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Summary

My project is to create a database that supports creating and updating user profiles for the purpose of displaying their professional experience. At its core, the database will store basic personal information about a person such as their name and email. Additionally, the database will branch out to include information about their past educations, work experiences, and personal projects. The purpose of the database will be to serve as the back end for any potential application that aims to use data relating to careers and professional development.

The primary way this database features Redis and its memory key value storage system is by presenting people's names and their respective emails.

This product will be aimed primarily at university students and new grads who can highlight a notable past projects and past career experiences into a short profile. Applications built from this database could be useful in terms of succinctly displaying relevant information in an online resume or digital portfolio of sorts, helping users display themselves professionally. This could, in turn, also be useful for employers who are searching for specific skills or schools since such attributes will have already been defined as primary keys in their own tables.

Problem requirements: What logical restrictions must be obeyed to ensure that the database integrity is kept?

Requirement One: Important personal information cannot be Null. This includes name and email. About me must be under four hundred letters, with the intention of keeping it roughly under one hundred words.

Requirement Two: All Work Experience must have a role, company, length in number of years, and description.

Requirement Four: All Education must have an Institution name, GPA, and major. Minor is optional since not every degree includes one.

Requirement Five: Each project must have a title and brief description.

Requirement Six: A user can have zero or multiple work experiences, skills, projects, and educations. Each person may have multiple skills and each skill may be possessed by more than one person.

Business Rules: What functionalities should the database have and what is the desired user experience?

Business Rule One: Users should be able to add, remove, and update data about themselves.

Business Rule Two: Users will have freedom in filling out attribute values since there are few logical restrictions we can place on personal information. Most attributes will be varchar (40).

Business Rule Three: Everybody should be able to view information on all other profiles. This can include both users and non-users such as prospective employers.

Action words:

Action nouns: Person, Education, Skills, Employment/Work Experience, Projects, Company

Action verbs: Associated, Possess, Worked At, Created, Studied At