

REPORT ON MINI PROJECT

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Project title: **Global Freelancer Performance Analysis**

Project domain: **Human Resources (HR)**

Tools used: **Excel and PowerBI**

Submission date: **21/2/2026**

Mentor name: **Kumaran M**

Raw data set link: [RAW DATASET](#)

Cleaned data set link: [CLEANED DATA](#)

Global Freelancer Performance Analysis

This project focuses on analyzing a global freelancer dataset to identify patterns in performance, experience, hourly rates, and client satisfaction using Power BI. However, the dataset initially contained several inconsistencies, including missing values. Therefore, data cleaning and transformation were performed in Excel to ensure data quality and to transform the raw dataset into meaningful insights through effective visualization.

Objectives

- Clean and standardize the dataset
- Handle missing values using statistical techniques
- Analyze freelancer distribution across countries
- Study relationship between experience and hourly rate
- Compare active vs inactive freelancers
- Create an interactive Power BI dashboard

Tools Used

- Microsoft Excel (Data Cleaning & Preprocessing)
- Power BI Desktop (Data Visualization & Dashboard Creation)

DATA CLEANING

1. Gender Column Cleaning

In gender column, the data are inconsistent like f ,FEMALE, male, F, So I decided to proper formula to captitalize first letter, then I use If function to change “f” to Female, “m” to Male. The formula I used is
=PROPER(IF(C2="f","Female",IF(C2="m","Male",C2)))

The diagram illustrates the process of cleaning the gender column. On the left, a column labeled 'gender' contains raw data with various case combinations: f, FEMALE, male, F, female, female, m, male, male, MALE, m, FEMALE, Female, MALE, MALE, m, Female, M, Male, Male, Male, m, m, female, f, FEMALE, female, Female, female, FEMALE, Male, Male, M, male, FEMALE, female, f, and F. An arrow points from this column to a central box containing the formula: `=PROPER(IF(C3="f","Female",IF(C3="m","Male",C3)))`. Another arrow points from this box to a column on the right labeled 'Gender Corrected'. This column shows the result of the formula, where all entries are properly capitalized: Female, Female, Male, Female, Female, Female, Male, Male, Male, Male, Male, Male, Female, Female, Male, Male, Male, Female, Male, Male, Male, Male, Male, Female, Female, Female, Female, Female, Female, Male, Male, Male, Male, Male, Female, Female, Female, Female, Female, Male, Male, Male, Male, Female, Female, Female, Female, Female.

gender	Gender Corrected
f	Female
FEMALE	Female
male	Male
F	Female
female	Female
female	Female
m	Male
male	Male
male	Male
MALE	Male
m	Male
FEMALE	Female
Female	Female
MALE	Male
MALE	Male
m	Male
Female	Female
M	Male
Male	Male
Male	Male
Male	Male
m	Male
m	Male
female	Female
f	Female
FEMALE	Female
female	Female
Female	Female
female	Female
FEMALE	Female
Male	Male
Male	Male
M	Male
male	Male
FEMALE	Female
female	Female
f	Female
F	Female

2. Age Column Cleaning

In Age column some data are missing, so I take average for the age column and I fill the Missing areas with that average. I use if formula to fill the missed area with average.

The diagram illustrates the process of filling missing age data. On the left, a column labeled 'age' contains various age values: 42, 37, 21, 50, 22, 39, 25, 47, 35, and a row highlighted in green labeled 'missing value'. An arrow points from this column to a central box containing the formula: `=IF(D265="",AVERAGE(D2:D1001),D265)`. Another arrow points from this box to a column on the right labeled 'Age Corrected'. This column shows the result of the formula, where the missing value has been replaced by the average age, 41. On the far left and right, there are screenshots of the 'Filter by Color' dialog box, showing that the 'missing value' row is selected. The text 'There is blanks' is written below the left screenshot, and 'There is no blanks' is written below the right screenshot.

age	Age Corrected
42	42
37	37
21	21
50	50
22	22
39	39
25	25
47	47
35	35
missing value	41
35	35
59	59
26	26
44	44
31	31

3. Country Column Cleaning

In the Country column, some values were missing. Since it is a categorical variable, missing values were handled using INDEX and MATCH. The INDEX and MATCH functions were used to retrieve the corresponding country from Language. The IF function used to check the missed value and fill it.

=IF(E2="", INDEX(\$E\$2:\$E\$1000, MATCH(F2,\$F\$2:\$F\$1000,0)), E2)

E	F	S
country	language	Country Corrected
Italy	Italian	Italy
Australia	English	Australia
Germany	German	Germany
Australia	English	Australia
Germany	German	Germany
Netherlands	Dutch	Netherlands
Indonesia	Indonesian	Indonesia
Italy	Italian	Italy
US	English	US
Turkey	Turkish	Turkey
UK	English	UK
Argentina	Spanish	Argentina
UK	English	UK
	Spanish	Argentina
Germany	German	Germany
Japan	Japanese	Japan
Australia	English	Australia
India	Hindi	India

missing value

4. Primary Skill Column Cleaning

In the Primary skill column, some values were missing. Since it is a categorical variable, missing values were handled using COUNTIF, MAX, INDEX and MATCH to find mode and also IF function use to fill it

=IF(G3="", (INDEX(\$G\$2:\$G\$1000, MATCH(MAX(COUNTIF(\$G\$2:\$G\$1000, \$G\$2:\$G\$1000)), COUNTIF(\$G\$2:\$G\$1000, \$G\$2:\$G\$1000), 0))), G3)

Primary Skill	Primary Skill Corrected
Blockchain Development	Blockchain Development
Mobile Apps	Mobile Apps
Graphic Design	Graphic Design
Web Development	Web Development
	DevOps
AI	AI
Data Analysis	Data Analysis
Blockchain Development	Blockchain Development
Blockchain Development	Blockchain Development
AI	AI
Data Analysis	Data Analysis
UI/UX Design	UI/UX Design
Cybersecurity	Cybersecurity
Graphic Design	Graphic Design
Data Analysis	Data Analysis
	DevOps
DevOps	DevOps
Blockchain Development	Blockchain Development
UI/UX Design	UI/UX Design
Web Development	Web Development
AI	AI
DevOps	DevOps
Cybersecurity	Cybersecurity
Machine Learning	Machine Learning
Machine Learning	Machine Learning
DevOps	DevOps
Blockchain Development	Blockchain Development
Graphic Design	Graphic Design
AI	AI
Data Analysis	Data Analysis
DevOps	DevOps
Machine Learning	Machine Learning
AI	AI
AI	AI
Web Development	Web Development
	DevOps
Mobile Apps	Mobile Apps
Graphic Design	Graphic Design

Blanks are filled with 'DevOps'

5. Year Of Experience Column Cleaning

In the Year of Experience column, some values were missing. Since it is a Numerical data, missing values were handled using AVERAGE function and also IF function use to fill it.

years_of_experience		Year of experience Corrected
11	=IF(H2="",AVERAGE(\$H\$2:\$H\$1001),H2)	11
34		34
31		31
4		4
27		27
14		14
10		10
14		14
4		4
22		22
17		17
15		15
18		18
20		20
22		22
0		0
13		13
		11
31		31
3		3
9		9
		11
21		21
15		15
13		13

6. Hourly Rate Column Cleaning

In the Hourly Rate column, some values were missing and also that data is inconsistent like 100, USD100, \$40,... So first I remove the USD and Dollar symbol by using VALUE and SUBSTITUTE Function. Then from that I found the AVERAGE and use IF to fill.

hourly_rate (USD)		Hourly Rate (USD) remove usd		Hourly Rate (USD) Corrected
100		100		100
USD 100		100		100
50		50		50
\$40		40		40
30		30		30
\$30		30		30
USD 75		75		75
USD 40		40		40
\$50		50		52
40		40		50
				40
USD 75		75		52
75		75		75
\$30		30		75
\$30		30		30
USD 50		50		52
USD 100		100		50
50		50		100
				50
USD 30		30		52
\$50		50		30
75		75		50
USD 30		30		75
\$20		20		30
				20
30		30		52
USD 75		75		30
				75
USD 100		100		52
20		20		100
40		40		20
75		75		40
\$20		20		75
40		40		20
40		40		40

7. Rating Column Cleaning

In Rating column some data are missing, so I take average for the age column and I fill the Missing areas with that average. I use if formula to fill the missed area with average.

rating	Rating Corrected
	2.5
3.3	3.3
0	0.0
1.5	1.5
4.8	4.8
2.4	2.4
3.1	3.1
4.6	4.6
4	4.0
	2.5
3.6	3.6
	2.5
2	2.0
2.9	2.9
3.7	3.7
1.2	1.2
2.5	2.5
	2.5
1.1	1.1
1.8	1.8
1.8	1.8
2.4	2.4
4.7	4.7
1.3	1.3
2.9	2.9
1.2	1.2
0	0.0
1.8	1.8
1.3	1.3
1.2	1.2
1	1.0
4.2	4.2
1.4	1.4
2.4	2.4
1	1.0
	2.5
	2.5
2.2	2.2

Average= 2.5

8. In Active Column Cleaning

In In Active column some data are missing and also inconsistent. So I change to correct format Yes or No by Find and replace and I use INDEX, MATCH, MAX, COUNTIF Function to find mode and use IF Function to fill in Empty area.

Raw Data

is_active
0
1
N
N
0
FALSE
0
FALSE
TRUE
1
yes
Y
0
1
1
0
FALSE
N
yes
FALSE
N
N
1
1
TRUE
Y
0
0
yes
N
TRUE
yes
yes
0
0
N

Find and Replace

Find what: 0
Replace with: No
Within: Sheet
Search: By Rows
Look in: Formulas
Match case: ☐
Match entire cell contents: ☐

is_active

is_active
No
Yes
No
No
No
No
No
No
No
Yes
Yes
Yes
Yes
No
Yes
Yes
No
No
No
No
No
Yes
No
No
No
No
Yes
No
No
No
No
Yes
Yes
Yes
Yes
No
No
Yes
No
No
No
No
No
No

In Active Corrected

In Active Corrected
No
Yes
No
No
No
No
No
No
No
Yes
Yes
Yes
Yes
Yes
No
Yes
No
No
No
No
No
Yes
No
No
Yes
Yes
Yes
Yes
No
No
Yes
No
No
No
No

Changed Using Find and Replace

Find and Replace

Find what: Y
Replace with: Yes
Within: Sheet
Search: By Rows
Look in: Formulas
Match case: ☐
Match entire cell contents: ☒

is_active

is_active
No
Yes
No
No
No
No
No
No
No
Yes
Yes
Yes
Yes
No
Yes
Yes
No
No
No
No
No
Yes
No
No
No
No
Yes
Yes
Yes
Yes
No
No
Yes
No
No
No
No

Cleaned Data

Formula:

$$=IF(K2="", (INDEX(K2:K1001, MATCH(MAX(COUNTIF(K2:K1001,K2:K1001), COUNTIF(K2:K1001,K2:K1001),0))), K2)$$

9. Client Satisfaction Column Cleaning

In Client Satisfaction column some data are missing and also inconsistent and have more range. So I find Median and also use IF function for two propose one for Fill the missing data, then the other one is Divided by 100 when number is greater than 1 because the data type of the column is Percentage.

client_satisfaction	Client Satisfaction / 100
84%	82%
71%	84%
90%	71%
83%	90%
	83%
94%	82%
94%	94%
76%	94%
	76%
77%	82%
86%	77%
86%	86%
93%	86%
70%	93%
69%	70%
60%	69%
87%	60%
75%	87%
68%	75%
65%	68%
69%	65%
	69%
100%	82%
92	100%
70%	92%
89%	70%
86%	89%
62%	86%
	62%
	82%
68%	82%
76%	68%
82	76%
81%	82%
	81%
63%	82%
67%	63%
	67%

Then I use VLOOKUP Function to assign all cleaned data into one

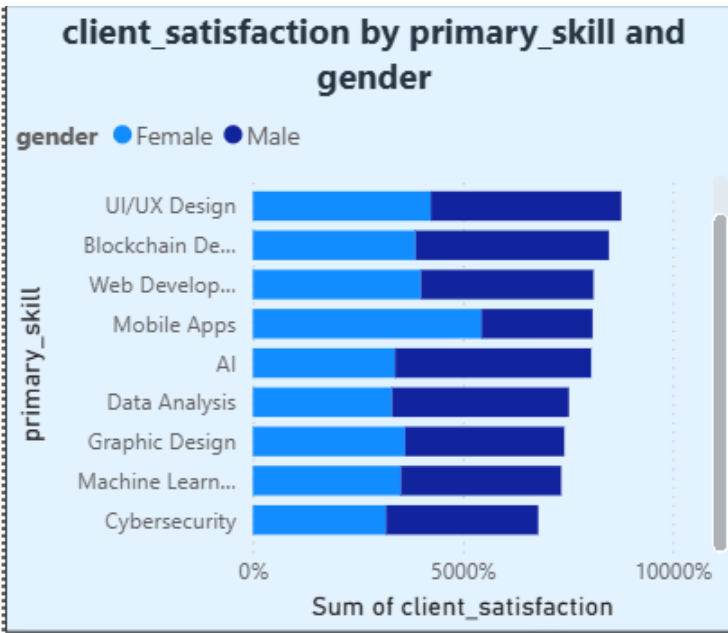
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
	freelancer_id	name	gender	age	country	language	primary_skill	years_of_experience	hourly_rate_USD	rating	is_active	client_satisfaction	Notes	Status	no_of_projects	duration_months	
1	FL250001	Ms. Nicole Kidd	Female	52	Italy	Italian	Blockchain Development	11	\$	100	2.5	No	82%	Reviewed	On Hold	13	6
2	FL250002	Vanessa Garcia	Female	52	Australia	English	Mobile Apps	34	\$	100	3.3	Yes	84%	Reviewed	Completed	10	7
4	FL250003	Juan Nelson	Male	53	Germany	German	Graphic Design	31	\$	50	0.0	No	71%	Reviewed	Active	16	16
5	FL250004	Amanda Spencer	Female	38	Australia	English	Web Development	4	\$	40	1.5	No	90%	Reviewed	Completed	5	1
6	FL250005	Lynn Curtis DDS	Female	53	Germany	German	DevOps	27	\$	30	4.8	No	83%	Reviewed	On Hold	13	3
7	FL250006	Lisa Johnson	Female	59	Netherlands	Dutch	AI	14	\$	30	2.4	No	82%	Urgent	Active	8	3
8	FL250007	Eric Myers	Male	52	Indonesia	Indonesian	Data Analysis	10	\$	75	3.1	No	94%	Reviewed	On Hold	10	3
9	FL250008	Ricky Graham	Male	43	Italy	Italian	Blockchain Development	14	\$	40	4.6	No	94%	Urgent	On Hold	7	10
10	FL250009	Sean Martin	Male	26	US	English	Blockchain Development	4	\$	52	4.0	Yes	76%	Reviewed	Inactive	2	4
11	FL250010	Matthew Lloyd	Male	52	Turkey	Turkish	AI	22	\$	50	2.5	Yes	82%	Pending	Active	16	5
12	FL250011	Gavin Randall	Male	40	UK	English	Data Analysis	17	\$	40	3.6	Yes	77%	Follow-up	Inactive	20	5
13	FL250012	Michelle Curtis	Female	55	Argentina	Spanish	UI/UX Design	15	\$	52	2.5	Yes	86%	Urgent	Active	13	4
14	FL250013	Alice Schneider	Female	57	UK	English	Cybersecurity	18	\$	52	2.0	No	86%	Reviewed	On Hold	16	15
15	FL250014	Phillip Shelton	Male	38	Argentina	Spanish	Graphic Design	20	\$	75	2.9	Yes	93%	Pending	On Hold	17	12
16	FL250015	Edward Ferguson	Male	50	Germany	German	Data Analysis	22	\$	75	3.7	Yes	70%	Follow-up	Completed	14	6
17	FL250016	Wyatt Stout	Male	42	Japan	Japanese	DevOps	0	\$	30	1.2	No	69%	Urgent	Active	5	2
18	FL250017	Laura Johnson	Female	39	Australia	English	DevOps	13	\$	30	2.5	No	60%	Follow-up	Inactive	7	1
19	FL250018	Scott Burns	Male	56	India	Hindi	Blockchain Development	11	\$	52	2.5	No	87%	Pending	Completed	1	2
20	FL250019	Tyler Aguirre	Male	56	US	English	UI/UX Design	31	\$	50	1.1	No	75%	Urgent	Completed	13	3
21	FL250020	Matthew Lawson	Male	57	Italy	Italian	Web Development	3	\$	100	1.8	Yes	68%	Follow-up	Completed	1	1
22	FL250021	James Cherry	Male	41	Indonesia	Indonesian	AI	9	\$	50	1.8	No	65%	Reviewed	Inactive	15	6
23	FL250022	Samuel Sanford	Male	51	Japan	Japanese	DevOps	11	\$	52	2.4	No	69%	Urgent	Completed	3	5
24	FL250023	Cesar Greene	Male	51	Brazil	Portuguese	Cybersecurity	21	\$	30	4.7	No	82%	Follow-up	Inactive	14	2
25	FL250024	Melanie Carter	Female	51	South Korea	Korean	Machine Learning	15	\$	50	1.3	Yes	100%	Pending	Completed	9	3
26	FL250025	Jennifer Martin	Female	54	Indonesia	Indonesian	Machine Learning	13	\$	75	2.9	No	92%	Pending	Inactive	15	3
27	FL250026	Anna Mccann	Female	22	South Korea	Korean	DevOps	0	\$	30	1.2	Yes	70%	Urgent	On Hold	5	2
28	FL250027	Marissa Bass	Female	34	Japan	Japanese	Blockchain Development	8	\$	20	0.0	Yes	89%	Follow-up	On Hold	6	1
29	FL250028	Alexis Day	Female	36	Russia	Russian	Graphic Design	11	\$	52	1.8	Yes	86%	Urgent	On Hold	12	4
30	FL250029	Megan Jones	Female	47	Canada	English	AI	22	\$	30	1.3	No	62%	Urgent	On Hold	14	2
31	FL250030	Lori Smith	Female	41	Netherlands	Dutch	Data Analysis	14	\$	75	1.2	No	82%	Follow-up	On Hold	6	5
32	FL250031	Eric Carpenter	Male	22	Netherlands	Dutch	DevOps	4	\$	52	1.0	Yes	82%	Follow-up	Completed	3	1
33	FL250032	Timothy Daniels	Male	38	France	French	Machine Learning	19	\$	100	4.2	No	68%	Reviewed	Completed	10	10
34	FL250033	Robert Nelson	Male	46	Egypt	Arabic	AI	9	\$	20	1.4	Yes	76%	Follow-up	Completed	13	6
35	FL250034	Michael Anderson	Male	41	South Korea	Korean	AI	9	\$	40	2.4	Yes	82%	Pending	Inactive	15	3
36	FL250035	Jessica Snyder	Female	54	US	English	Web Development	32	\$	75	1.0	Yes	81%	Urgent	Inactive	18	10
37	FL250036	Emily Daniels	Female	52	South Korea	Korean	DevOps	28	\$	20	2.5	No	82%	Urgent	Inactive	18	2
38	FL250037	Jamie Ramirez	Female	42	Japan	Japanese	Mobile Apps	6	\$	40	2.5	No	63%	Pending	Inactive	15	6
39	FL250038	Amy Harrison	Female	29	Netherlands	Dutch	Graphic Design	10	\$	40	2.2	No	67%	Follow-up	On Hold	10	9

DATA VISUALIZATION

I use Power BI to viualize the data and to Create meaningful Dashboard

Client Satisfaction by Primary Skill and Gender

I created Stacked Bar Chat to show the Client Satisfaction by Primary Skill and Gender.



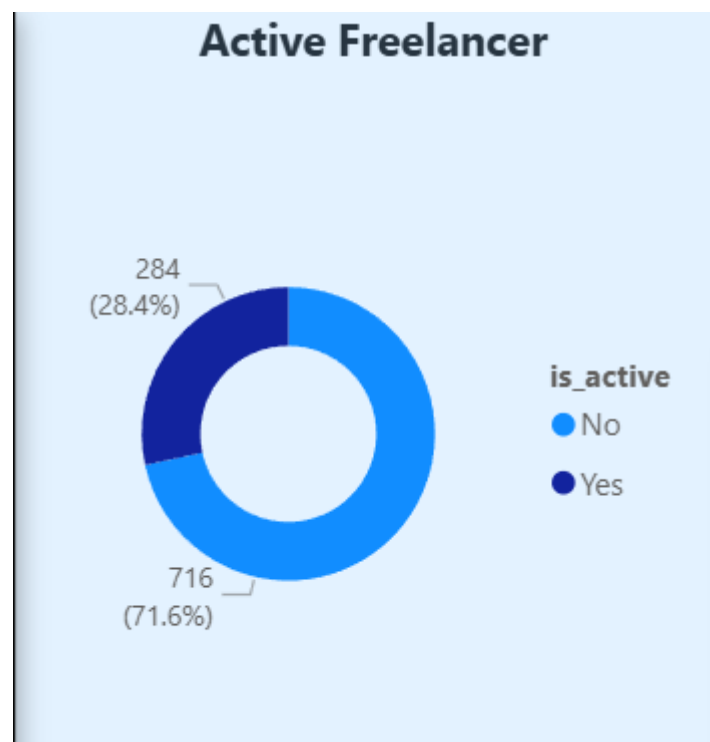
Total Freelancers

I created Card to show the total number of Freelancers.



Active Freelancer

I created Donut Chart to show How many freelancer is active and in active.



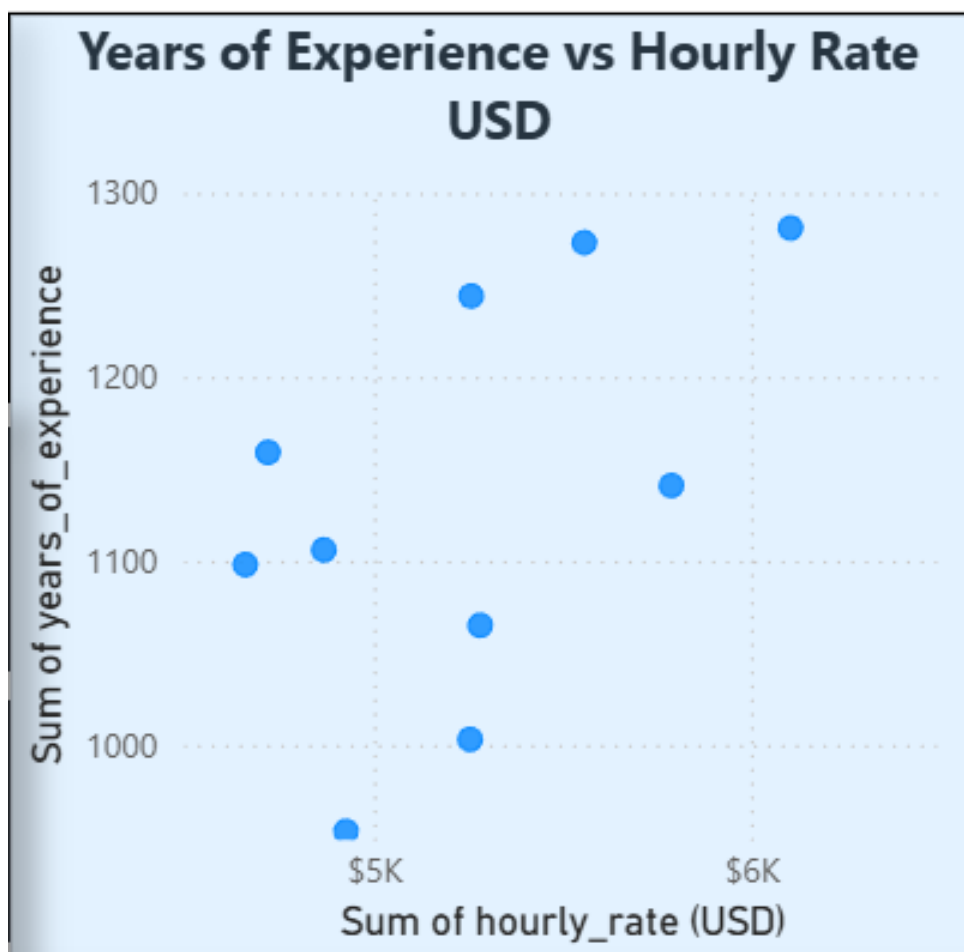
Average Hourly Rate by Client Satisfaction

I created KPI to show the Average Hourly rate USD by Client Satisfaction



Years of Experience vs Hourly Rate USD

I created Scatter Chart to show the Years of Experience and Hourly Rate USD



Hourly Rate USD by Country

I created Stacked Column Chart to show the Average of hourly rate by Country.



Freelancer by Country

I created Map to show the country of the freelancers



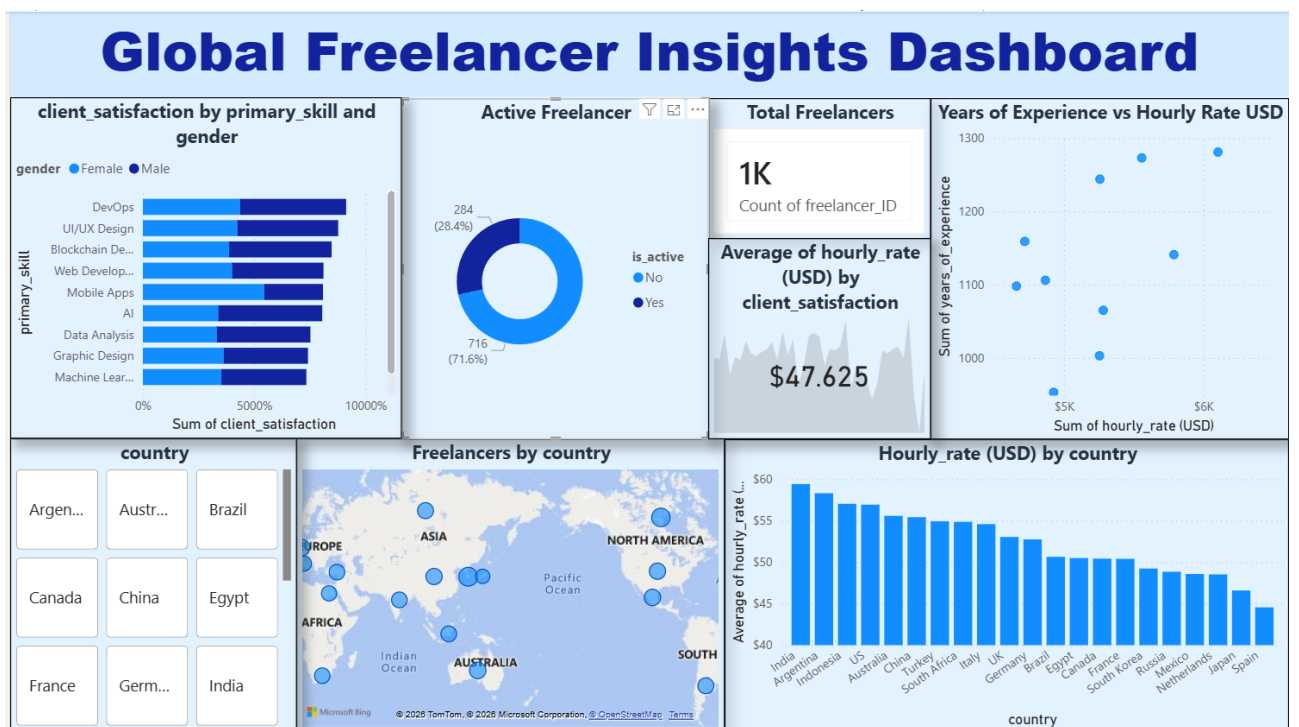
Country Slicer

I created Slicer for country to see specific country's analysis



Dashboard

I created a dashboard of Global Freelancer Insights Dashboard containing all charts I previously created



Key Insights from Global Freelancer Insights Dashboard

1) Freelancer Overview

- The dataset contains approximately **1,000 freelancers globally**.
- Around **71.6% of freelancers are active**, while **28.4% are inactive**,
- This shows high engagement and availability of freelancers in the global market.

2) Hourly Rate Analysis by Country

- **India, Argentina, and Indonesia** show higher average hourly rates compared to others.
- Countries like **Spain and Japan** have lower average hourly rates.
- This tells that hourly rate varies depending on Country

3) Experience vs Hourly Rate Relationship

- Freelancers with more experience earn higher hourly rates.
- This tells that experience is a key to freelancer earnings.

4) Client Satisfaction by Skill and Gender

- **DevOps, UI/UX Design, and Blockchain Development** show higher overall client satisfaction.
- Both male and female freelancers demonstrate comparable satisfaction levels across most skills.

5) Country by Freelancers

- Freelancers are in across multiple regions including **North America, Europe, Asia, and Australia**.
- The highest freelancers appears in **Asia and North America**.

6) Average Hourly Rate by Client Satisfaction

- The overall **average hourly rate is \$47.63 per hour.**

Conclusion

The freelance work is highly active and globally distributed. Experience impacts hourly earnings. Client satisfaction remains consistently high across skills and genders. Location influences freelancer earnings.

Thankyou