Group 15

Dino Buddies

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Introduction

Overall Purpose

The purpose of our project is to make an application that can be used by students to find other students that share similar interests to them. We wanted to base this project on the University of Calgary, and decided that an application that can help connect students together would make a more interconnected school community.

Real or Imaginary Clients

The client is the wellness center at the University of Calgary.

Business Requirements

The client is the wellness center at the University of Calgary, the center wants a way for students on campus to connect with other students in an academic setting. Many students have reported that they are lonely and find it hard to make friends on campus. The main objective of our app is the wellbeing and support of the students at UofC, and student interaction and mental health. The high level objective is after its created for UofC, we can offer the product to other universities and campuses.

High Level Objectives

The high level objectives involved with this project will include:

- Designing a database solution that will allow us to hold user data and credentials
- Create an API / microservice that interacts with the web application and the database solution
- Build a responsive and simplistic desktop/mobile web frontend
- Design an aesthetic mobile design that is similar to the desktop design
- Successfully implement a matching system that allows students to interact with ease

User Requirements

Primary User Group

Students at UofC

- Persona: Bob is a lonely CPSC student with no friends. He wants to make some friends but doesn't know where to start. He's very shy and it is difficult for him to talk to people in lectures and random people in the hall. He has never used any apps of the sort
    1. Bob goes to dinoBuddies.com
    2. Bob doesn't have an account so he registers to make a new one
        - 2.1. It ask for a ucalgary email
            - 2.1.1. He registers his personal (non)ucalgary email and is rejected
            - 2.1.2. Submits his Ucalgary email is approved
        - 2.2. It ask for a 'strong' password

2.2.1. He submits ‘weak’ password and fails
2.2.2. He submits a ‘strong’ password and is approved
2.3. The website alerts bob to confirm his email

3. Login into his account for the first time
3.1. Bob is prompted to enter his gender, degree, age, courses he is taking, and whether he is a student or instructor.
3.1.1. Bob fills male
3.1.2. CPSC
3.1.3. 20
3.1.4. SENG 513
3.1.5. Student
3.2. Next activity, he is asked to upload at least 1 picture and a max of 6.
3.2.1. He clicks to add a photo and a system folder pops up and he navigates to upload a picture
3.2.2. He submits the photos
3.3. Next activity it ask for a short description of himself
3.3.1. He enters “I like to rock climb and make friends”
4. The next activity pops up a card of Stacy.
4.1. The card shows
4.1.1. 19 years old
4.1.2. In Bio-Science
4.1.3. Likes to take care of animals
4.1.4. A collection of pictures of stacy
4.2. Bob thinking that she would make a good friend swipes the card to the right
5. The next activity pops up a card of Joe.
5.1. The card shows
5.1.1. 24 years old
5.1.2. In arts
5.1.3. Likes to make fun of people
5.1.4. A collection of pictures of Joe
5.2. Bob thinking that he wouldn’t make a good friend swipes the card to the left
6. The next activity pops up a card of Brandon.
6.1. The card shows
6.1.1. 20 years old
6.1.2. In CPSC
6.1.3. Likes to watch anime
6.1.4. A collection of pictures of Brandon
6.2. A alert pops on his screen that Brandon is also in SENG 513
6.3. Bob thinking that he would make a good friend swipes the card to the right
7. Bob takes an hour break to go back to studying
8. Coming back, he sees that he gets an alert that Brandon and Stacy have matched with him

9. He goes to the matched page and sees tabs for Brandon and Stacy
    9.1. Clicking on Brandon's tab opens a conversation box
        9.1.1. Bob receives a message from Brandon telling him how good the course is and how they should work together for the project.
        9.1.2. Bob replies back the course is great and that they should work together.
    9.2. Clicking on Brandon's tab opens a conversation box
        9.2.1. Bob receives a message from Stacy telling him that she also likes to rock climb and that they should climb together this week
        9.2.2. Bob replies back agreeing
10. Bob clicks on a Button to sign out
11. Bob makes it to the sign in page asking for email and password or register
    11.1. Bob having an account
        11.1.1. Enters his email and password and submits
12. Bob makes it to the home page

Secondary User Group

1. Professors and Teaching Assistants
2. Clubs on campus that want to gather members
    - Persona: Professor Pavol teaches SENG 513 and CPSC 457. There are a lot of confused students in both classes and whenever he asks for questions, no one says anything. He feels as though he may appear unapproachable and needs a way for the students to be able to feel comfortable asking questions.

        1. Pavol heads to dinoBuddies.com
        2. Pavol does not have an account so he registers to make a new account.
            2.1. Pavol is asked to enter a ucalgary email address.
                2.1.1. Pavol enters a ucalgary email address and is approved.
            2.2. It asks for a "strong" password from Pavol
                2.2.1. Pavol enters a strong password and is approved.
            2.3. The website asks Pavol to verify his email address.
                2.3.1. Pavol logs into his ucalgary email address and clicks the verification link.
        3. Pavol logs into his dinoBuddies account for the first time.
            3.1. Pavol is prompted to enter his gender, degree, age, courses he is taking, and whether he is a student or instructor.
                3.1.1. Male
                3.1.2. CPSC
                3.1.3. N years old.
                3.1.4. SENG 513
                3.1.5. Instructor
            3.2. Pavol is asked to upload at least 1 picture and a max of 6.

3.2.1. Pavol clicks the add photo button which then uses his file explorer to select a photo of a cat.
3.2.2. Pavol clicks the submit picture button.
3.3. Pavol is asked for a description of himself.
3.3.1. Pavol clicks on the textfield and enters “I am a professor. I like computers. Ask me any questions regarding SENG 513.”
3.3.2. Pavol submits this description using the save changes button.

4. Pavol is presented with the main screen of the application, pictures and descriptions of other users.
4.1. Pavol is presented with a card of Kenny’s profile.
4.1.1. Kenny’s profile shows that:
4.1.1.1. He is 22.
4.1.1.2. Enjoys bikes.
4.1.1.3. Is an architecture student.
4.1.2. Pavol swipes the card to the left since Kenny is not a SENG student.
4.2. Pavol is presented with a card of Luke’s profile.
4.2.1. Luke’s profile shows that:
4.2.1.1. He is 21.
4.2.1.2. Enjoys long walks on the beach.
4.2.1.3. Is a CPSC student that is taking SENG 513.
4.2.2. Pavol swipes right since Luke is a SENG 513 student.
4.3. Pavol takes a break from the application to do some work.

5. When Pavol reopens the web application the next day, Pavol is alerted that he has matched with Luke.
5.1. Pavol clicks on the Matches page and is presented with his matches.
5.1.1. Pavol clicks on his match with Luke and heads to the chat section.
5.1.1.1. Pavol asks if Luke has any questions about SENG 513 that he isn’t comfortable asking in class.
5.1.1.2. Luke responds that he doesn’t really understand HTML.
5.1.1.3. Pavol helps Luke and points him to some external resources that will help Luke understand HTML.

Functional and Implementation Requirements

In order to meet the needs of our primary and secondary user groups we plan on implementing a multitude of features.

- Searching for people
    - Display the profiles of others, you swipe left or right.
    - The main goal for our application is to have users meet and interact with others, we will need to match users with other, similar users. This is our main priority.
- Making your profile
    - Editing profiles
    - In order to match users with other similar users, we will need to ensure that a user is able to accurately showcase themselves and their hobbies. This will be used by users to determine if they would like to connect with others.
- Registration and login capabilities
    - Need to ensure that our application is secure and easy to use. Users will need to register with a ucalgary email address in order to join our network.
- (Study Search) setup and find people who are looking to study the same course.
- Responsive and resizing application on both desktop and mobile applications
    - Since mobile is a growing market, we want to ensure that all users are able to use our application. While we will be focusing on desktop first, our application will still be mobile friendly.
- Auto reconnection to the application in the case of poor network conditions
    - Networks are often unreliable, we will need to ensure that our application is resistant to disconnections.
- (Buddy Search) find people and arrange the screen to show image and hobbies
- Chat capabilities
    - This is a main priority. This will be how users interact and build friendships.
- Ability to have cached conversations with matched buddies.
    - Group Chat
        - An option to create a group chat by throwing N people who are interested in the same hobby into a new chat. They just log in and find out that they are in a chat with 3 others who are interested in the same hobby.
    - One on One Chat
        - An instructor and student who are matched can talk privately about the course regarding questions or course feedback.
        - Students who are matched can talk privately about common interests or courses.
    - Chats should be saved and users should be able to see previous messages sent, so that sudden disconnects will not cause any loss of previous messages.

Task Completion Projected Timeline

Date	**Completed Tasks**
March 7, 2020	Design and implement a basic front-end UI

March 14, 2020	Create a login/registration system along with a simple database system
March 21, 2020	Implement profile creation with editing for unique users
March 28, 2020	Implement Matching and chat functionality
April 4, 2020	
April 11, 2020	
April 18, 2020	

Technical details and technologies

- Bootstrap
- Responsive Grid Layouts
- HTML and CSS
- Buttons and Textfields
- Images
- Sockets and websockets

Mobile Strategy

We designed the first portion of our

1. Aim to build a mobile-friendly website rather than mobile-first
    - Begin by using Bootstrap and responsive grid layouts
2. Begin with making interactions mainly mouse-based
    - Clickable buttons, scrolling interactions
3. Auto stack containers etc. to make responsive website
    - Auto reorganize or stack grid layouts into vertical alignment, side scrolling semi-transparent menus

Given enough time, we will need to implement the ideas of UCD with interviewing, usability testing and prototyping to produce the project.

4. Create desktop interface aiming to space out the layout into different sections
5. Design form factor of navigation to fit into phone screen area
6. Restructure navigation for more natural flowing interactions on mobile
7. Redesign the flow tree for shorter paths and better information density
    - Reduce vertical tree levels, aim to minimize interaction times and visitability