Work Force Data Analysis Report

Introduction:

This report explains how data analytics perform businesses makes better decisions. It shows how companies can plan their workforce, manage costs, understand market trends, improve HR policies and support remote work data.

Main goals of this report:

- **Salary Optimization**: Use salary data from different regions and job roles to make sure employees are paid competitively.
- **Workforce Planning**: It helps in companies plan hiring, recruitment and employee retention by analyzing data on company size and experience levels.
- **Remote Work Policy Development**: It uses remote work data to create flexible work policies as per current trends.
- **Cost Management:** It reduce workforce costs by using salary and experience data from different markets to make better decision.

Key Findings:

- Salaries vary as per job title, location, experience levels and company size
- Salaries for certain jobs are lower than the Market average salary
- Identified which year had the highest average salary for each job title
- Identified which countries have the highest number of large companies
- Identified locations where entry level salaries surpass the market average
- Identified countries with consistent salary growth over the past years
- Calculate the percentage of full-time and part-time employees for each job title
- Compare the adoption of fully remote work across experience levels in specific time period
- Implement security to restrict access based on an employee's experience level
- Few clients are switching domains based on salary insights

Methodologies:

- **Tools Used**: Microsoft SQL Server Management Studio (SSMS)
- **Database Tables:** Salaries
- **SQL Techniques Applied:**
    - SELECT, WHERE, BETWEEN, IN, NOT IN

- o Left join, Inner join, Self-join
- o Group By, Having
- o Subqueries (Nested)
- o Aggregate Functions: AVG, MAX, MIX, Count
- o Conditional Login using CASE
- o Set Operations: Union, Intersect, Except
- o Security restrict access i.e. Roles and its access

Approaches:

- Basic Data Retrieval queries based on job title, location, experience levels and company size

- Perform Joins across tables to most significant salary growth in entry-level positions

- Use grouping and aggregation functions to analyze employee details based on salaries

- Use subqueries to compare individual salaries of employee

- Implement conditional logic to classify employees based on job title, work year, experience level

- Implement conditional queries and access control mechanisms, ensuring employees can only access records relevant to their experience level

Insights:

- People doing the same job can earn different salaries based on where they work, how much experience they have, and the size of the company.
- Some years had better salary growth, which can be linked to business needs or market demand.
- Below-average pay may lead to difficulty in hiring top talent.
- Countries with larger companies may have better job stability and benefits.
- Experienced employees are more likely to work remotely, while newer employees may need more support in person.
- Giving access based on experience level keeps important data safe.

Actions

- Review and increase salaries for these jobs to attract and keep skilled employees.
- Use market trend to plan future salaries and hiring budgets.
- Focus hiring efforts in countries to find experienced and stable candidates.

- Use more part-time or contract workers in roles where it makes sense to save costs.

- Create flexible work-from-home policies based on experience level.

- Set up system rules so only the right people can see or use sensitive information.

Conclusion:

This report shows that **salary, job roles, company size, and location** all play an important role in employee performance. It highlights how data-driven insights can shape smarter HR and business strategies. In short, data-driven workforce planning helps businesses stay competitive, reduce costs, and create a more satisfied and future-ready workforce.