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iOS Team Project Proposal
Github: github.com/srz2/CSC470

Stage I: Project Proposal - Final Report

Note: Original version of document is included at the end of the final report. The original document is marked with asterisks for sections that were updated in order to better illustrate the adjustments made for the final report.

Problem Statement:

An iOS application needs to be created for the iPhone utilizing a minimum of five Amazon AWS cloud services. The application development should span the majority of the Spring semester and the final product should approach start-up quality.

Objective of System / Description of End Product:

Our app idea is for a social travel blogging app. Users will be able to create “moments” by sharing photos, videos, and blog posts from their iOS device. However, unlike a traditional blog where entries are chronological, our application would display this information on a map where the post was made or the photo was taken. Users can be friends with each other, allowing them to see each other’s posts on their own map.

Our app would use S3 to store photos, EC2 to manage images and conversions, SES to send email notifications to users, IAM to provide user credentials, and finally, an RDS database to store user information.

Importance and Need of Product:

A frequent question that is asked when people are shown a picture is “Where is this?!” MyM answers that question, by design. When you take a picture with MyM, the app notes your location and drops your photo on native map application. Taking a road trip? Snap some pictures along the way... at the end, you’ll see a string of pictures along your route. Easily share your moments and manage your own digital travelogue.

Similar Systems:

There are several systems similar to the application we are developing. Instagram is similar regarding the submission of photos to the cloud. The use of locations and databases causes our application to be similar to Foursquare as well. Video moment support creates similarities between our application and other sites that allow sharing of small video clips, such as Vine.

Innovation:

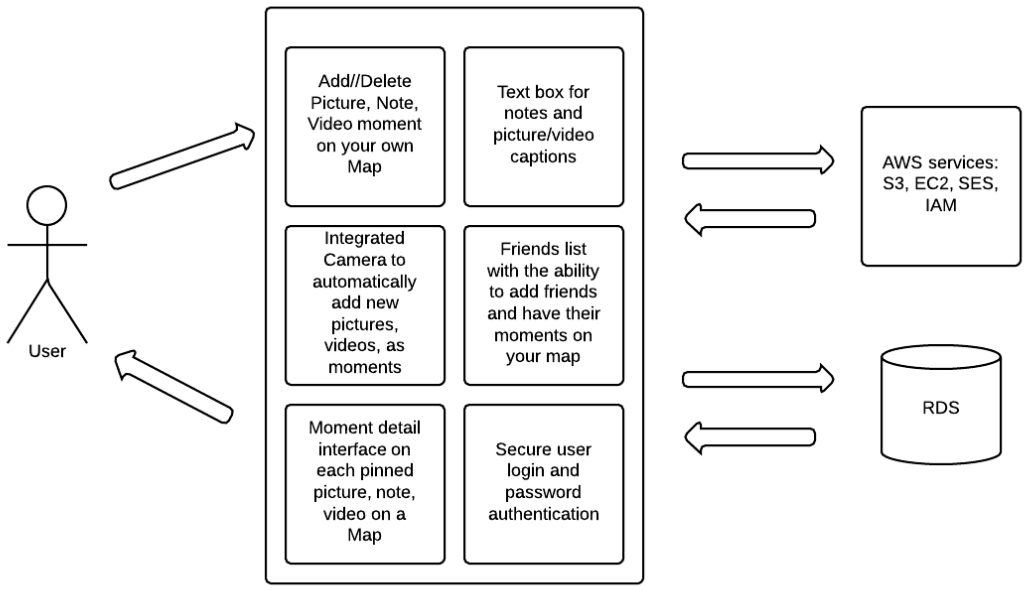
One key innovation in our design is that user content will be uploaded and presented based on location, as opposed to chronologically. Posts from weeks or months ago will be nearly as easy to find as content uploaded the same day and all content will be easily available to find based on location.

Computer Science Concepts and Technologies to Learn:

To complete this project our group will have to learn and use various new tools and languages. Some in our group have been exposed to iOS programming in Objective-C, but others will have to learn this language and delve into the iOS SDK to be able to implement various aspects of the project. Furthermore, our group will have to learn how to implement many AWS services such as S3, EC2, SES, and IAM. The project will also require a database, so we have chosen to learn how to use RDS to meet our project's needs. Since we will be using Github for this project, we will need to all learn how to use git for source version control amongst our group members. Finally, our group will be using an application called TestFlight that will allow us to share over the air our in-progress application for testing by people outside of our group.

Diagrammatic Representation:

Map, Text Editor, Camera, Video, Friends list



Other Possible Applications:

There are several additional applications for this project, including selling houses, travel guides/agents, and tracking band/celebrity tours. House agents could use the application to advertise houses for sale in the area. Travel guides or agents could use the application to promote various vacations and what different spots have to offer. Both house and travel agents could use the application to communicate with potential customers. Bands and celebrities could

use the application to post content from tours or vacations so that users can track their day to day activities.

Roadmap:

Gantt chart: https://github.com/srz2/CSC470/blob/master/Documentation/gantt.pdf
Github Issues tracker: https://github.com/srz2/CSC470/issues
Github wiki: https://github.com/srz2/CSC470/wiki

Original Stage I Documentation

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Our app would use S3 to store photos, EC2 to manage images and conversions, SES to send email notifications to users, SNS to communicate with the EC2 instance, and finally, a database such as DynamoDB or some other database service to store information.

***Importance and Need of Product**:

A frequent question that is asked when people are shown a picture is "Where is this?!" MyM answers that question, by design. When you take a picture with MyM, the app notes your location and drops your photo on native map application. Taking a road trip? Snap some pictures along the way... at the end, you'll see a string of pictures along your route. Easily share your moments and manage your own digital travelogue. The user will also be able to add comments to each of his pictures.

***Similar Systems**:

There are several systems similar to the application we are developing. Instagram is similar regarding the submission of photos to the cloud. The use of locations and databases causes our application to be similar to Foursquare as well. Audio message support creates similarities between our application and other sites that utilize audio messages, such as SoundCloud.

***Innovation**:

One key innovation in our design is that user content will be uploaded and represented based on location, as opposed to chronologically. Posts from weeks or months ago will be nearly as easy to find as content uploaded the same day and all content will be easily available to find based on location. Additional content could be added to the finished product, such as SoundCloud support to send audio messages back and forth between users, which is not currently supported by similar applications.

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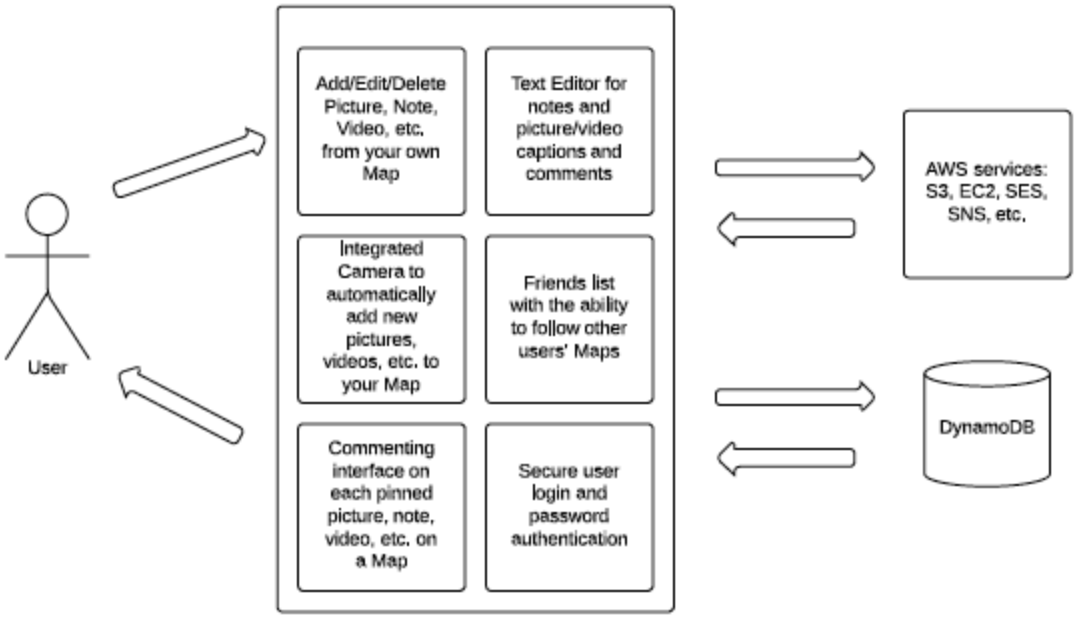
To complete this project our group will have to learn and use various new tools and languages. Some in our group have been exposed to iOS programming in Objective-C, but others will have to learn this language and delve into the iOS SDK to be able to implement various aspects of the project. Furthermore, our group will have to learn how to implement many AWS services such as S3, EC2, SES, SNS, etc. The project will also require a database, so we have chosen to learn how to use DynamoDB to meet our project's needs. Since we will be using Github for this project, we will need to all learn how to use git for source version control amongst our group members. Moreover, if we do integrate the ability to save audio clips using Soundcloud, we will need to learn its api for iOS. Finally, our group will be using an application called TestFlight that will allow us to share over the air our in-progress application for testing by people outside of our group.

***Diagrammatic Representation**:

Map, Text Editor, Camera, Audio (SoundCloud), Video, Friends list, Commenting interface



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