**Project Report: Salary Analysis Using Excel & SQL**

# 1. Title & Objective

Project Title: **A Data Analytics Project using Excel & SQL**  
Batch: **DADS March'25**Submitted by: **Harene K**  
**Project Objective:**- Analyze global salary data to discover trends based on industry, gender, education level, and experience.  
- Clean and structure the dataset for SQL integration.  
- Perform SQL queries to extract insights.  
- Build an interactive Excel dashboard using Pivot Tables and Charts.

# 2. Dataset Description

Source: Salary Survey 2021 Dataset (28,000+ records)

|  |  |
| --- | --- |
| Attribute | Description |
| Country, State, City | Work Location |
| Job Title, Industry | Role and Sector |
| Annual Salary, Additional Compensation | Base and bonus earnings |
| Gender, Age Range | Demographics |
| Highest Education Level | Academic Achievement |
| Years of Professional Experience | Total and in-field experience |

# 3. Data Cleaning & Preprocessing

- Removed rows with missing or incomplete values.  
- Standardized job titles, gender entries, and country names.  
- Converted inconsistent formats.  
- Identified and removed outliers in salary columns.  
Tools Used: Excel – Filters, formulas, sort functions

# 4. SQL Integration

- Created a MySQL database: salary\_db  
- Designed table structure to match dataset attributes.  
- Imported the cleaned dataset using MySQL Workbench.  
- Ran 10 SQL queries to explore:  
 - Salary by Gender, Industry, Education, Age Group  
 - Compensation Trends by Job Role and Experience  
 - Bonus Distribution

# 5. Query Outputs & Excel Work

- Exported each query result to .csv files  
- Imported each into individual Excel sheets (Q1 to Q10)  
- Created Pivot Tables for visual summarization  
- Inserted charts: Bar, Column, Line, Pie, Treemap

# 6. Key KPIs Identified

|  |  |
| --- | --- |
| KPI | Value |
| Average Final Salary | ₹7.5 Lakhs |
| Top Paying Country | Japan – ₹1936 Cr |
| Most Experienced Industry | Finance |
| % Employees with Bonus | 42.5% |
| Highest Paid Job Title | Senior Data Scientist |

# 7. Dashboard Overview

- Dashboard created in Excel using Pivot Charts  
- Integrated filters for dynamic analysis:  
- Slicers for Gender, Country, Industry  
- Visualized trends using:  
- Salary by Experience & Education  
- Bonus eligibility by Gender  
- Top countries and job roles

# 8. Insights & Recommendations

Insights:  
- Tech & Finance roles consistently have the highest salaries.  
- Salary increases with experience and education.  
- A gender pay gap still exists in many sectors.  
  
Recommendations:  
- Organizations should conduct regular salary audits.  
- Promote training/upskilling in high-paying technical roles.  
- Focus on policies that ensure pay equity across all genders.

# 9. Conclusion

- This project successfully completed the full data life cycle:  
- Cleaning → Integration → Querying → Visualization  
- Key skills developed:  
- Excel Data Handling & Dashboarding  
- SQL Query Writing  
- Business Insight Development  
  
Final Deliverables:  
- Cleaned dataset  
- MySQL database with imported table  
- 10 SQL query outputs (CSV)  
- Excel workbook with charts & dashboard  
- PowerPoint presentation  
- This written report  
  
Thank you!