Power BI Project Report

Project Objective.

To analyze Wuzzuf job postings mainly using Power BI and Excel in the beginning, derive insights from the data, and build an interactive and consistent dashboard with key performance indicators, visualizations, and user interaction tracking.

Phase 1: Data Preparation.

- Datasets Used:
- Wuzzuf_Jobs_Posting.csv
- Steps Taken:
- 1. Imported the dataset into Power BI Desktop.
- 2. Cleaned and transformed columns using Power Query:
- Removed blanked columns.
- Replaced values like ([] to empty spaces)
- Standardized text casing.
- Into a new table split column (Job Skills) by delimiter
- Filter and remove column to clean the data such as Pay Rate, Minimum Pay, and Maximum Pay.
- After removing blanks from Pay Rate, NULL values in pay columns were automatically cleaned.

Phase 2 – Modeling & Measures Report.

1. Loading Data

- The main Job Postings table was loaded into Power BI from an Excel file.
- The option "Only Create Connection + Add to Data Model" was selected during loading.

2. Relationships & Data Modeling.

- A separate Skills table was created by using 'Split by Delimiter' on the SKILLS column in excel.
- The Skills table was linked to the main Job Postings table using Job Posting ID as a unique key.

- The Job Location column was cleaned, and any non-specific values (e.g., 'United States') were changed to 'Not Specified'.
- A separate table for City and State was created and linked to the main table.
- -Created a table location after split it into state & city and handled unknown location values by converting them to 'Not Specified' for easier analysis.
- -Created a table Remote Job Posting for Remote jobs only.
- -Added necessary columns like Year, Month Name.
- Change some duplicate names with (! or)) without any meaning to the same name to reduce the missing and make the data clear .

4. Measures Created.

Total Postings:

```
Total Postings = COUNTROWS('wuzzuf_jobs_posting)
```

• Average Experience:

```
Average Experience = AVERAGE('wuzzuf_jobs_posting [Years of Experience])
```

• % Remote Jobs:

```
Remote Jobs % =

DIVIDE(

CALCULATE(

COUNTROWS('wuzzuf_jobs_posting'),

SEARCH("Remote", ''wuzzuf_jobs_posting '[Job Location], 1, 0) > 0

),

COUNTROWS('wuzzuf_jobs_posting')
)
```

% On-Site Jobs:

```
On-Site Jobs % = 1 - [Remote Jobs %]
```

5. Notes

- All relationships between tables were created manually to ensure data integrity.
- Data validation was done after cleaning and joining tables.
- DAX measures were tested using Card Visuals.

Phase 3: Dashboard Visuals.

- Main Visualizations:
- 1. Map: Bubble size represents the number of job postings per city & state.
- 2. Line & Column Chart: Trend of job postings over months & years.
- X-axis: Months Names & years
- Y-axis: Total Postings
- 3. Pie Chart: Distribution by Job Position Type.
- Labels adjusted to show all segments.
- 4. Card Visuals: KPIs like Total Postings, On site jobs and Remote jobs percentages.
- 5. Slicers: Filtering by Work Mode, career level, and Job Position date.
- 6- Column chart represent job posting by job title & company industry.
- 7- Clustered Column chart represent number of companies name by company size.
- 8- Bar chart represent number of jobs for each company
- 9- Bar chart represent number of jobs posting by skills.

Phase 4: Dashboard Design.

Color Scheme:

- Based on Wuzzuf branding: Blue tones with white and grey backgrounds.
- Layout & Structure:
- At top slicers to filters with bookmark to open and close the filter and navigations to make it easier to go and return between the to pages.
- cards in the beginning, charts below.
- Grid-based layout for alignment.

Phase 5: Dashboard Evaluation.

- With a manually table for interaction Tracking:
- Tracked 3 users' clicks, filters, drill-downs.
- Measured:
- TotalInteractions = COUNT(User Actions)

- SessionDurationMinutes = DATEDIFF(FirstInteraction, LastInteraction, MINUTE)
- ActionsPerMinute = DIVIDE(TotalInteractions, SessionDurationMinutes)
- Note: Captured manually or simulated.

Phase 6: Publishing .

- Dashboard published to Power BI Service and shared.

Live Data Sync Issue:

- Issue: Scheduled refresh failed due to missing credentials so I just published to Power BI Service and shared the link below.

(https://app.powerbi.com/view?r=eyJrIjoiZmIxM2FhZmItZTRiYi00MWVkLWI1YTktMDBhMmRlYW U4N2UwIiwidCI6IjZhYzIzMzM3LWI4ZDYtNDJkZC04ZWQ5LWY5YmJmZjE5ZjQ2YSJ9)

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