Date-A-Dog Development Team Postmortem Analysis

Features & Cuts:

There are two components to our software:

1. Mobile Application for Daters
2. Web Application for Shelters

Implemented features within the two components are:

1. Mobile Application for Daters
    - Facebook-authenticated login.
    - Zip code-generated list of dogs pulled from Petfinder API to choose from.
    - Swipe activity to specify "like" vs "dislike".
    - "Liked" page of liked dogs.
    - Ability to request dates with liked dogs and provide a reason.
    - User demographics collected via a form on first date request.
    - User log out.
2. Web Application for Shelters
    - Facebook-authenticated login.
    - "Pending" tab displays requests for dates with no decision.
    - Each request shows information submitted by the user as well as the date reason.
    - "History" tab displays requests for dates that have expired or already had a decision made on them.
    - "Pending" requests can be "Approved" or "Denied" (with a denial reason) or a user can "Undo" the request.

We were able to meet all of your basic feature requirements as detailed in our original SRS. Both the web application and the shelter website are fully functional and we have confirmed real time end-to-end functionality of the mobile application and the web page. The stretch features as described in our SRS were not implemented, but we did manage to include the following stretch features that were not previously a part of the SRS:

- The shelter end of the program was originally meant to just be a part of the mobile application, but after careful consideration, we decided that it made more sense for the shelter website to be accessible on a desktop instead, so we decided to make it a website accessible by phone or laptop/desktop, with the desktop as the recommended platform.
- The automatic decline of shelter requests that expire before a decision is made on them. This is not to be excused with date requests made for a previous date, which the application does not allow.

In addition to these concrete features, a lot of minor tweaks were made to the back end design of server, allowing for faster, more efficient query processing, which in turn created a more efficient, faster application. We also modified the user UI for both the web application and the shelter website in order to make it more aesthetically appealing and easier to use.

We also had to cut some features from the application:

- A separate "Pending Requests" tab on the mobile application. This was cut in order to keep the mobile application interface more simple with just two tabs instead of three and also because of time issues. We estimate we saved about three days of work by cutting this feature.
- An automated "Closest Zip Codes" calculator that would take a given zip code, retrieve dogs from the Petfinder API for that zip code and then keep widening its radius of search until a required number of dogs were retrieved from Petfinder. The radius would widen by using longitude-latitude calculations and zip codes. This feature was already written, but finally it was cut due to integration issues and a concern that it might create more problems in the rest of the code. We estimate that we saved about four days of work by cutting this feature.

Task Assignments:

Roles for the team members were divided up as follows, along with the tasks that took the most amount of time for them:

Amanda (Mobile App Front End) – Dog swipe activity, FB auth & converting activities to fragments.

Amarpal (Server Back End) - Integrating back end components with front end

AJ (PM, Mobile App Front End) – Refactoring code/threading to make application more efficient

Alexis (Web App Front End – Accordion design for date requests

Hassan (Mobile App Front End) – Constructing activities, Converting activities to fragments

Lauren (Server Back End) – Database implementation

Hugo (Web App Front End) – Writing JS asynchronous calls & JS tests

Raag (Web App Front End) – FB auth, End-to-end testing/debugging

Most of our expectations with the development process closely matched our experiences. In some regards, things went a lot smoother than expected (dealing with Petfinder API calls and data results, DB queries) while other components (FB auth, integrating the back end with the front end) were certainly more complicated than we had anticipated.

In the end, the bulk of our time was spent:

- Making the mobile features work and the application appealing.
- Ensuring the proper parsing and storing of information downloaded from Petfinder.
- Making sure the server integrated correctly with the web app front end.

We focused on these areas because we had anticipated that any problems with individual components would be magnified when attempting to integrate the two part of the applications. As a result, we did not feel that we spent enough time ensuring that the two components of the application integrated well until the Release Candidate was due. The primary reason for this was the aforementioned time issue with regards to working on the individual components of the application, but in addition, we also underestimated how much time it would take to integrate the two parts together.