MaVeN

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User Interview Results

Michael Dandy

Customer: CS Undergrad Student

Problem: He wishes that there is a campus virtual tour guide. It will be a huge help for freshmen who oftentimes are overwhelmed with how big Georgia Tech campus is. Basically, he wants a mobile app that can show him basic information about the buildings in Georgia Tech as he walks around campus. This information include:

- whether or not he has class in that building; if so, show the class schedule
- whether or not the building has study rooms

Customer: CS Undergrad Student

Problem: There should be a free PRS system. As we all know, the PRS system was changed several semesters ago, and it becomes a huge pain for Seniors. Some of their classes require PRS clicker as part of attendance and/or participation grade. As result, they have to either buy a new PRS clicker or pay subscription fee. Unlike lower classmen, Seniors won't be able to use that clicker in the next semester since they are about to graduate.

Possible fix: Have a PRS web or mobile application, and it should be distributed for free.

Jonathan Edwards

Customer Archetype: Undergraduate, mid-twenties

Key-pain: Parking is a nightmare, and he would like to know when one lot is open and another isn't. The lot next to Howey was mentioned, that he will drive all the way here just to discover that no spaces are available.

Possible fix: He didn't mention a solution, just that he would want to know when the lots fill up before he gets there. I felt that it could be accomplished very simply if we could get the data from the parking meter in the lot next to Howey, and then just display when the lot is full or when it contains vacancies. The same principle could be applied to the lot next to the parking registration building in Tech Square.

Customer Archetype: Undergraduate, early twenties

Key-pain: I wish there was a way to see if fellow Tech students had the textbooks I needed for the semester so I could buy them sooner and save some cash in the process. (The student then described that his work-around was to use Reddit.com and find other Georgia Tech students who would participate).

Possible fix: Create an app for textbook trading and sales/requests so that Tech Students can benefit from each other's personal libraries. It should have user profiles, the name of the textbook, the price, the class the textbook for, and location for meetup.

Kevin Johnstone

Customer: Faculty

Key-pain: Currently, racquetball reservations at CRC is done by pen and paper system, and it is a hardship. You must call the CRC and make a blind reservation in

which you cannot see what reservations are available beforehand. If there is a mobile or web application that allows you to make reservations online, it would be much easier to coordinate reservations with other players. In adddition, I am not always in a position where I can make a call to reserve a court. For example, when I'm in class, I have to wait until the class is ended to make a reservation.

Customer: Student, undergraduate CS major

Key-pain: Finding group in classes where you don't know anyone is quite problematic. He had taken classes such as ISYE 3770 that had major group projects but he did not know anyone in the class. The current solution is to spam the class with artificial resumes. It would be nice if there is an app that allows you to create profile that includes information such as GPA, major, and technical skill. This app should help in group creation by allowing people to search team members based on certain criteria.

Josh Zeder

Customer: Undergraduate, early twenties.

Problem: He would like to know how many people are at the gym so that when he knows when the best time to go to gym is. Otherwise, he could possibly wait for a long time to use the equipments.

Possible solutions: There are no simple solutions for this problem. You can get the number of people coming in because you have to scan buzzcards to get in. However, there is no simple way to measure the amount of people leaving.

Customer: Undergraduate, teenager.

Problem: He wants to know the fastest walking path to class and how long it will take so that he knows the latest possible time to leave. This could be done using Google maps, so I do not think it needs to be redone.

Project Description

Based on our interviews, we are going to make a mobile web application for racquetball reservation system. Our web application will be designed with racquetball and squash players at the Georgia Tech Campus Recreation Center in mind. The web application will provide a user-friendly interface that will list all

outstanding reservations and allow users to create new reservations for courts that are available within the next forty-eight hours. The forty-eight hour rule is to keep inline with the current CRC rules for reservations. This system will use GTMob to authenticate the user so that we can assure that the user is either current student or alumni. We will also create a database that this app will use to read and write reservation data.

Shortcomings of current solutions

Currently the CRC uses a simple pen and paper approach when recording racquetball and squash reservations. If students wish to make a reservation for a court they must either call the CRC or travel across campus and check with the front desk if there are any vacancies. A major problem with this current reservation system is that your planned time may not be available. You must then contact the player(s) you are going to play with and schedule a new time, in which you can both play. You must also either be at the CRC or in a position where you can call in order to make the reservation. Another problem with the current solution is that anyone can call and make a reservation. People who are not students or alumni can call and make reservations, allowing them to circumvent the rules and make several reservations in a row.

Technologies to be used in the solution

We will be developing the frontend application using HTML, JQuery, and CSS. The database will be in MySQL. The backend will be coded using PHP. Moreover, we are going to use GTmob API to interact with GT related information such as GT authentication, GT directory, and student information.

Deliverables

- Prototype wireframes
- Source code for application
- Demo to the RAs of the app working on a handset
- Documentation covering:
  - the application architecture
  - possible improvements
  - known bugs and issues
  - interaction with dependent services
  - problem areas and how the team overcame them
- Short (4 minute) video presentation that includes (at a minimum) the

problem, solution architecture and demonstration

References

- JQuery Mobile - http://jquerymobile.com/test/docs/api/index.html
- HTML - http://www.w3.org/TR/1999/REC-html401-19991224/
- PHP Manual - http://www.php.net/manual/en/
- PHP PDO Manual - http://php.net/manual/en/book.pdo.php
- GTmob - http://gtmob.gatech.edu/drupal/apis