

CS5200

Randy Lirano

Project 3: Application Manager

08/19/2021

Company Application Management

I. Project Requirements

This is an application management for a single company called JobHunt. JobHunt could post more than one position. Each posting should have a brief description, minimum qualification, and annual salary. Each posting could receive more than one application. Each applicant could apply to more than one position. Although each applicant could apply to multiple position, he/she cannot apply to same posting multiple times. Each application contains the submission date, applicant's contact information, applicant's qualification, and decision. There are only two possible decisions for each application, which is either hired or rejected.

Requirements:

- There are multiple job postings
- Each posting can only be for one position
- Each posting could receive more than one application
- Applicant should have at least one application
- Applicant cannot apply to the same posting multiple times
- Applicant could apply to multiple postings
- Applicant will put his/her qualification in each application

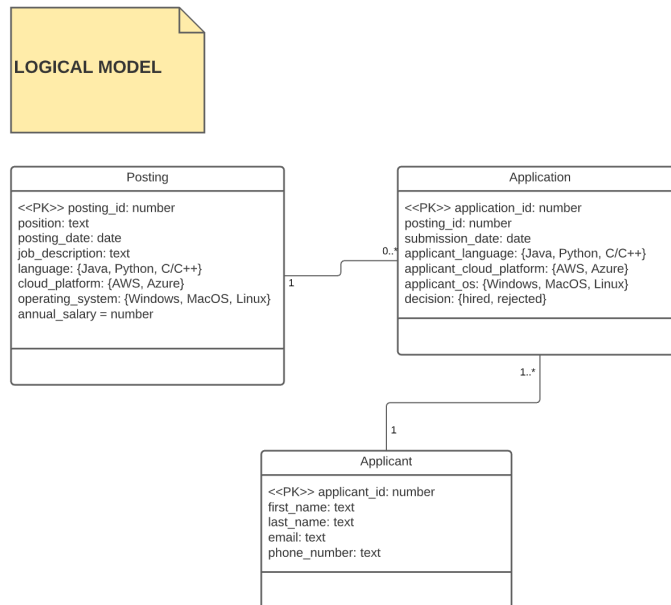
Nouns:

- Job posting
- Application
- Applicants

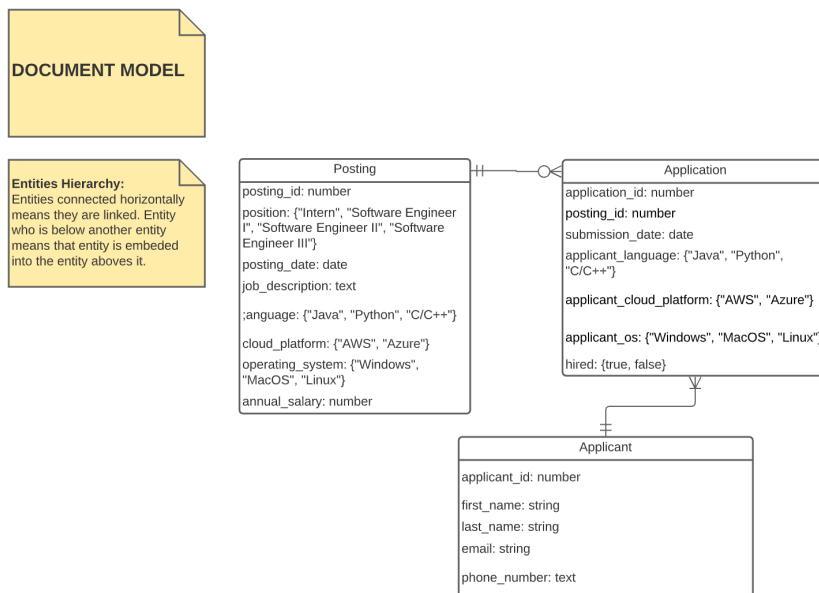
Verbs:

- Apply

II. Conceptual Model



III. Document Model



IV. JSON Hierarchy

See file named: jsonHierarchy.txt for hierarchy example.

V. Redis Functionalities

A leaderboard will be implemented using in-memory key-value database to show postings with most received applications. Redis will be used as the in-memory database. I will be using Redis sorted set to implement the leaderboard. The key will be postingLeaderboard, postingId will be the values with number of submitted application as the score.