LinkedIn Job Trend Analysis (Web Scraping)

Objective:

To scrape job postings from LinkedIn and analyze skill demand trends across different cities and job roles, helping identify the most in-demand skills by location.

Tools Used:

- **Python**: Main programming language
- **BeautifulSoup**: For HTML parsing and web scraping
- **Pandas**: For data manipulation and analysis
- **Power BI**: For Reporting and Creating Dashboards.

Steps Involved in Building the Project:

1. **Web Scraping**
    - Used requests and BeautifulSoup to scrape job listings from LinkedIn.
    - Parsed data fields like **Job ID**, **Title**, **Company**, **Location**.
2. **Data Cleaning**
    - Handled null values in State and City columns.
    - Replaced inconsistent city names (e.g., Bangalore Urban → Bengaluru).
    - Removed entries with vague locations (e.g., only “India”).

- Standardized job titles (e.g., removed suffixes like ", Mumbai").

3. **Feature Engineering**
    - Created new columns: City, State, Country.
    - Filled missing state data based on city mappings.
4. **Exploratory Data Analysis**
    - Counted job titles by frequency.
    - Filtered by region (Bengaluru).
    - Generated **pie charts** for top job demand in Bengaluru.
5. **Insights & Recommendations**
    - Identified most demanded roles: Executive Assistant, Product Manager, etc.
    - Mapped roles to career tracks (e.g., Business, Tech, HR).
    - Recommended skills/tools per job type.

Conclusion:

This project successfully showcased how **job market trends** can be analyzed using real-world data. Through web scraping and data analysis, we extracted actionable insights from LinkedIn postings to support job seekers and HR professionals in understanding demand.

Key takeaways:

- Bengaluru is a major hub for roles in business, analytics, and tech.
- Standardizing data is crucial for accurate regional and job-wise analysis.
- Visualizing demand helps align career paths with market needs.