SparqEDU
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Background & Motivation

- By 2020 there are an estimated 20 million online students.
- An estimated 33% of university students will be enrolled in one or more online courses.
- 91% of all universities identify online learning as crucial to their Growth Model.
- Online students face isolation from their peers; an inability to collaborate and get help.
- Currently, there is no platform bringing online students onto one platform offering places to find help and future employment.
- There is a need for an online hub for students to connect with peers, mentors, recruiters and employers.

Database Design

- Utilizes a MySQL / Amazon W3 Hybrid structure.
- User information is stored in the people_people table.
  - This holds a unique ID, full name, username, encrypted password, major, and university.
  - The ID number is used to link the user profile to other tables that hold things such as comments and community subscriptions.
  - The ID number also links users to a table holding all group information.
- Text-based user information retrieval for Anahita is quick and efficient.

User Interface

- Register for account
  - Choose account type
- Add / edit information such as gender, location, school, studies
- Subscribe to other users or groups as well as manage subscribers
- Create a group and add members to the group
- Search pool of users for keywords which include name, major, university and location
- Leave notes on user’s profiles
- Receive notifications from other users
- Admin abilities include: activating / deactivating profiles, changing Sparq settings (domain, storage), mail and plugins.

Features

- Display suggested connections based on user’s university, major, location, using tendencies.
- Implement more interactions between students, tutors, and recruiters.
  - Students should be able to apply for a job position posted by a recruiter.
- Ranking search results based on criteria chosen by the user.
- Analyze the user’s top and bottom 100 words to further understanding about activities and education level.
- Further User Interface improvements.

Technologies & Tools

- SparqEDU aims to give online students the same level of access to information that classroom-based universities can offer.
- Uses are able to register as four account types:
  - Student - Tutor
  - Recruiter - Employer
- Profiles hold information such as location, major, classes, interests, and experience.
- Sparq will match users based on similar criteria so that they are able to find help or seek employment.

Anahita

- Open source social networking platform
- Built and maintained by Rastin Mehr
- Nodes-Graphs-Stories architecture
- Comes with customizable profile objects
  - Allowed us to add fields for Sparq functionality
- Uses PHP, HTML5 and JSON
- Can be found at GetAnahita.com

Glossary

- Nodes-Graphs-Stories architecture: All the content (ie, profiles, groups) is nodes, the relationship between content is represented by a graph, and the connections between nodes are stories.

Future Work

- We would like to thank the following people for their help and support through the last two semesters:
  - Our sponsors, Aimee Raley and Andrea Campion
  - Our faculty mentor, Aaron Crandall
  - Rastin Mehr and the Anahitapolis community
  - Sakire Arslan Ay
  - Vasiliy Bunakov and the VCEA help desk

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