Frame For Android

CS 307 Software Engineering I

Team 1 Sprint Document I

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Sprint Overview

Sprint Phase I is our team's first of three sprint phases to complete Frame for Android. The purpose of this sprint is to lay the groundwork for the application and complete the core foundation. By spending a majority of the time of this sprint accomplishing a few major requirements, we look to position ourselves so that in our next phases we may accomplish several minor features.

In this sprint phase, we expect to have a working GUI--that is, a working media feed view. We shall establish functioning communication between the client and the server, so that the server will be capable of responding to requests sent by the client. The layout of the sprint document for each feature is as follows: declaration of the given requirement, the subsequent requirements needed to be completed to accomplish the major requirement, the estimated time to complete each task, and the owner of each task.

The scrum master shall be **Adam Worthington**. Our team expects to meet on Tuesday, Thursday, and Saturday in the early afternoon of each week to conduct a scrum meeting. These meetings are aimed to help any team members struggling with feature implementation and to help keep team members on track.

Because this stage involves laying the groundwork for the core features of the application, and in addition to the fact that this stage will require a steep curve of learning for team members as we begin to learn how to interact with Google App Engine, we speculate that this shall be our toughest sprint. Because we are relying on this service for the majority of our app's current features, and future scaling, we are banking that our allocated time will include learning the software. Therefore, we claim that the challenges faced during this sprint will be the ability to properly and quickly apply the skills that we are learning to construct the application. In addition, a few of the members have not developed mobile applications before; there will be a learning curve for them.

Current Sprint Details

As a user, I would like to anonymously post text	Time Estimate	Owner
Create Post or Image GUI	10	RK
Create Main View Model	7	RK
Hook up GUI to ViewModel	10	RK
Send request to the server	15	GJ
Create PostText_View model	15	CW
Create Model Classes	4	CW
Implement Activity Bar Navigation	6	CW

Retrieve data and show on mobile	Time Estimate	Owner
Retrieve post from sever	4	GJ
Show post on UI	1	CW

Server Setup and Communication-- Individual details denoted below	Time Estimate	Owner
Expose basic interface to for clients to ping/basic communication	5	AW
Host web server using a RESTful API using Google App Engine	5	AW
Establish communication standards through JSON	5	GJ
Utilize google’s media offloading for optimized client side experience	4	AW

Expose advanced interface to retrieve text from the database	**10**	**AW**

Database Functionality	Time Estimate	Owner
Create accessible SQL database through Google App Engine	**15**	**DS**
Create Tables for media storage/sorting	**5**	**DS**
Implement basic defensive functionality to protect users from malicious actions (SQL injection, etc)	**5**	**DS**

Commitment Analysis:

Grant Jochums - 24 hours
Raaghavendar Karthikeyan - 27 hours
Daniel Sokoler - 25 hours
Craig Wilhite - 26 hours
Adam Worthington - 24 hours
Total Hour Estimate - Approximately 150 hours
(We are expected at about 150 hours - 10 hours a week * 3 weeks * 5 group members)

Satisfied

- Transmission of a text string to the server for storage in the database.
- Retrieval of strings in the database through requests sent to the server.

Backlog

Functional:

- As a user, I would like to take videos with my phone to upload.
- As a user, I would like to write text to be converted into an image to be uploaded.
- As a user, I would like to anonymously post videos to my local community.
- As a user, I would like to comment on comments [if time permits].

- As a user, I would like to search for content with a tag.
- As a user, I would like to filter the content I see by tags.
- As a user, I would like to view content from areas I'm not in, but not be able to interact with that content.
- As an admin, I would like to remove flagged content.
- As an admin, I would like to remove content I deem inappropriate.
- As an admin, I would like to ban users.
- As an admin, I would like to undo bans if I want to.
- As an admin, I would like to be able to post messages that will be constantly at
- the top of the content feed until removed.

NonFunctional:

- The content will be streamed to the app such that only a certain number of posts are loaded at the beginning of runtime. As the user scrolls down the feed and wants to look at more posts, content will continue to be streamed and loaded. Streaming the new content to the phone should happen in less than a few seconds.
- The backend database will utilize data structures that are highly scalable and dynamic so that scaling with an increased user base will be automatic or as simple as changing a few numbers in a config file. For example, a dynamically sized hash table that detects when it is becoming overly full and resizes itself to the current load.
- The main focus of our usability will be the front end user interface that will allow the end user to execute any action with only a few taps.
- There will be no usernames or passwords to protect because there will be no accounts, the app will be tied to each person’s phone. The posts are not hidden from any users so there would be little point to encrypting the posts that are stored on the database. The main concern would be people accessing the identifier attached to each person's phone; we are going to combat this by making a user talk to the user interfaces and then the user interfaces will talk to the database. In this way we can prevent people from requesting information that they shouldn’t have.
- This app will be developed for android and will be ported to other platforms if time allows. We chose android because it is an open platform that has a high market share and is most familiar to the members of the team.
- The application will be ported to iOS [if time permits]
- The application will be ported to Windows Phone [if time permits]
- This application will have a tablet version developed for Android [if time

- permits]
- This application will have a tablet version developed for iOS [if time permits]
- This application will have a Windows Store application developed [if time
- permits]
- As a developer, I would like to be able to make changes to the app after it is launched.
- As a developer, I would like to make the code as modular as possible.