

Global Freelancer Analysis

1.Project Overview and Objective:

- This project involves cleaning, transforming, and analysing raw data using Excel and creating an interactive dashboard to derive meaningful business insights.
- The main objective is to demonstrate data pre-processing techniques using Excel and an interactive dashboard visualization to make informed decisions.
- _____

2. Data Sources

- **Source Description :** An Excel data source compiling comprehensive information on the worldwide freelance workforce.
 - **Domain:** Freelancer Demands
-

3. Problem Statement

- The global freelancing market is rapidly expanding, yet organizations and individuals lack clear insights into freelancer skills, pricing patterns, and performance trends, making it difficult to make data-driven hiring and strategic decisions.
-

4. Attribute (Column /Features) Details:

Attribute Name	Data Type	Description
Freelancer_ID	String	Freelancer ID is a unique identifier assigned to each freelancer in the dataset.
Name	String	Name represents the full name of the freelancer in the dataset
Country	String	Country indicates the freelancer’s home country .
Gender	Categorical	Gender represents the freelancer’s identified gender.
Age	Numeric	Age indicates the current age of the freelancer.
Language	String	Language indicates the primary language spoken by the freelancer.

Primary_skill	String	Primary Skill represents the main expertise or professional skill of the freelancer.
Year of Experience	Numeric	Years of Experience indicates the total professional experience of the freelancer.
Hourly Rate in USD	Numeric	Hourly Rate (USD) indicates the freelancer's charge per hour in US dollars.
Salary Status	Categorical	Salary Status specifies the current range of the freelancer's earnings
Rating	Numeric	Rating indicates the freelancer's performance score based on client feedback.
Is_Active	Categorical	Is Active indicates whether the freelancer is currently active on the platform.
Client Satisfaction	Numeric	Client Satisfaction indicates the overall satisfaction level of clients with the freelancer's work.
Notes	String	Notes contains additional remarks or comments about the freelancer
Status	Categorical	Status specifies the freelancer's current profile or account condition, such as active, inactive, or completed.
No of Projects	Numeric	Number of Projects indicates the total projects completed by the freelancer.
Duration of months	Numeric	Overall time duration taken by freelancer to complete the projects.
Skill_code	String	Skill code is unique code assigned to each skills.

5. Tools & Technologies

- **Excel:** Data cleaning, transformation, Pivot Tables, Data modelling, calculations, visualization, and interactive dashboard creation.

6. Data Pre-Processing (Excel / Power Query)

Tasks Performed:

- **Data Cleaning & Transformation:**
Created calculated field to find the salary status of each freelancers.
- **Filtering & Sorting:** Data was filtered to find skill demands overall in each country.
- **Pivot Tables:** Generated Pivot Tables for data summarization and initial insights.
 1. Created Pivot Tables for Maximum Remuneration by skills.
 2. Created Pivot table to analyse Skill demands by freelancers.
- Fact Table are converted to one Dimensional Table

7. Data Modelling

- **Data Model:** Established relationships between tables, defined cardinality, and created lookup tables where necessary.
- **Relationship created for main table and dimensional table**

SCREENSHOT OF DATA MODELLING

8. Analysis and Visualizations

Dashboard Features:

- **Multiple Visualizations based on problem statement:** Bar charts, line charts, pie charts, cards, and tables to communicate insights.
 1. Bar chart to find country wise salary variation.
 2. Pie chart for project vs country.
 3. Combo Chart for Skill vs age & salary.
 4. Colum chart for country vs skills & salary.
- **Filters and slicers**
- **Created a consolidated Report /Dashboard.**
- **Descriptive Analysis**
- **Diagnostic Analysis**
- **Predictive Analysis**
- **Prescriptive Analysis**
- **Consolidated Refinery Insights Report**

9. Insights & Conclusions

- **Key Findings:**

Freelancer Demographics:

- Majority of freelancers are aged between 30–35 years.
- A diverse global distribution, with top contributors from countries like the South Korea, the Canada, and the Australia.

Skill Distribution:

- Top primary skills include Web Development, Mobile Apps & UI/UX Design.
- Emerging demand for Machine Learning, Devops, Graphic Design and Cyber Security skills.

Experience & Earnings:

- Freelancers with 5–10 years of experience tend to command higher hourly rates.
- Maximum hourly rates reach up to 20\$, while minimum rates are around 100\$.

Project Engagement:

- Active freelancers complete more projects and maintain higher client satisfaction ratings.
- Average project duration varies by skill type; technical projects often take longer.

Client Satisfaction & Ratings:

- Higher-rated freelancers tend to receive more consistent work and higher earnings.
- Language and communication skills impact client satisfaction significantly.

Salary Trends:

- Salary or hourly rates differ significantly across regions and skill sets.
- Remote and tech-focused roles generally have higher average compensation.

- **10. Conclusions**

The global freelance workforce is diverse in terms of geography, skills, and experience, with certain regions and skill sets dominating demand. Experience, primary skills, and client ratings strongly influence freelancer earnings and project engagement. Data analysis reveals clear trends in hourly rates, project durations, and client satisfaction, enabling better decision-making for hiring or platform management. Active freelancers with strong communication skills and high ratings consistently achieve higher compensation and more projects. Structured data cleaning and transformation are crucial for extracting actionable insights and ensuring accurate analysis.