PROJECT REPORT ON

Lead Generation Scraper - Caprae Capital Challenge

Problem Understanding:-

The goal is to build a simplified lead generation tool that extracts relevant business leads (e.g., restaurants) from Google Maps using a location and keyword. This supports sales teams by surfacing potential leads with names, addresses, and phone numbers.

Approach & Tech Stack:-

- Language:- Python
- Web Automation:- Selenium (ChromeDriver)
- Web Framework:- Flask (for user interface)
- Frontend:- HTML + Bootstrap + Dark Mode toggle
- Deployment Ready:- Localhost/Browser Based

Functionality:-

- Users input a business type and location.
- App scrapes Google Maps for business names, addresses, and phone numbers.
- Results are shown interactively on a webpage.
- Future support planned: Export to CSV / integration with CRM.

Data Preprocessing:-

- Used Selenium to identify and extract structured data from Google Maps.
- Implemented waits and retries to avoid overloading or bot detection.
- Applied basic deduplication and formatting for clean display.

Evaluation:-

- Successfully extracts 10–20 leads per search.
- UX is simple, responsive, and user-friendly.
- Built-in dark mode improves user comfort.
- Error handling is included for better reliability.

Model/Citation:-

No ML model was used — this is a rule-based scraper tailored for real-time use.

Conclusion:-

This project successfully demonstrates how automation and web scraping can be leveraged for effective lead generation. By combining **Python**, **Selenium**, and **Flask**, a user-friendly interface was created to extract business data dynamically from Google Maps. The app empowers users to generate leads in real time with minimal input, showcasing a practical use case for data-driven business solutions.