Project II: User Case

collaborator.net is an application that enables users to discover their own professional network, and identify other users with particular skill sets. Users work for organizations (governments, universities or companies), work on projects, and have one or more interests or skills that are weighted by their significances or levels. Based on this information, *collaborator.net* can

- describe a user's professional network by identifying other subscribers by a defined criteria

- identify collaborators with specific skills who are directly or indirectly connected to the current user

Project II: Requirement

- Build a database to model *collaborator.net*
- The database should at least answer the following questions in a quick response time:
  - For a university user, find all other individuals who share the same interests or skills as the user, and work in the same or different organization within 10 miles from the organization that the user works. The individuals should be ranked by the total weight of shared interests (or skills) with the user. In addition, the output should include the organization name, and the list of common interests (or skills).
  - For a user, find all trusted colleagues-of-colleagues who have one or more particular interests. The "trusted colleague" is defined as two persons have worked on the same project.
  - For a specific entity, get its related information quickly.
    - e.g. user: name, phone, address, degree etc.

Project II: Requirement

- A Python command-line client interface for database creation and query
- Every entity-type/relation-type should have at least one properties
- Insert at least five entities/relations for each entity-type or relations for each relation-type into the database.
- Use at least two types of NoSQL stores (Key-value, Document, Column Family, or Graph)

Project II: Requirement

- Document (no hand-writing, in print!)
  - Design diagram
  - Description of data inserted
  - All queries
  - Potential improvements (e.g. how to speed up query)
- All source codes (sent by email)
- Two-person team
- Due: 11:59pm, April 3

Project II: Rubric

- Database design: 30%
- Query functionality: 30%
- Client interface: 30%
- Presentation: 10%