Project: .NET C# Skills Page for Portfolio Website

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Conceptual Data Model

Entities

.   Skill - this is the main entity that will be on display for the user.

    i.   SkillID (primary key)

- Unique id for skill.

    ii.   SkillName

- Name of the skill.

    iii.   Icon (PNG/JPEG)

- Visual icon of skill.

    iv.   YearsOfExperience

- Number of years of experience.

    v.   ExperienceType

- A type of experience that describes the level of experience.

a.   Project - this is secondary entity that will also be on display for the user.

    i.   ProjectID (primary key)

- Unique id for project.

    ii.   ProjectName

- The name of the project.

    iii.   Description

- A detailed description of the project that includes what the main system, application or website's purpose was and what you achieved in the project. Tie your skills into this description

    iv.   StartDate

- A date of approximate start time of project.

    v.   EndDate

- A date of approximate end time of project.

b. SkillType - this will define the skill's type for better filtering experience for example, if the user wants to see all front-end skills, or all back-end skills.

    i. SkillTypeId (primary key)

- Unique id for skill type.

    ii. SkillTypeName

- The name of the skill type.

c. ProjectSkill (Associative Entity) - this links the project and skills together with these attributes.

    i. ProjectSkillID (primary key)

- Unique id for Project and Skill relationship.

    ii. ProjectID (foreign key)

- The unique id from the Project entity.

    iii. SKillID (foreign key)

- The unique id from the Skill entity.

d. SkillTypeSkill (Associative Entity) - this links the skill and skill type entities together with these attributes.

    i. SkillTypeSkillID (primary key)

- Unique id for skill type and skill relationship.

    ii. SkillID (foreign key)

    iii. The unique id from the Skill entity.

    iv. SkillTypeID (foreign key)

    v. The unique id from the SkillType entity.

e. SkillTypeProject (Associative Entity) - this links the Project and SkillType entities together with these attributes.

    i. ProjectSkillType (primary key)

- Unique id for project and skill type relationship.

    ii. ProjectID (foreign key)

- Unique id from Project entity.

    iii. SkillTypeID (foreign key)

- Unique id from SkillType entity.

Additional Entity

f. ExperienceType – this will define the experience type for better filtering experience for example, if the user wants to see all experience types as a professional, personal or college experience.
   i. ExperienceTypeID (primary key)

      - Unique id for an ExperienceType.

   ii. ExperienceTypeName
g. SkillExperienceType (Associative Entity) – this links the skill and experience type entities together with these attributes.
   i. SkillExperienceTypeID (primary key)
      - Unique id for skill and experience relationship.
   ii. SkillID (foreign key)
      - Unique id from Skill entity.
   iii. ExperienceTypeID (foreign key)
      - Unique id from ExperienceType entity.

Relationships

h. Skill -> Project entity - one project can be related to many skills one to many relationship and one skill that can be related to many projects. (many to many)

i. Skill -> SkillType entity - one skill can relate to one skilltype and one skilltype can relate to many skills.

j. Project -> SkillType - one project can be related to many skillTypes and one SkillType can be related to many projects.

k. Skill-> ExperienceType – once skill can have many experience types, and one experience type can multiple skills.