Role - Solution Architect

The solution architect is responsible for the technical direction of the project, making decisions about the strategy to be used to fulfill the requirements, both functional (business functionality) and nonfunctional requirements (speed, failover, etc.) Implementation technologies, platforms and tools and coordinating this with the developers and testers.

Revision History

Week Number	Author	Description of changes
2	Victoria Mannina, David Chan	Chose Database (Parse.com), Server (Parse.com), Language (Java), Platform (Andriod App)

Comments:

- *This page should be updated each week and the TAs will use it to determine the week's work done by the team-member in the particular role.*
- *For each of the items mentioned in the following pages. Be as brief as possible in your responses. A good rule of thumb is to keep each response within two paragraphs.*
- *This document represents your log of decisions. You are not bound to follow a decision blindly. You may change the decision if new aspects come to light which make your decision inappropriate. However, this may include repercussions like code rewrite etc. So choose wisely.*

- You may delete the commented regions for your weekly turn-in submissions.

1. Architectural Decisions

Options

What are the technology options available that you considered? List them here.

Decision

You have to go with one of the options. Describe the details of that option here.

Rationale

Why did you make this choice? Describe the detailed rationale, the reasons for making the choice at this time in your project. You may need to change this decision later, but note that the change will have repercussions such as code rewrite etc.

Architectural Decision Number	1. Chose Database
Options	Parse.com, Mysql
Selected Option	Parse.com
Rationale	We found this and decided it fit what we needed perfectly. It had all t capabilities and is free for a limited amount of requests per second. W didn't feel there was a need to keep searching because we didn't neec anything else as far as capabilities and it couldn't be any cheaper.
Architect	Victoria Mannina and David Chan
Reviewed and Signed off with the following people at this date/time	Austin Han, Matthew Nguyen, Jason Dizon, John Chan, Mike Griffir Michael Tran, Chesong Lee

Architectural Decision Number	2. Chose Server
Options	Parse.com, Google Cloud Platform
Selected Option	Parse.com
Rationale	We felt this was best since we could also use it for our Database. Chesong has had previous experience with Google Cloud Platform ar said there is a learning curve. We want something quick to learn and easy to use.
Architect	Victoria Mannina and David Chan
Reviewed and Signed off with the following people at this date/time	Austin Han, Matthew Nguyen, Jason Dizon, John Chan, Mike Griffir Michael Tran, Chesong Lee

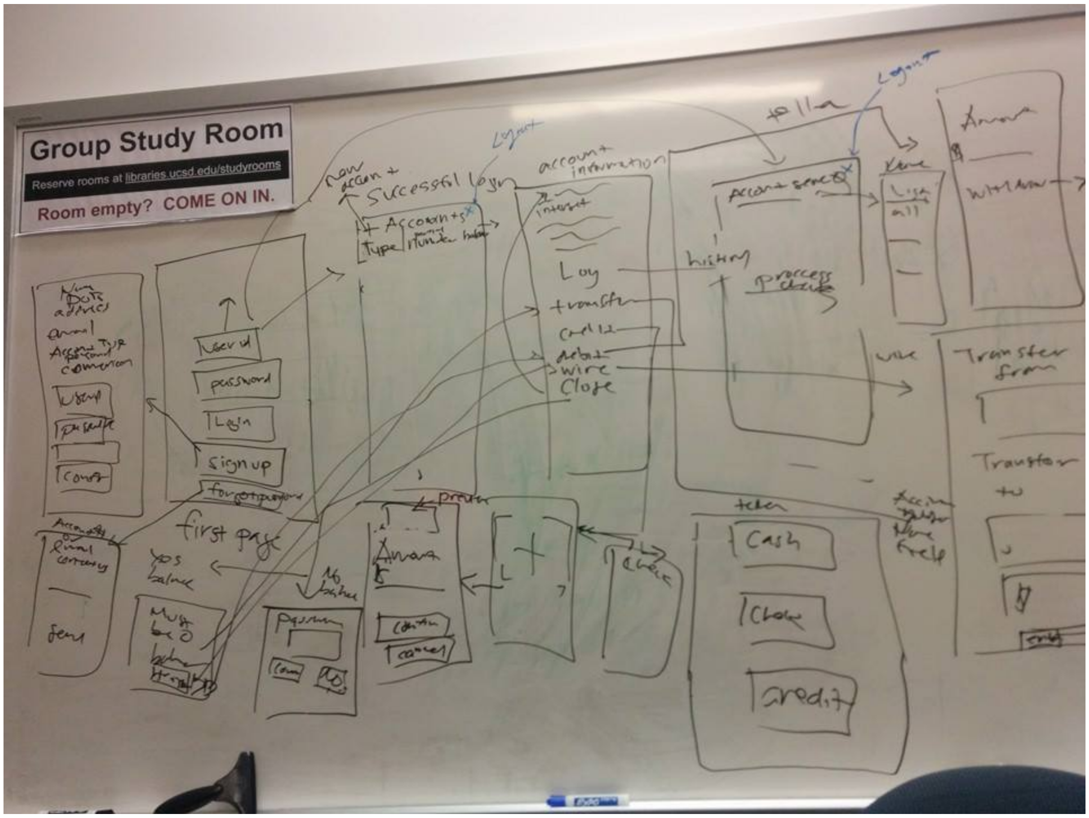
Architectural Decision Number	3. Chose Language
Options	Java, C, C++, PHP, Objective-C, HTML
Selected Option	Java
Rationale	We wanted to use something we all have experience with. We also fe this is the easiest to use for Andriod development.

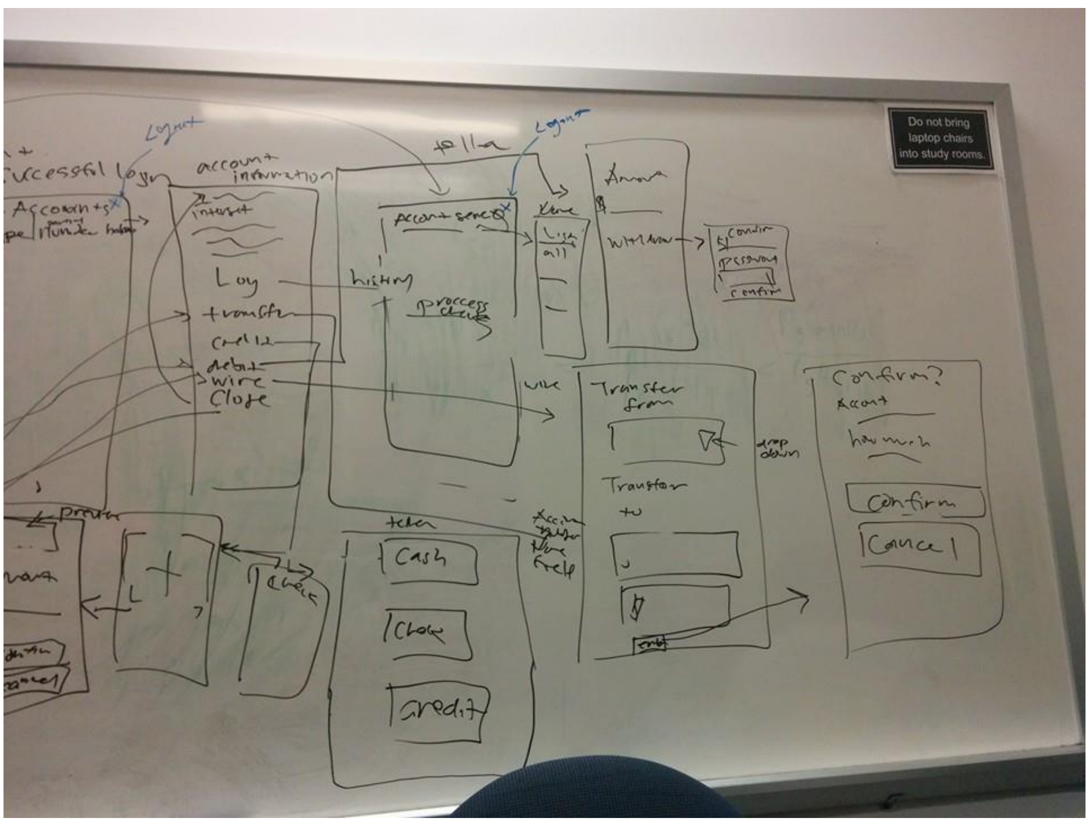
Architect	Victoria Mannina and David Chan
Reviewed and Signed off with the following people at this date/time	Austin Han, Matthew Nguyen, Jason Dizon, John Chan, Mike Griffi Michael Tran, Chesong Lee

Architectural Decision Number	4. Chose Platform
Options	Andriod, iOS, Website
Selected Option	Andriod
Rationale	We all wanted experience with Andriod development. We all know Java, also, so we wanted a platform we could use Java on (not iOS).
Architect	Victoria Mannina and David Chan
Reviewed and Signed off with the following people at this date/time	Austin Han, Matthew Nguyen, Jason Dizon, John Chan, Mike Griffi Michael Tran, Chesong Lee

2. Architectural Diagrams

1.1. Logical Architecture


Group Study Room
Reserve rooms at libraries.ucsd.edu/studyrooms
Room empty? COME ON IN.
Successful login
account information
Log
transfer
wire
Close
password
Login
sign up
first page
Cash
Close
Credit
Transfer from
Transfer to


Do not bring laptop chairs into study rooms.
Successful login
account information
Log
transfer
wire
Close
Cash
Close
Credit
Transfer from
Transfer to
Confirm?
Confirm
Cancel

Comment:

- *Describe the system as a set of logical components, connectors using a block diagram or UML.*
- *e.g. a three-tier architecture consisting of a user interface layer, business layer and a database backend.*

1.2. Physical Architecture

Comment:

- *How are the components really connected?*

The physical servers of Parse.com will be hooked up to the internet and accessible to our mobile app. Meanwhile, our mobile app will be communicating to those servers with the mobile device's connection to the internet via port 80, 443, or other Parse.com available ports.

With sensitive information, our mobile app will be using the HTTPS protocol to assure a secure communication path between our user's device and our servers.

Our application software will be running on the servers of Parse.com, listening to any authorized request of services from our mobile device application. When a mobile user interacts with our application, the mobile device will send a request to our servers with an authentication encryption. Provided that the user had input the correct credentials, the inquire authorization is confirmed through the designated listening port of our server software. Our server will then process the request and securely respond with the appropriate data or change confirmation to the correct mobile device port.