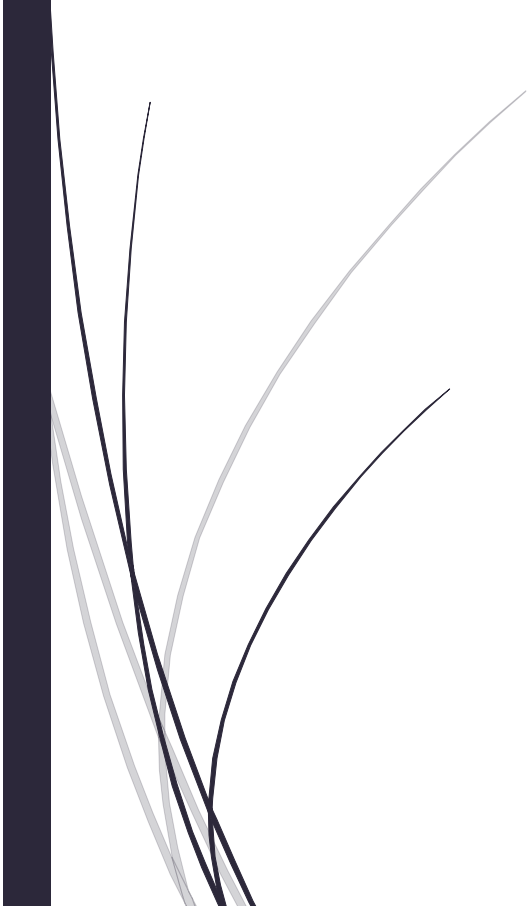
10/20/2017

Project Proposal

Team 3



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TEAM 3
PROJECT PROPOSAL

OPPORTUNITY

There are about 20 million students that are enrolled in an American college or university. The goal of most of these students is to use the education that they are paying for to secure a job upon graduation. One of the key factors in being able to find an internship or a full-time job is networking.

There are all types of ways to network. You can go through friends or family, check LinkedIn or even cold call professionals to try and talk to them. However, the problem is that it is hard to keep track of all the different people you meet. You need to remember details such as their name, where they work, what role they have in the company, how your conversation went, etc. It is challenging to find the person you networked with at an event. For example, it is difficult to find all the people you talked to at an event by looking them up on Linkedin. This leads to process loss -- the time you put in during networking event translates to nothing.

The benefit of solving this problem is immense. Imagine your connections if you can connect with just 5 more people at every event -- the chance of getting a job will easily scale up. Hence, we want to provide a mobile application that will not only make it easy for people to exchange professional information, but also provide a way to help organize professional contacts. Users can create a business profile, which is essentially a virtual business card with more information.

We want to improve the meeting process at career fairs by enabling recruiters to receive your information while they are talking to other candidates. This will give both the recruiters and you more time to converse about the job opportunity itself.

VISION

Product Goal

Create a mobile networking application that allows users to create business profiles or “virtual business cards” that contains contact information as well as anything else the user wants to include.

Stakeholders

Students, experienced professionals, and recruiters. Our application provides benefits because a lot of the times networking can be a quick conversation, and you network with so many people so you need a way to quickly exchange or send information and then a platform to organize that information.

Competitors

The following table shows our biggest competitors:

		Our Product	Linkedin	Shapr	GroupMe	Email
Mobile Application		Yes	Yes	Yes	Yes	Yes
Exchange business profiles?		Yes	Maybe (Connect people and view profiles through online platform)	No (More for meeting people for coffee, etc)	Maybe (Can be used for that purpose, but not optimized for this	Maybe (Can be used for that purpose, but not optimized for this
Compatibility	Non-Smart phones	Yes	No	No	Yes	Yes
	Non-account holders	Yes	No	No	Yes	No
Specific people that you requested		Yes	Yes	No	Yes	Yes
Group contacts together		Yes	Maybe (Tag contacts with particular tags)	No	Yes	Yes
Find specific person easily?		Yes	Maybe (Spelling of names, finding many people with the same name)	No (Connects user with random other users)	No (Phone number required to find people)	No (email address required to find people)
Add notes and descriptions to contacts		Yes	No	N/A	N/A	Yes

EXPECTED RESULTS

The following tables are the use cases we hope to accomplish by the end of the project. The A-level Use cases are the features that are part of the minimal viable product. The completion of these would provide all of the features described in our vision as well as our competitive advantage of making quick and easy real-time connections. The B-level use cases are features that will give us a significant competitive edge over the competition because these features are not present in any of our competition's products. The C-level use cases are add-on features for specific client needs for smaller sections of our users.

A-Level Use Cases		
Use Case Name	**Actor(s)**	**Description**
Create Account	User	The user can create an account with credentials
Login	User	The user should be able to login with previously created credentials
Create Business Profile	User	The user should be able to create a business profile on the application that contains information that he/she wants to be shared
Transfer business profile information	User	User should be able to transfer business profile information through the application
Add Groups	User	The user should be able to create contact groups
Add Nested Groups	User	User should be able to nest groups within other groups

View Groups	User	User should be able to view the groups that he or she created
Edit Group	User	User should be able to edit attributes of the groups he or she created
View Contacts	User	User should be able to view all of contacts in particular groups or all together
View a particular contact	User	User should be able to view details about a particular contact
Search for contact	User	User should be able to search for a contact using specific parameters
Add Contacts	User	User should be able to add new contacts manually
Add Contacts to Groups	User	User should be able to manually add contacts to contact groups that he/she has already created
Attach multiple roles to users	User	Users should be able to attach multiple roles to one user account so they can transfer between them depending on the situation
Connect people using a unique code	User	User should be able to connect to another user by entering a unique code and wait for the recipient to confirm

B-Level Use Cases		
Use Case Name	**Actor(s)**	**Description**
Connect two people using QR code	User	User should be able to connect to another user by scanning the other user's unique code
Connect two people using geolocation/bluetooth	User	User should be able to connect to another user by enabling this feature
Add notes to profiles	User (recruiter)	User should be able to add notes to a contact's business profile. Especially useful for recruiters to add information.
Save profile with notes	User (recruiter)	User should be able to save the business profile with their notes
Compatibility with non-smart phones or users without application	User	User should be able to get sent business profile information (through email or similar medium) even if they don't have the application

C-Level Use Cases		
Use Case Name	**Actor(s)**	**Description**

Direct message through application	User	Be able to directly contact the user without having to rely on other mediums of communication
Scheduling meetings through the application	User	Have an internal scheduling tool or connect to an existing calendar API

FEASIBILITY

Option Evaluation Criteria		
Alignment with Class Objectives		Our goal was to create a competitive innovative product to build out. Our product uses many kinds of hardware and software to solve an endemic problem in current networking solutions. Not only does it use many different kinds of software tools, it also interfaces with hardware, database and signal components to create a unique and interdisciplinary product.
Technical Feasibility	**Team's technical abilities and background**	All of the team members have at least a strong base in Web application development with API and Database integration.
	Hardware Required	Only requirement is mobile devices to test application on

	Software Required	Only using open source, free software with extensive documentation
Economic Feasibility		Only foreseeable cost at this point is QR code generating and reading software, which is under $15
Time Feasibility		Project plan developed shows we can complete all of the features within the semester. Have a hierarchy of use cases, depending on value added and minimum requirements, which will be completed much before deadline, enough to create a minimum viable product
Potential Risks		The volatility and unfamiliarity of working with hardware (mobile devices), gathering data from them and analyzing them meaningfully.
		Working with third party tools (such as Bluetooth transfer, React Native and mainly the QR reader, writer) causes us to rely on the quality of their tools for our product
Resources available	**Mentor**	Our mentor has thus far helped us narrow our focus and maintain feasibility on the project as well as help us develop a competitive product
	Professors	Professors have been a great resource to bounce ideas off of and ask for different ideas from

	Specific technology experts	NodeJS instructor has agreed to be a consultant on any technical questions and problems specific to that technology (NodeJS, Javascript, Socket IO, geolocation features)
	Documentation	The documentation for the specific technologies that we have chosen are extensive. They are all well known technologies
Overall Viability: Scope: To build a web application that uses integrated modules, 3rd party API features, hardware only technology along with software interface in order to allow users to connect with each other quickly, accurately and efficiently, in contexts such as networking events.		

TEAM STRUCTURE

Team Member	Role	Description	Experience
Eric	Project Manger	• monitor the developmental process of the project • communicating with our mentor Skylar • organizing team discussions • keeping track of efforts by each teammate • making sure that our prototypes meets the users' need.	Project Management and Innovation internships Business Innovation

Anu	Technical Lead	• Designing specifications for solution • Implement features that best suit our needs • Summarizing progress and compiling sprint reports	Software Development internships
Bruce	Quality Assurance	• Making sure product is functional at every iteration • Development process is well documents • Make recommendations about the workload	Full Stack Development internships Familiar with SCRUM methodologies

PROJECT PLAN

Tasks

- Team Discussion: the team will discuss the direction of the project. Namely, tradeoff of features, design choices, technical research, etc.
- Mentor Meeting: The team will meet with mentors to update our current progress and heed to advice from our mentors.
- Coding Session: The team will gather to discuss and execute the details of our implementation

Use Cases

As a ...	I want ...	So that I can
Recruiter	Notes	Take notes on my electronic devices without
Recruiter	Scheduler	Anticipate how many people will tend during a fixed period of time so I can communicate with students more efficiently
Recruiter	Groups	Efficiently sort applicant's information at career fairs

Student	Profile Quicksend	Quickly send my contact information to people I networked with at events
Student	Scanner	Send my information and resume to recruiters so that I can spend more time talking to them
Student	Scheduler	Reduce my wait time at job fairs and be more goal-oriented at recruiting events

Timeline for Execution

Key project dates are outlined below. Dates are best-guess estimates and are subject to change until a contract is executed.

Description		Start Date	End Date	Duration
Feature Specifications		10/20/17	10/21/17	6 hours
Technical Research		10/25/17	10/27/17	20 hours
Design Front end components of application		10/20/17	10/21/17	20 hours
Design Database layout of application		10/20/17	10/21/17	5 hours
High fidelity mockups based on solidified model for application made		10/22/17	10/27/17	15 hours
Functional Prototype I (A-level Use Cases)	Build and Test models	10/22/17	10/27/17	30 hours
	Build and Test controllers	10/20/17	11/1/17	30 hours

	Build and test front end user interface	11/1/17	11/6/17	50 hours
	Compile and user test prototype	11/6/17	11/8/17	20 hours
Functional Prototype II (B-Level Use Cases)	Integrate QR technology	11/8/17	11/11/17	50 hours
	Integrate React Native	11/11/17	11/15/17	20 hours
	Integrate Bluetooth component	11/15/17	11/22/17	20 hours
Functional Prototype II (B-Level Use Cases)	Do analysis to see if it would fit in well with other parts of the application	11/22/17	11/22/17	10 hours
	Direct message component	11/23/17	11/26/17	20 hours
	Scheduling meetings component	11/27/17	11/29/17	20 hours
Final Product Testing		11/29/17	12/6/17	50 hours

Resources

Resources	Start Date
Mentor	Mentor is an invaluable experience to our development process. During each cycle, we will constantly consult our mentor for expectation of workload, technical difficulty, and feature tradeoffs.

Professors	Although our group is familiar with software development process, we want to take advice from our professors, as they are much more experienced with the process and technology. They will offer us invaluable advice to make our developmental process less taxing
Documentation	Open source libraries would be crucial to our implementation. Not only because it offers robust API that suits our functional needs, but also provides good examples of code structures.
Users/ User Testers	We will target our friends as the primary sample population for our prototypes. We believe they are a good resource to user testing because they are familiar with networking process and career fair. It is something they can relate to. By testing our implementation on them, and receiving feedback, we can effectively improve our product, as students will make up a large group of our user population.

Metrics

Resources	Start Date
Person-hour	Person-hour is a basic metric of effort includes the amount of hours put in by the the team member per week. This will be reflected in the weekly sprint report.
Attendance and meeting contribution	Attendance is a metric to measure the effort put in by each teammate. Each teammate is also expected to intellectually contribute to the project discussion.
Github Push Requests	Push request is a metric to the technical effort put in by each teammate. Each member is expected to implement part of the technical aspect of the end product