Chat Away

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CS-230

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# Software Design Template

Version 1.0

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## Document Revision History

| Version | Date | Author | Comments |
| --- | --- | --- | --- |
| 1.0 | Jan 10, 2022 | Brandon Hobbs | Initial Release |

## Executive Summary

In an effort to reach more customers, social media company Chat Away wants to develop a mobile platform version of their website. This app needs to be distributable in both Android and iPhone app stores. Budget and timeline remain a high priority within the project.

## Requirements

Design requirements:

* App allows a user to connect to their existing account
* App allows a user to sign-up if they are a new user
* App connects to the web deployment’s back-end; separate back-ends should be avoided
* App allows a user to post, text and video, using their account
* App allows a user to interact with any friend’s post
* App allows a user to curate their friend list

Architectural requirements:

* Compatible with the latest iOS
* Compatible with the latest Android OS
* Conform to each app store requirements for distribution

## Design Constraints

Tech stack needs to be compatible with the latest mobile technologies, i.e., Java for Android and Swift for iOS – two languages may mean multiple teams or multiskilling a high performing team.

Encryption techniques need to be compatible with existing web deployment.

Any APIs on the web deployment side will also need to be reviewed or extended for mobile app usage.

Either a high performing emulator or many handsets will need to purchased for testing. It may be best to consume both; emulators for development to do quick testing and testing team to use native hardware (hardware still needs to be purchased). Smart Bear also offers a large mobile app testing environment that is scalable that may be worth investigating (licenses will need to be purchased).

Timeline and budget are a high priority and the first release target, iOS vs. Android, still needs to be identified – concurrent development pushes the project to two parallel teams.

## Rationale

Since Chat Away has expressed interest in supporting both Android and iPhone platforms code will need to be written as to be compatible. Android SDK is Java-based and iOS is Objective-C or Swift. There are some tools available to do cross-platform coding but these may cause delays and budget overruns if errors are not easily traced from developed code to native code.

Furthermore, budget being a primary concern looking at 2 concurrent teams may be a costly option – it may be more cost effective to multi-skill a high functioning team or only develop on one platform at a time (Chat Away to prioritize). This duplication issue also extends to testing upon multiple hardware types - which may mean emulators are the preferred approach – licenses will be priced and made available upon final decisions.