**Project: Business Community Directory - BCD**

**Purpose**

The **Business Community Directory** project aims to connect users with local businesses by providing a platform for discovering, reviewing, and rating various services and products available in their area. This helps users support local enterprises while giving businesses visibility in their community.

**Key Features**

1. **Business Listings**
   * Businesses can create and manage profiles, including contact details, operating hours, and photos.
2. **Search Functionality**
   * Users can search for businesses by name, category, location, or keyword with filtering options.
3. **User Reviews and Ratings**
   * Users can leave reviews and ratings for businesses, with a moderation system for appropriateness.
4. **Interactive Map**
   * Integrate a map to display business locations, allowing users to click on markers for details.
5. **User Accounts**
   * Users can create accounts to manage their reviews, save favorites, and receive recommendations.
6. **Admin Dashboard**
   * Admins can manage business listings, moderate reviews, and generate reports.

**Technologies**

* **Front-End**:
  + **React**:
    - **React**: A library for building user interfaces with a component-based architecture, offering flexibility and efficiency.
* **Back-End:**
  + **.NET Web API Core:**
  + Use ASP.NET Core Web API for creating RESTful endpoints, replacing Node.js and Express.
  + ASP.NET Core provides robust API-building features, middleware integration, and dependency injection for efficient development and scaling.
* **Database:**
* **PostgreSQL:** Remains as the chosen database; the .NET ecosystem supports PostgreSQL well through Entity Framework Core or Npgsql.

**Development Steps**

1. **Set Up the Development Environment**
   * Install **.NET Core SDK**, Angular CLI/React tools, and PostgreSQL.
   * Set up version control with Git.
2. **Design Database Schema**
   * Create tables for Users, Businesses, Reviews, and Categories.
3. **Build the Back-End**
   * Set up Express to handle API routes for business listings, user management, and reviews.
   * Use **Entity Framework Core** or **Dapper** to manage database operations, replacing Sequelize or Knex.js.
4. **Develop the Front-End**
   * Use React to create components for searching, viewing business details, and submitting reviews.
   * Implement the interactive map using libraries like Leaflet or Google Maps API.
5. **Testing**
   * Write unit tests and conduct user acceptance testing to ensure all functionalities work as intended.
6. **Deployment**
   * Deploy the back-end on a cloud platform (e.g., Heroku, AWS).
   * Use services like Netlify or Vercel for deploying the front-end.

**Potential Enhancements**

* **Mobile Responsiveness**: Ensure the application is fully responsive for mobile users.
* **Real-time Notifications**: Implement WebSocket for real-time updates on new reviews or business listings.
* **Analytics Dashboard**: Provide businesses with insights on user engagement and reviews.

This project not only leverages popular and powerful technologies but also addresses a community need, making it a valuable learning experience.

What are the specific goals and requirements of your project?

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