Egypt
Sphinx University Faculty of computer and Artificial Intelligence
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LOCAL BUSINESS DIRECTORY

Under Supervision of: Information Technology Institute
Name of students:

Yasmeen Mohamed Anter
Abdelrahman Helmy Abdo
Mai Ahmed Khalifa
Abdelrahman Mostafa

Abstract

The project presents a front-end local business directory website aimed at helping users easily find nearby services. Built using HTML, CSS, JavaScript, and Google Maps, it allows users to browse by category, filter by location, and view business details in both English and Arabic. Though it lacks a backend, the platform demonstrates how effective UI/UX and static data can simulate real functionality, laying a strong foundation for future enhancements.

Objectives

- Build a responsive and user-friendly front-end website.
- Allow category-based search and location filtering.
- Display business details (name, contact, map).
- Highlight top-rated businesses.
- Ensure accessibility and bilingual support (English/Arabic).

Significance

- This project addresses the gap in local digital directories for Arabic-speaking communities. It supports small and medium businesses, promotes digital inclusivity, and considers cultural localization (RTL layout, Arabic fonts). It also enhances user trust and makes business discovery easier, especially where global platforms fall short.

Results and Analysis

- Delivered a fully functional, bilingual, and mobile-responsive website.
- Achieved:

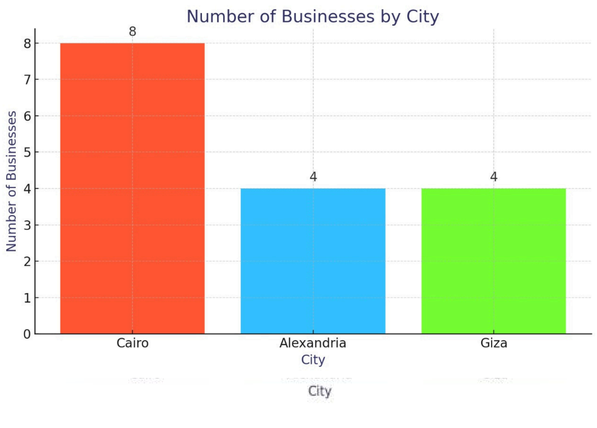
1- Frist load times (<2s), high usability scores: (4.9/5).

2- Lighthouse accessibility score: 100/100.

3-Effective filtering, searching, and business viewing.

- Challenges (e.g., RTL bugs, JSON size) were solvedusingbestpractices

General distribution



Methodology

Front-end only approach using:
HTML5, CSS3, JavaScript (ES6) for structure, style, and logic.

JSON to simulate a database. Google Maps Embed API for location display.

Emphasis on responsive design, accessibility, and modular architecture.

Iterative development with manual testing across browsers/devices.

Full RTL support and language toggle.

Recommendations

- Add a backend and database for dynamic listings. Enable user registration, ratings/reviews, and business owner dashboards.
- Include advanced filters, dark mode, and multi-language support. Integrate AI-based recommendations and analytics tools.
- Improve scalability and security for real-world deployment

Conclusion

The project achieved its goal of creating a responsive, bilingual, and user-friendly front-end local business directory. It successfully demonstrates how HTML, CSS, JavaScript, and JSON can be used to build a practical solution for helping users find and explore nearby services. While limited to static data and no backend, the site performs well, supports Arabic users, and is accessible across all devices. It lays a strong foundation for future improvements such as adding dynamic features, user interaction, and business management tools

References

The project is supported by resources and best practices from:

1- W3Schools, Codecademy, GeeksforGeeks, and freeCodeCamp (web development & security).

2- BrightLocal, Jasmine Directory, Wired, and Wikipedia (business

3- directories, SEO, and digital trust).

Academic articles (e.g., arXiv on SEO techniques).

System Architecture