Project: .NET C# Skills Page for Portfolio Website

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Project Overview

System Components

1. **Relational Database**
    - Purpose: Store and manage data about skills, projects, skill types, and their relationships.
    - Technology: Could be SQL Server, MySQL, PostgreSQL, etc.
    - Entities: Skill, Project, SkillType, ProjectSkill, SkillTypeSkill, SkillTypeProject, ExperienceType, SkillExperienceType.
2. **Backend**
    - Purpose: Handle data processing, business logic, and communication between the database and the frontend.
    - Technology: .NET Core or .NET 5/6 with C#.
    - Responsibilities:
        - CRUD operations (Create, Read, Update, Delete) for skills, projects, and other entities.
        - Implementing filtering logic based on user selections.
        - Serving data to the frontend via APIs.
3. **Frontend**
    - Purpose: Provide a user interface for interacting with the system.
    - Technology: HTML, CSS, JavaScript, and possibly a framework like React, Angular, or Vue.js.
    - Responsibilities:
        - Displaying skills, projects, and other data.
        - Allowing users to filter skills based on criteria like skill type, experience type, etc.
        - Sending user requests to the backend and displaying the results.

System Workflow

1. User Interaction: Users interact with the frontend to view and filter skills.
2. Request Handling: The frontend sends requests to the backend to fetch filtered data.
3. Data Processing: The backend processes these requests, applies the necessary filtering logic, and retrieves data from the database.
4. Data Presentation: The backend sends the filtered data back to the frontend, which then displays it to the user.

Example Use Case

1. User Filters Skills: A user selects "Front-End" from a dropdown menu to filter skills.
2. Frontend Request: The frontend sends a request to the backend API to fetch skills with the "Front-End" skill type.
3. Backend Processing: The backend queries the database for skills with the "Front-End" skill type and retrieves the relevant data.
4. Data Display: The frontend receives the filtered data and displays the list of front-end skills to the user.

Benefits of Your System

- Organized Data Management: Efficiently store and manage information about skills, projects, and their relationships.
- User-Friendly Interface: Provide an intuitive interface for users to view and filter skills.
- Scalability: Easily add new skills, projects, and filtering criteria as needed.
- Professional Presentation: Showcase your skills and projects in a structured and professional manner.