypothesis**:

* Employees working fully remotely tend to have higher salaries compared to those working on-site or partially remote.

1. **Geographical Discrepancy Hypothesis**:

* Employees in certain regions (e.g., urban areas or tech hubs) have higher salaries than those in other regions.

1. **Company Size Influence Hypothesis**:

* Larger companies offer higher salaries compared to smaller companies.

**Data Metrics**

1. **Average Salary:**
   * By job title
   * By experience level
   * By employment type
   * By remote work ratio
   * By geographical location (employee residence and company location)
   * By company size
2. **Salary Distribution:**
   * Across different job titles and experience levels
3. **Remote Work Impact:**
   * Comparison of average salaries based on remote work ratio
4. **Geographical Salary Trends:**
   * Mapping average salaries by employee residence and company location

**Mock-Up Solution**

1. **Main Dashboard Components**:
   * **Job Title and Experience Level Analysis**:
     + Bar charts or box plots for average salaries by job title and experience level.
   * **Remote Work Impact**:
     + Bar chart comparing average salaries based on remote work ratio (0%, 50%, 100%).
   * **Geographical Analysis**:
     + Map visualisation showing average salaries by employee residence and company location.
   * **Company Size Impact**:
     + Bar chart showing average salaries across different company sizes (small, medium, large).
2. **Interactive Features**:
   * Filters for job title, experience level, employment type, and company size.
   * Drill-down capabilities to view detailed salary distributions.
3. **Average ticket price**