**Week 1**

Sunday 5/24

Updated to Xcode 6.3

* Resolved 2 GTL YouTube errors relating to nil comparisons

Monday 5/25

Brainstormed and wrote document “Work to Do”

* Product, Development, Hiring, Marketing

Researched using git with Xcode

* .gitignore files
* Practiced by placing SamvitJainCV on version control

Tuesday 5/26

Investigated FB expired access tokens bug

* Tried setting an active FB session as current session

Reading from address book (AB)

* Adapted sample code from Apple’s documentation to select/display single contact’s info
* Wrote code for saving name, phones (mobile + iPhone), and emails for all contacts

Pushed SamvitJainCV to GitHub

Wednesday 5/27

Integrated address book access in sign up flow

* Finished writing logic for extracting data from address book
* Saved address book info to Parse on account creation
* Changed linkWithFBVC to findContactsVC
  + Removed linkWithFB button and changed view text
* Wrote logic to determine LMU users among AB contacts

Thursday 5/28

Added AB contact suggestions code to Data.m

* Parse query for LMU users among contacts not included in friends or request lists
* FB suggestions loaded after address book suggestions

Initialized local git repository for LinkMeUp

* Created .gitignore file
  + Determined appropriate contents for Xcode 6 project
* Made several commits relating to project folder reorganization
  + Deleted Pods
  + Deleted some Echoprint materials

Posted job to Seattle Android Developers group on LinkedIn

Wrote Jobs page for LinkMeUp website

Friday 5/29

Pushed LinkMeUp to new private Github repository

* Reorganized folder, placing Replaced Files in subfolder of Classes
* Pushed several commits

Tested SMS sending with MessageUI Framework

* Could compose message, but failed to send

Fixed dequeueReusableCellWithIdentifier bug in contactsVC

Created SMS\_links branch in local git repository

Alphabetical organization of contactsVC

* Added index to contactsVC table
* Began alphabetical sectioning with NSPredicate filtering

Searched for Android developers through LinkedIn Recruiter Lite (Premium)

* Search by region, UW affiliation, and graduation date
* Sent InMail to 3 candidates and starred 10 others

Saturday 5/30

Rewrote contactsVC

* Introduced (NSMutableArray \*) tableContent to encapsulate all data and UI state info
  + Documented internal structure in contactsVC.m interface
* Factored out state toggling behavior and checkbox tagging into separate methods
* Removed All Friends option

Replaced expired development certificate

**Week 2**

Sunday 5/31

Moved AB data read/save function from LinkMeUpAppDelegate to Data.m

* Introduced local storage of AB data
  + Changed suggestions code to use local data
* Disabled FB suggestions

Committed changes to branch SMS\_links

Sending to non-LMU users

* Wrote logic for determining list of contacts that are not LMU users
* Refactored phone number comparison methods to Constants.m
  + Only two phone number variants considered - with and without country code
* Tried to resolve contactsVC dequeueReusableCellWithIdentifier bug
  + Inconsistency between cell and checkbox state
    - Outlined cell/clear checkbox and clear cell/green checkbox
  + Tracked indexPath and UIControl state of checkboxes across selection/deselection
  + Resolved by creating new cell every time in –cellForRowAtIndexPath
* Displaying LMU friends and non-user contacts
  + Contact added to link’s receivers field only if LMU user
  + Tried to use contact[@“objectId”] == nil comparison to determine whether contact is PFUser (user) or NSDictionary (non-user)
    - Comparison yields nil for PFUser as well as NSDictionary
  + Resolved by populating tableContent in two separate iterations
    - Non-user contacts listed after LMU friends

Committed changes to branch SMS\_links

* Multiline commit message with open single quotes

Contacted Shock Family about launch screen designs

Monday 6/1

Contacted Android developers through LinkedIn Recruiter

* Sent InMail to 5 candidates and PM to 1
* Revised and finalized message template

Added field @“nonUserContact” = @YES to non-user contact NSDictionary

* Tests whether field is nil to determine if LMU user
* Sorts array of all contacts and populate tableContent in one iteration
* Displays detailTextLabel “LinkMeUp” if app user

Tested +(BOOL)comparePhone1: withPhone2:

* Fixed variable name ambiguity

Changed PFQuery limit of 100 objects to 1000 for relevant Parse queries in Data.m

Reverted to populating tableContent in two iterations

* LMU friends and non-user contacts now sorted separately by name
  + LMU friends additionally sorted by username
  + “Name else username” sort descriptor not implemented

Pushed branch SMS\_links to GitHub with -u (--set-upstream) option

Researched sending text messages to multiple recipients without presenting Messages UI

* Sending SMS from User A to User B through Twilio

Tuesday 6/2

Messages UI presented on selecting non-user contact

* Constructs YouTube link if video
* Appends user annotation and “Sent via LinkMeUp, available at …”
  + Tried making LinkMeUp an HTML link to App Store
* (NSIndexPath \*) lastSelected field
  + Deselects recipient if text message cancelled
  + Takes to inbox if successfully sent

Considered UI flow for multiple non-LMU users and LMU friends/non-user combination

* Researched app deep linking

Sent InMail to 3 Android developers candidates

Obtained @linkmeupmessenger.com email domain through Google Apps for Work

* Created samvitj@, jobs@, and support@
* Updated website

Made LinkedIn page for LinkMeUp

Fixed build error in SamvitJainCV by targeting iOS 8 only

Learned Swift through Apple Guided Tour and Playgrounds

* Completed tutorial up to Functions and Closures
* Explored optional chaining, nil coalescing, type casting, and closure syntax

Wednesday 6/3

Committed and pushed changes to SMS\_links

* Tried out git checkout master command

Researched sending from external service using user’s phone number

* Tried to configure Twilio account/Parse cloud code (main.js) to send verification text from “LinkMeUp” instead of Auburn, WA number

Created two different text messages depending on whether user specifies link annotation

Added activity indicator to searchResultsVC

Committed and pushed changes to SMS\_links

* Used git commit -m amend “…” to revise previous commit message

Researched messaging to multiple recipients individually with Messages UI

Developed and implemented UI flow for selecting/sending to multiple users/non-users

* -animateSendButtonInDirection method written
* Four cases considered, depending on whether 1) user or non-user is selected and 2) if users previously selected
  + Created anyContactsSelected method which takes function argument to determine if any contacts selected, any users selected, or any non-users selected
* MFComposeMessageVC slow and laggy on iPhone 5/iOS 7

Tested on iPhone 6/iOS 8

* Found/resolved bug in pendingRequestsQuery
  + Nil assignment to (NSMutableArray \*) newPendingRequests for deleted user
  + Did not investigate stack trace for crashing/freezing thread
* Learned that ABAddressBookCreateWithOptions()returns non-null value even when access permission has not been granted
  + Data loading methods proceed as if address book is in fact empty

Wrote logic for presenting Messages UI for multiple non-user recipients

* Introduced queue nonUsersSelected
* Problem in presenting MFMessageComposeVC multiple times in succession (iPhone 6)

Thursday 6/4

Changed and finished UI flow for selecting/sending links to users/non-users

* Removed nonUsersSelected queue
* Selecting LMU users disables all non-users
  + Can send link to either 1 non-user or multiple LMU users

Contacted 2 more Android developer candidates

* Customized message extensively

receiversData for link sent to non-user contact

* Created isText field on Link class to record if link sent to in-app users or as text message
* Displayed alias name “Text sent to \_” in inboxVC

Committed and pushed changes to SMS\_links

Completed Objects and Classes section of Apple’s Guided Tour of Swift

Committed and pushed changes to SMS\_links

“Recents” section in contactsVC table view

* Considered dynamically calculating recent link recipients from sentLinkData
* Introduced PFUser property recentRecipients in Parse and Data.m
* Updated logic in contactsVC (-postLinkAndSendPush, -populateTableContent, and –viewForHeaderInSection)
  + Remove redundant saveInBackgroundWithBlock call in -postLinkAndSendPush

Committed and pushed changes to SMS\_links

Friday 6/5

Finished “Recents” section in contactsVC table view

* Content for “Recents” section set in –populateTableContent
  + Resolved "NSInternalInconsistencyException, Key “isText” has no data, Call fetchIfNeeded before getting its value” error message/crash by clearing incorrect data in Parse column recentRecipients
* Counterpart for cell in “Recents” section selected with call to [self.tableView reloadData]
* recentRecipients array reversed in table view to present most recent first
* “Recents” section skipped in -postLinkAndSendPush to prevent double sending
* Set section index title for “Recents”
  + Unicode character for watch defined in Constants.h

Committed and pushed changes to SMS\_links

UI improvements to contacts VC

* Footer to tableView added when send link button present
* Created subclass of UITableViewCell
  + Main text label shortened (text automatically truncated with ellipses)
  + Image view added to all cells
    - App icon for LMU users
    - Messages icon for non-users

Committed and pushed changes to SMS\_links

Sent InMail to 2 Android developer candidates

Started work on labeling Send Link button with all link recipient names

* Introduced selectedRecipients field in contactsVC (and -updateRecipientList method)
* Added UITextView in contactsVC.xib file and started –updateSendButtonText method

Found bug in “Recents” section logic

* Tested on iPhone 6
  + Selecting and sending to non-user contact adds extra (wrong) contact to Recents section
  + Sending to multiple LMU users adds duplicate entries
* Issues identified
  + Selected state not set to YES for non-user contacts in –toggleStateForIndexPath before Messages is launched
  + recentRecipients field saved in loop instead of outside in –postLinkAndSendPush

Saturday 6/6

Fixed bug in “Recents” section log

* Caused by accidently modifying self.sharedData.recentRecipients instead of self.selectedRecipients in –updateRecipientList (new method)
* Moved code saving recentRecipients to Parse out of for loop
* Cell state set before message compose interface displayed in –toggleStateForIndexPath
  + Used [self.selectedRecipients count] to determine table view state

State variable nonUserSelected replaced by use of (BOOL) nonUsersDisabled and self.selectedRecipients

Tested memory usage of contactsVC table view with Instruments

* Insignificant compared to memory usage of inboxVC, linkVC, and searchResultsVC

Committed and pushed changes (twice) to SMS\_links

Continued work on Send Link button label

* Tried disabling vertical scroll by setting button contentSize
* Introduced programmatically created textView to replace recipientTextView created in IB

Researched best practices for declaring dictionary keys as constants

**Week 3**

Sunday 6/7

Setup GitHub repository LinkMeUp-Android for Android app

Researched marketing components and strategies

* YourAppReport.com checklist and packages, 148apps.com, and Quora answers

Decided on Adobe Photoshop (vs. Gimp) for app launch screen

Created scrollable label containing recipient names for Send Link button

* Embedded UILabel inside UIScrollView
* Set UIScrollView contentSize and UILabel frame to expand dynamically with text length
  + ScrollView contentOffset dynamically updated to show right end of name string
* Used first names if possible
  + Introduced key @“first\_name” to address book contacts’ NSDictionary

Committed and pushed changes to SMS\_links

Started reading objc.io/ document “Android 101 for iOS Developers”

Improvements to Send Link button scrollable label

* Disabled touch event causing button press on left end of button
  + Adjusted scrollView frame to begin at left end of button
  + Set up method –updateSendButtonLabel with global constants leftOffset and rightOffset declared in Constants.h
* Allowed touch event on blank space to right of name string to cause button press
  + scrollView frame also set to match length of name string, if shorter than original frame width
* Tried to set textLabel highlighting behavior on click to match that of UIButton title label
  + Set highlightTextColor and declared selector and target method for UIButton
  + Could not detect event to unhighlight textLabel at right time

Searched for Android developers in local network

* Sent InMail to 2 more candidates

Monday 6/8

Read “The Right Way to Ask Users for iOS Permissions” (LinkedIn)

Added case to findContactsVC and verificationVC dismiss flow for existing user

* Existing user case not tested

Interview (phone screen) with Calvin Hsieh

Matched textLabel highlighting behavior to Send Link button titleLabel highlighting

* Implemented target methods for touch events DragExit and DragEnter
* Animated change in textLabel transparency
* Tried enabling button press when Send Link button textLabel/scrollView tapped
  + Experimented with UITapGestureRecognizer and its delegate
  + Considered using touchesBegan: withEvent: to detect beginning of touch
    - Requires subclassing UIScrollView, so decided against it

Committed and pushed changes to SMS\_links

Changed SMS link content

* Removed phrase “Check out…” from blank annotation case
* Added short Twitter download link to end of text message
  + Tried Apple short link www.appstore.com/linkmeup
    - Didn’t work on mobile
  + Tried itms:// to link directly to App Store (avoid redirect)
* Researched adding HTML link and embedded YouTube video to text message

Push notification permissions flow

* Introduced pushNotifViewController
  + Added informative message explaining why notifications are important to user
  + Added iPhone 6 screenshot of Banner notification
    - Configured for iPhone 6, but not iPhone 4 or 5
    - Linker error when running app on iPhone 5s simulator
* Moved permissions request from DefaultSettingsVC to pushNotifVC
  + Added boolean field to PFUser called didAskPush
  + pushNotifVC presented after first sent link or after second app launch, whichever comes first

Committed and pushed changes to SMS\_links

Tuesday 6/9

Moved presentation of push notif screen in inboxVC to occur after links finish loading

Introduced macros detecting iPhone 4 - 6P in Constants.h

* Used to conditionally set screenshot frame in pushNotifVC
* iPhone 5, 6, 6P Simulator screens all detected as iPhone 5

Duplicate symbol for architecture i386 linker errors when building for simulator

* Resolved by declaring consts in Constants.h as static

Tested pushNotifVC screenshot on iPhone 5s simulator and inboxVC presentation on iPhone 4s device

Reorganized Constants.h/.m files

* Declared consts as extern in Constants.h and defined in Constants.m to avoid multiple imports and follow best practices
* Added #pragma mark section headers
* Began declaring NSNotification names and dictionary keys as string constants.

Committed and pushed changes to SMS\_links

Introduced better macro definitions for detecting iPhone 4 - 6P

* New definitions didn’t work either (iPhone 6 device detected as iPhone 5)
* Resolved issue – missing iPhone 6 launch screen results in iPhone 5 screen size setting
  + Temporarily disabled iPhone 6 and 6P macro options

Push notification screen for users who have denied access permission previously

* Created method in AppDelegate called –getEnabledNotificationTypes
  + Contains iOS version conditional logic for determining enabled notifications previously contained in -applicationDidBecomeActive
  + Returns UIUserNotificationType
* Introduced (and tested) alert in pushNotifVC requesting user to turn on push notifications from Settings panel
* Introduced NSInteger field to PFUser called numberPushRequests
  + Push notification screen presented if UIUserNotificationType is None and if numberPushRequests < PUSH\_REQUESTS\_LIMIT
  + Began replacing old logic involving didAskPush

Wednesday 6/10

Conditional presentation of pushNotifVC

* Notifications must be turned off – UIUserNotificationType is None (6/9)
* numberPushRequests < PUSH\_REQUESTS\_LIMIT
* Didn’t already present pushNotifVC in this PFUser session
  + Introduced NSUserDefaults field to track if pushNotifVC already presented
  + Not working – didAskPushThisSession always @NO in -launchReturning

Committed and pushed changes to SMS\_links

Enabled sending to suggested friends and friend request senders in contactsVC

* Section “LMU users” added to contactsVC table if number of LMU connections small

Committed and pushed changes to SMS\_links

Interview (technical) with Calvin Hsieh

Finished push notification permission and re-request flow

* Fixed NSUserDefaults bug - didShowPushVCThisSession now set in AppDelegate instead of viewDidAppear of DefaultSettingsVC (to prevent reset)
* Changed pushNotifVC screenshot to New Link image (instead of Loved Link)
* Returns to app only if user selects *some* option on default push notification alert view
  + Used two NSUserDefault fields in AppDelegate to track whether app temporarily exited (alert view shown)
  + If default alert view not shown, custom alert view presented after 1 second
  + Tested flow on iPhone 4s, iPhone 5s (simulator), and iPhone 6

Committed and pushed changes to SMS\_links

Searched for Android developers on LinkedIn

Thursday 6/11

Introduced conditional App Store link to text message

* Appends App Store link if greater than SEVERAL\_RECENTS recent contacts

Address book permission and re-request flow

* Introduced field numberABRequests and macro MANY\_CONNECTIONS
* Created method in friendsVC to determine if findContactsVC should be presented
  + Method call in –viewWillAppear, then moved to -viewDidLoad to avoid warning
  + Create NSUserDefault didNotYetEnterFriendsVC to avoid presentation to new user during first visit to friendsVC

Sent InMail to 7 Android developers

Address book screenshot

* Introduced screenshots AddressBook4 (iPhone 4) and AddressBook5 (iPhone >=5) to illustrate permission requested

Investigated crash on background thread during signup flow in findContactsVC on line

if (ABAddressBookGetAuthorizationStatus() == …NotDetermined)

* Used presence of shared data model to determine if findContactsVC presented in signup flow (as opposed to friendsVC)
  + Replaced by use of NSUserDefault didNotYetEnterFriendsVC
  + Crash still persists

Friday 6/12

Tested sign up flow – no crashes in findContactsVC

Moved presentation of findContactsVC to –viewWillAppear in friendsVC

Modified address book and push notification custom alert view message

Presentation of findContactsVC in contactsVC

* Introduced –hasContacts method
  + Fixed mistake in –didFinishLoadingConnections logic
  + findContactsVC presented after 1 second of viewDidLoad if permission not granted, less than AB\_REQESTS\_LIMIT requests, and 0 contacts

returnAndLaunch logic in findContactsVC

* Check if presenting view controller is verificationVC to determine if in sign up flow
* Dismiss presenting view controllers appropriately

Changed confusing didNotYetEnterFriendsVC property to didEnterFriendsVC

* findContactsVC presented in viewDidLoad of friendsVC if old user
* findContactsVC resented on second viewWillAppear if new user

Committed and pushed changes to SMS\_links

Added Documents folder to master and merged branch SMS\_links into master (3-way merge)

Reintegrated Facebook connections as a source of friend suggestions

* Parallel queries for LMU users among address book contacts and among Facebook friends in –loadSuggestions method in Data.m
* When both queries finished, suggestions lists merged
* Introduced sharedData property hasAddressBookAccess

Committed and pushed changes to master

Tried to configure iPhone 6 launch screen

* Deleted derived data, reset iPhone, checked that “Launch Screen File” was unselected

Researched mobile music streaming services and SoundCloud API

Posted job to Lakeside Hackers group and messaged Newport Computer Group admin

Saturday 6/13

Committed and pushed changes to master

Posted job to Newport Computer Group and messaged Skyline groups admin

Created branch single\_search

Removed send song option from searchViewController

Tested different search bar configurations and searchVC UI layouts

* Tried orange header and using a navigation bar
* Set searchVC background to white

Fixed button array bug/crash in friendsVC

* Created initializeSuggestionButtons and initializeRequestButtons methods to replace lazy instantiation of buttons (which didn’t work)

Researched mobile music streaming services – Spotify, Rdio, Last.fm, Bop.fm

Posted to Skyline Class of 2016 Group and replied to applicant questions

**Week 4**

Sunday 6/14

Tried to configure iPhone 6 launch screen by using xib file

Researched bop.fm

Search bar and searchVC appearance

* Set autocomplete row height based on device type for new
* Experimented with different color schemes (header/screen/button)
* Experimented with different search bar styles and positions
* Activity indicator for autocomplete results
  + Added to searchDisplayController tableView to replace “no results”
  + Stopped animation on main thread after autocomplete results load

Investigated blocking of user interface when sent and received links load (especially pronounced on LTE on iPhone 6)

* Tried loading link art on low priority concurrent queues (instead of default)

Tried to configure launch screen by also setting iPhone 5 screen and using Apple screen names

Messaged Interlake and Tesla High Facebook group admins to post hiring message

Committed and pushed changes to single\_search

Monday 6/15

Changed simulated size of all xib files to iPhone 4-inch

Enabled Launch Screens for iPhone 5 and 6

* Added UILaunchImages array to LinkMeUp-Info.plist file

Experimented with search bar text field

* Found text field via by traversing subviews of UISearchBar in –layoutSubviews method
* Customized text field layer.borderColor, borderStyle, frame, and font

Experimented with animation of search bar

* iOS 7 – no animation occurs if frame animated in search bar delegate methods (beginEditing, endEditing) or keyboard notification delegate methods (willShow, WillHide)
* iOS 8 – animation glitch; search bar returns to original position after animation

Enabled Launch Screen for iPhone 4

Configured DefaultSettingsVC background to match Launch Screens

* Added full screen subview of appropriate size (using IS\_IPHONE\_5 macro)
* Adjusted loading/welcome label frame in sign up flow

Compared YouTube VEVO and syndicated video queries

* VEVO videos (apparently) now syndicated, so included in both lists
* Removed videoSyndicated = @"true" in non-VEVO query and could not find unplayable video (among queries for “maroon 5”, “kendrick lamar”, and “taylor swift” with maxResults = 10)
* Set maxResults for syndicated query to 15 if iPhone 5 or above
  + Tested by playing videos and loading ~200 links – no memory pressure warning

Stanford CS 193P, Winter 2015

* Finished Lecture 1: Logistics, iOS 8 Overview (~30 min)
* Started Lecture 2: More Xcode and Swift, MVC (~10 min)

Tuesday 6/16

Compared GTLQueryYouTube results for syndicated = any, true with web results

* Top 10 results for “stephen colbert” same whether syndicated = any, true
  + Matches web results, though order is not the same
* Top 30 results for “maroon 5” when syndicated = true *excludes all VEVO videos*
* Top 10 results for “key and peele”, “epic rap battles”, and “collegehumor” match web results when syndicated = true (with slight variations in order)

Send to self option

* Set display name to “me” in inboxVC and name + “ (me)” in contactsVC
* Self receiver data entry not presented in sentLinkVC message table
  + Resolved fast enumeration bug by adding break statement after removing object

Removed contact from “LinkMeUp Users” section in contactsVC if already present in “Recents”

Disabled messages button in sentLinkVC toolbar if link is text message or only sent to self

Moved recent recipients loading statement to beginning of –loadSuggestions method in Data.m

* Resolved bug in which “Recents” section would be empty if no address book access

Committed and pushed changes to single\_search

Tried to resume YouTube audio playback after pause on app exit

* Tried listening for AVAudioSessionInterruptionNotification – never called

Interview (phone screen) with Sean Yu

Tried to find API information for trending videos on YouTube

Changed push notification screenshot to image of badged app icon (PushNotifBadge.jpg)

Experimented with search bar height and drop shadow

* Found UIImageView subview of searchDisplayController.searchResultsTableView
* Tried to adjust frame in viewDidAppear and –searchBarShouldBeginEditing

Continued watching Lecture 2: More Xcode and Swift (~20 min)

Messaged ICS Class of 2015 admin

Wednesday 6/17

Brainstormed marketing and release work to do

Redesigned searchVC

* Introduced magnifying glass icon and multiline caption
  + Tested three different images and adjusted image/caption colors
* Moved YouTube search bar to top of view (adjacent to header) and enabled gray border
* Removed (hid) search bar button
* Animated icon and caption on search bar click
  + Screen content moved up and down in -searchBarShouldBeginEditing and –searchBarShouldEndEditing delegate methods
  + Configured animation parameters for iPhone 4 and iPhone 5+

Interview (technical) with Sean Yu

Addressed some special cases involving icon and caption animation

* Scroll gesture on searchDisplayController table view results in call to –searchBarShouldEndEditing, but should not shift content back
  + Content shifted back only if searchDisplayController is not active
  + This change breaks correlation between up/down animations
* Introduced BOOL shiftedContent to track state of screen contents
  + Content position reset in viewWillAppear via –resetScreenContents
* Click on header dismisses keyboard, but –searchBarShouldEndEditing not called so content does not shift down (as it should)
  + Screen contents moved down in –handleTap if tap falls outside table view
* Remaining case: screen contents move down after autocomplete result is selected (due to call in –handleTap) but should not for best user experience

Thursday 6/18

Fixed contactsVC sendLink button bug

* Selecting LMU user, going back to searchResultsVC, and returning to contactsVC previously caused sendLink button to disappear
* Instead of animating button frame on selection/unselection, animated autolayout constraint

Addressed undesirable shift down of searchVC content on hitting “search”

* Screen contents only shifted down in -handleTap if user taps in header view
  + Used –locationInView and -hitTest:tappedPoint to determine view tapped (required because tap gesture recognizer is added to *superview*)
* Autocomplete entries now easier to select (added benefit)
  + Table view and keyboard not dismissed if UITableViewCellContentView selected

Tried to address searchDisplayController table view scroll behavior

* Scrolling table hides keyboard but leaves content shifted up (undesirable)
* Returned NO in –searchBarShouldEndEditing delegate method if searchDisplayController active
  + Caused undesirable, irreversible disappearance of keyboard on leaving and returning to searchVC

Fixed bug in “Recents” section of contactsVC

* Recent LMU recipients not displaying if LMU Users section present
  + Recents section previously populated by searching for user in tableContent and creating pointer to existing contactAndState dictionary
  + Added logic on Tuesday (6/16) in which entries present in recentRecipients are omitted from “LMU users” section
* Resolved by creating new contactAndState dictionary for LMU users in “Recents” section if “LMU Users” section present (total number of contacts is small)

Addressed slow link art loading by replacing synchronous [NSData dataWithContentsOfURL:] with [[NSURLSession sharedSession] dataTaskWithURL: completionHandler:]

* Link art now loads much faster and without (noticeably) blocking UI
  + Loading 28 links – 1.13 seconds with LTE and 0.03 seconds with Wifi
  + Loading 203 links – 5.1 seconds with LTE and 0.2 seconds with Wifi
* Researched proper usage of NSURLSession

Researched and experimented with lldb Xcode debugger

* Printed object values (with po command) to determine crash of occasional crash after logging out and quickly logging in again with Facebook

Researched caching on iOS file system

* Learned that data that needs to persist between app launches but can be recreated (downloaded) as needed should be stored in Library/Caches/

Committed and pushed changes to single\_search

Friday 6/19

Replaced all (active) instances of dataWithContentsOfURL and NSURLConnection with NSURLSession in searchVC, songInfoVC, and searchResultsVC

Tested common flows and user actions

* Tested signup flow on iPhone 6 with permissions on, denied, and not determined (for push notifications)
* Tried sending/accepting friend requests between iPhone 4 / iPhone 6
  + Push notifications did not trigger content load while in app on Badge push notification setting
  + Reverted to repeating, 10-second interval updates for Badge setting

Committed and pushed changes to single\_search

Set lastSenderUpdateTime on master link copies to match new user account creation time (instead of master link creation time)

Replaced old, photoshopped launch screens with new ones from IconShock

* Removed unused image folders (Login/Signup Background and Logos)

Committed and pushed changes to single\_search

Changed sendLink button behavior in contactsVC to trigger button action if names label pressed

* Tried to configure long press gesture recognizer to detect *touch* event and highlight text label – delegate method not getting called

Changed email verification setting to YES in Parse

* Configured SPF record in Weebly website settings to prevent spam filtering of emails from parseapps.com
* Uploaded user\_management file to hide Parse.com from app users during email verification/reset process, and instead display page on LinkMeUp domain

Researched screenshots and add message function of competing apps Rithm and PingTune

Changed logic in -handleTap: in searchVC to address UX bug

* Instead of testing if touch landed in header, now test if touch landed in any view except table view or cell content view

Committed and pushed changes to single\_search

Tested poor network connection behavior

* Discovered crash in friends tab when running app with poor Wifi connection
* Read Apple documentation on Real-World Networks
* Learned about and tested Network Link Conditioner tool

Saturday 6/20

Fixed bug/crash in friendsVC seen in poor Wifi connection after replicating with Network Link Conditioner

* Request/suggestion buttons now initialized in viewDidLoad regardless of whether loadedAllConnections is true
* Buttons re-initialized in delegate method -didFinishLoadingConnections if mismatch between number of contacts and number of associated buttons
* Introduced constants for NSNotifications loadedFriendRequests, loadedFriendList, and loadedConnections

Change data reload time interval to 30 seconds in AppDelegate.

Researched and tried implementing NSURLSessionConfiguration to set up NSURLSession’s in-built cache usage policy

* Followed Apple Documentation to setup defaultConfig object with cache path at /Library/Caches/ directory and NSURLRequestUseProtocolCachePolicy
* Sample code first placed in –loadReceivedLinks and –loadSentLinks
  + Warning messages logged
    - \_CFURLCache:RecreateEmptyPersistentStoreOnDiskAndOpen: create tables index failed
    - ERROR:\_CFURLCache:CreateTablesAndIndexes pragma auto vacuum - database is locked. ErrCode: 5
* Moved code first to AppDelegate (required importing AppDelegate in Data.m, which caused compiler errors) and then to separate initialization function in Data.m
* No noticeable speedup with using NSURLSession’s sessionWithConfiguration: self.defaultConfig over sharedSession
* Disabled and moved code to Data Caching section in Data.m

Committed and pushed changes to single\_search

Browsed top 100 songs, comedy videos, and movie clips to include in screenshots and as prepackaged links

* Found Uptown Funk (feat. Bruno Mars), Ghost (Ella Henderson), Waves (Mr. Probz), and Riptide (Vance Joy)
* Changed two prepackaged links
  + Halo | Beyonce to Ghost | Ella Henderson
  + Thank You | Dido to Waves | Mr. Probz

Investigated broken email reset/verification links

Fixed crash when loading data in account Test

* Empty strings assigned to receiverData name and identity fields if null

Created inboxVC screenshots with Uptown Funk, Sugar, Apple Watch, and Stolen Dance

* Compared simulator vs. device screenshots
* Tested with frames on mint and orange backgrounds

Added case to -handleTap method in searchVC

* Tap on search bar cancel button after returning from searchResultsVC no longer dismisses table view (instead, clears search bar)

Accidently amended changes to previous commit rather than creating new commit

* Made corrections to incorrect re-commit with further amends
* Used git reflog to view unabridged repo history
* Used git reset --soft HEAD@{3} to return repository to state before mistaken amend
* Readded project and created new commit
* Used git push origin single\_search –force to push changes to public repo (and rewrite its history)

**Week 5**

Sunday 6/21

Looked for videos to include as prepackaged links

* Looked through Inglorious Bastard movie clips and 2014 and 2015 Super Bowl ads
* Found Elon Musk: How I Became the Real ‘Iron Man’, Jennifer Lawrence on David Letterman, and Kim Kardashian T-Mobile ad

Sent new prepackaged links from LinkMeUp H.Q. account

* Tested new account creation on iPhone 4 and iPhone 6

Created employment contract

* Started free trial with LawDepot
* Defined start and dates, job description, compensation, place of work, vacation time, and confidentiality/non-compete agreement durations

Created “Select Video” screenshot

* Found Fun ft. Chris Brown by Pitbull
* Tried to change Chalkboard SE font to Gill Sans
* Created screenshot with proper push notification configuration on iPhone 4s, iPhone 5s, iPhone 6, and iPhone 6 Plus simulators

Brainstormed work to do and required time for Android application

Monday 6/22

Looked for movie clips to include as prepackaged links

* Looked through Dark Knight trilogy, Inception, and Skyfall
* Found Inception ending scene and 500 Days of Summer trailer

Sent revised list of prepackaged links from LinkMeUp H.Q. account

Researched salary for high school software engineering interns

Staged and created Inbox, Search, Send To, and Link screenshots

* Set up Sent tab in Test account inbox with links/reactions for Inbox screenshot
* Compared Select Video screenshot in gray and white background
  + Decided on gray background
  + Decided to use Search screenshot instead for second mobile App Store screenshot
* Researched screenshot requirements, guidelines, and recommendations
* Set up address book on iPhone 4 and 6 for Send To screenshot

Pushed changes to single\_search

Merged branch single\_search into master and pushed changes to remote

Created captions and frames for all screenshots

* Changed Inbox screenshot to include better title for Kim Kardashian Super Bowl ad
* Used Uptown Funk for Link screenshot instead of Love on Top
* Finalized captions for all 5 screenshots
* Helped develop frames and adjust caption positions for iPhone 4 / iPhone 6 screenshots

Updated App Store description document to focus on video sharing

Emailed Sean Yu to confirm in person meeting on Tuesday 6/23

Contacted Ishan Narula on Facebook and email, describing LinkMeUp internship opportunity

Committed and pushed changes to master

Uploaded iPhone 4 and iPhone 6 screenshots to iTunes Connect

* iPhone 6 screenshots with alpha channels and transparencies initially rejected
* Still pending – frames for iPhone 5 and iPhone 6 Plus screenshots

Tuesday 6/23

Prepared for in person meeting with Sean Yu

Met with Sean Yu and made summer internship offer

Update Version 2.0 submission info on iTunes Connect

* Added iPhone 5 and 6 Plus screenshots
* Updated Name, What’s New in This Version, Description, Copyright, and Keywords

Committed and pushed new screenshots to master

Update text message link content

* Removed condition (number of recent recipients > MANY\_RECENTS) on including App Store link
* Moved annotation to beginning of message (in front of URL)
  + Considered adding line break if last character of user annotation is punctuation mark and hyphen otherwise

Tested sign up flow on iPhone 4 (phone reset)

* Email verification switched to YES, but with Parse pages displayed
* Address book and push notification permission screens tested

Read about analytics and App Store keywords

* Modified App Store keywords to include “chat”, “free”, and “text” instead of “social” and “friends” after searching for popular messaging apps on https://sensortower.com/
* Read about campaign links on iTunes Connect
  + Began creating Google AdWords campaign for app to better understand Google users’ search behavior

Interviewed Ishan Narula (phone screen)

Finalized employment contract and sent to Sean Yu

* Tried creating contract with FormSwift
  + Contained unfavorable provisions
* Modified LawDepot contract on MS Word, deleting some bullet points and adjusting numbering accordingly
  + Considered highlighting relevant clauses
  + Instead created list of important sections to read
* Started DocuSign free trial
  + Tested by sending contract draft to samvit.jain@gmail.com
* Sent finalized PDF copy of contract via DocuSign link to Sean

Wednesday 6/24

Replied to Sean’s questions about Employment Contract

* Did more research on non-compete agreements

Emailed Mr. Minsk to get input on non-compete clause

Connections reloaded in findContactsVC if address book access granted (existing users)

Added PFUser column hasAddrBookAccess to track user's address book access permissions state

* State updated in Data.m's -updateAddressBookStatus method
* Used NSNumber numberWithBool to encase data model property as object for Parse

Addressed push notification alert view issue/crash (seen on Mom’s iPhone 4 / iOS 7.1.2)

* Removed call to dismissAndReturn from -didFailToRegister delegate method
  + Considered using additional NSUserDefault flag to track whether –didFailToRegisterForRemoteNotifications was called
* Moved code clearing NSUserDefault flags to dealloc
* Cleared NSTimer and set alert view delegate to nil in viewDidDisappear
  + Required creating view controller properties self.alertView and self.alertController
  + Properties initialized in viewDidLoad, instead of presentCustomAlertView
* Tested changes
  + Downloaded iOS 7.1 simulator
  + Tested pushNotifVC flow on iPhone 4s simulator (iOS 7.1 and iOS 8.3), Mom’s iPhone 4 (iOS 7.1.2), my iPhone 4s (iOS 7.1.1), and Ananya’s iPhone 6 (iOS 8)
  + Delay in calling AppDelegate method willResignActive after default alert view presented on Mom’s iPhone
    - Results in presentation of both default and custom alert views
    - Problem not present in last test on Mom’s iPhone
  + Tests on simulators / other phones successful

Committed and pushed changes to master

Set up Android development environment

* Updated Java Development Kit (jdk) and Runtime Environment (jre)
* Downloaded Eclipse
* Installed Android Developer Tools (ADT) and SDK packages

Researched production vs. development Parse databases and git workflows

* Read articles on git-flow (Vincent Driessen) and GitHub flow (Scott Chacon)
  + Learned about use of --no-ff flag to create separate merge commit

Modified non-compete clause in Employment Contract

* Defined “project or venture in competition” more specifically
* Excluded employment on an unrelated project at a big company from scope of clause
* Considered specifically defining nature of LinkMeUp’s business (music and video messaging, link sharing, spreading third party-generated content) in contract

Disabled NSLog messages from code, if not running in debug mode

* Added preprocessor macro DEBUG = 1

Committed and pushed changes to master

Prepared project for submission

* Change version and build to 2.0
* Created, validated, and exported archive as .ipa file

Explored Android codebase

* Viewed LinkMeUp-Android repository files on GitHub
* Tried to build Android project locally

Installed GitHub GUI for Mac

* Added and explored three local repositories

Thursday 6/25

Emailed Mr. Minsk modified non-compete agreement

Went through NSLog statements to ensure no critical code commented out in release version

Researched App Store name and keywords

* Changed named to “LinkMeUp!” for better branding

Uploaded archive to iTunes Connect and submitted application

Committed changes to master and tagged as v2.0

* Researched tagging and pull requests

Started implementing git development/production workflow

* Created branch develop via git checkout -b develop master
* Cleared unwanted, unstaged change via git checkout -- <filename>

Pushed archive commit to remote master

Created PowerPoint for Sean Yu

* Moved out of Documents folder to avoid git tracking of confidential information

Revised and sent new employment contract

* Modified non-compete agreement again based on Mr. Minsk’s language suggestion
* Created account and document on RightSignature
* Sent for signature to Sean Yu

Researched marketing

* Read about writing Press Releases and creating a Press Kit
* Read about the importance of having an app demo/promotional video
  + Contacted several app video developing services
    - Epipheo, Breadnbeyond, PreApps, AppDemoVideos
  + Found but did not contact
    - Apptamin, RawAppVice, Snappdemo
  + Watched several successful app videos
    - Mailbox, Messenger Valley, Music Messenger
* Created Reddit account

Started work on app video

* Used QuickTime to record iPhone 6 screen videos
  + Added to Documents/Promotional
  + Removed from source control via git rm --cached <filename>
    - Added files of type .mov to .gitignore to prevent future tracking
* Purchased song Waves to use as background music
* Set up iPhone for testing
  + Deleted unwanted sent/received links from Test account in Parse
  + Modified contactsVC contact list in new branch contactsVC-app-video
* Tried to import song into iMovie
  + Could not find timeline
* Downloaded Adobe Creative Cloud (Premiere Pro)
  + Created new project
  + Imported iPhone 6 screencast and Waves into timeline
  + Tried to adjust video frame/aspect ratio

Committed and pushed changes to develop

Friday 6/26

Conducted first day of work orientation for Sean Yu

* Exported data from Parse database and imported into development app LinkMeUp-Dev
  + Tested development app by using Parse keys for LinkMeUp-Dev in code
  + Created separate constants for development and production keys
* Added Sean as collaborator to LinkMeUp-Dev database and Android GitHub repo
* Answered questions on Skype and phone call

Created test app video

* Added iTunes track audio to Video 1 screencast

Started compiling list of beta testers

Exported and uploaded test app video

* Exported higher quality video “AppVideo – Test.mov” with HD1080i preset for QuickTime format
* Created YouTube account for samvitj@linkmeupmessenger (LinkMeUp)
* Uploaded test video to YouTube

Developed actual app video

* Set up account Will Hanson for screencast capture
  + Created account, added friends, sent links
* Shot two videos – “Video - Full” and “Video - Full 2”
  + Spliced videos together, combining best parts
* Changed code in branch contactsVC-app-video to display more VEVO videos
  + Used git stash to save uncommitted changes in branch develop
  + Made changes to branch contactsVC-app-video
  + Reverted working directory to original state via git stash pop
* Exported video “LinkMeUp Video.mov”
* Replaced iTunes track “Waves” with VEVO version audio (longer instrumental)
* Exported video “LinkMeUp Video – 2.mp4”
  + Optimized for web playback by using H.264 format and HD 1080p 29.97 preset

Refined app video

* Reshot horizontal scroll clip
  + Wanted clip with smooth scroll and few/no mistakes while typing message
* Edited ending to include longer movie trailer clip
* Exported video “LinkMeUp Video Final”
  + Researched frame rate, bitrate, and frame blending
  + Selected “Render at Maximum Depth” and “Use Maximum Render Quality”

Saturday 6/27

Read article on use of video for app marketing

* Found out about embedding video service Wisita

Prepared for and shot forwarding clip

* Removed App Store link and changed header of songInfoVC to “Forwarding…” in contactsVC-app-video branch
* Shot “Received Links Pause”, “Forwarding 1”, and “Keyboard Dismiss”
* Decided to edit clips instead of shooting further
* Exported mp4 video with link forwarding

Researched video uploading/embedding and how best to contact bloggers

Set up Google Apps billing

Exported with “match sequence settings” option

* Mpeg video with vertical black bar of 15 pixels on right (624 x 1080)
* Researched how to export video with non-standard dimensions (609 x 1080)

Cut mp4 video with online-video-cutter.com

Uploaded videos to website

* Uploaded mpeg directly to Weebly
  + Pro account required to publicly publish
* Read “10 reasons why you should never host your own videos”
* Decided to embed video hosted by external service
  + Made Wisita account and uploaded video
    - Embedded inline with html code
    - Adjusted dimensions, but resolution poor
  + Made Vimeo account and uploaded video
    - Embedded inline
    - Better resolution

Updated .gitignore with .mp4 and .mpeg format videos

Committed and pushed changes to develop

Contacted Nathan about building LinkMeUp website

Worked on exporting iPhone video with same dimensions as source video

* Exporting with H.264 format and Match source - high bitrate preset produced video of original size (752 x 1334)
* Exported small sample (Frame Test 1.mp4) to test

Researched and produced “Call to Action” screen

* Watched Mailbox and Music Messenger video endings
* Produced still frame in Photoshop
* Added still frame to end of video
  + Contacted ShockFamily about moving icon up in video
  + Exported Call to Action Test 1 and Test 2 and full Video 5

Speed up video in ending to match audio intensity

* Exported Ending Test 1 – 5
  + Edited out long action pauses and button presses
  + Crossfaded text message clips for smooth transition
* Produced Video 6

**Week 6**

Sunday 6/28

Searched for and added two web developer candidates to clipboard on LinkedIn

Uploaded and embedded app video

* Uploaded to Wisita and Vimeo
  + Looked into HD video setting on Vimeo
  + Read about Vimeo Plus
* Added Vimeo embed code to site

Researched app marketing and how to pitch to journalists/app reviewers

* Read article “25 Creative Ways to Promote Your App For Free”
* Learned about promo codes and beta testing
  + Can (should) provide journalists with promo codes to app
    - Before release, but after app is in “Ready for Sale” or “Pending Developer Release” state
  + External beta testers can be invited after Beta App Review
* Started document “Marketing Brainstorm”
  + Listed components of a successful pitch
* Found contact URLs for news and app review sites
  + TechCrunch, Mashable, Gizmodo, Wired, Verge
  + 148apps, Cnet Download, AppStoreApps, iDownloadBlog
* Tried to learn about how Snapchat was marketed

Submitted LinkMeUp for Beta App Review

* Sent invites to family members

Tried to change production app Parse email to samvitj@linkmeupmessenger.com

Looked for replacement for Waves

* Created Pandora station for Waves
* Contacted Sohum

Changed title/subtitle font on app website

Wrote email pitch

* App functionality description and distinguishing qualities
* Promotional materials (screenshots, video, website), promo codes, and launch info
* Short personal bio and contact details

Created Dropbox account for LinkMeUp to use to share screenshots

* Uploaded iPhone 6 screenshots with frames
* Tried to find short Dropbox link
* Tested link, by opening on computer without Dropbox installed

Found and read about appshout! marketing service

Imported Android repository

* Read about git submodules, pull requests, git pull/fetch, and pushing to remotes
* Used git clone https://github.com/SamvitJ/LinkMeUp-Android.git to create/import Android repository on local machine
* Changed Parse keys in res/values/strings.xml to LinkMeUp-dev keys
  + Need to open pull request to incorporate changes in remote

Discussed work to be done in Android

* Explored and listed necessary improvements to Send Link tab

Researched promotional materials

* Read about how to write effective Press Release
  + Read iPhone app news stories on TechCrunch
* Added Media/Press Kit components to “Marketing Brainstorm”

Monday 6/29

Skype call with Sean

* Discussed current state of Send Link tab in Android app and work to do

Looked into uploading high quality video

* Read Vimeo article on optimal Adobe Premiere Pro export settings

Call to action screen

* Sent IconShock png file with guidelines for desired icon position

TestFlight invites and testing

* Sent email invites via iTunes Connect
* Tested app on Ananya’s phone
  + Resolved push notification issue by resetting numberPushRequests in Parse

Helped Sean with pull requests

* Learned that pull request source and destination branches must be different
  + Could not create pull request from local master to remote master
* Explained difference between adding/committing in short Skype call
* Taught Sean how to create/checkout a develop branch via git checkout –b <branch-name>

Meeting with PreApps

Started writing Press Release

* Read app press releases on TechCrunch to get sense for writing style and contents
* Wrote headline and introduction
* Described differentiating features (2 paragraphs) and link messaging (1 paragraph)

Helped Sean with git

* Recommended that Sean install Cygwin and use CLI for git
* Guided Sean in individually adding and committing files to develop branch via git add <file-name> | git commit –m

Tested Sean’s changes and read about merging pull requests

* Used git fetch origin | git branch -r | git checkout -b sean-dev origin/sean-dev to download Sean’s changes and build his changes
* Read about Centralized Workflow and Feature Branch Workflow
  + Can merge remote branch via git pull origin <branch>
* Learned that git pull is an shortcut for git fetch | git merge FETCH\_HEAD
  + To merge remote branch, can equivalently run git fetch origin | git merge origin/<branch>

Searched for audio track for app video

* Jack White, Santana, and YouTube default music (basspartout, audio library)
  + Tested some default tracks by playing along with muted app video
* Contacted Zach Kendrick to ask for recommendations
* Asked several friends if familiar with Waves | Mr. Probz
* Watched Wisita video on choosing good background music for videos
  + Discovered Marmoset
* Browsed Marmoset for inspirational/exciting, pop/rock instrumentals

Tuesday 6/30

Purchased “design service” (moving icon up on Call to Action screen) on PayPal

Discussed work to do with Sean and sent Test Flight invite

Finished writing Press Release

* Finished paragraph on link messaging and wrote paragraph on existing user bases
  + Researched YouTube and smartphone usage statistics
* Wrote closing section on app launch schedule
* Added footnotes to cite external sources

Merged Sean’s (sean-dev branch) pull request

* Researched how to create a second branch with a pending pull request
  + Branching off existing branch versus off master and then rebasing
* Researched commands for pulling in merge commit

Trimmed app video

* In one audio track, trimmed beginning of song
* In another audio track, cut out one iteration of riff from 20 second mark

Searched Marmoset for alternate audio track for app video

Uploaded remainder of press kit to Dropbox

* Press Release, App Store Description, Icon files, and Video

Got picture from Ananya for team bio section

Worked on new Call to Action screen

* Got .ai file of correct dimensions from IconShock
* Designed app store link screen
  + Tried to install GIMP
  + Replaced “LinkMeUp” with “www.appstore.com/linkmeup”
* Got screen without badge

Researched people/news agencies to contact

* Found Gigaom, Editor in Chief of The Next Web, and UK contact point for Wired
* Used LinkedIn to find contact info of tech journalists at major agencies

Emailed Epipheo with budget/time frame estimate and description of desired video

Researched marketing strategies

* How to market to teenagers
* App Store Optimization (ASO) and Search Engine Optimization (SEO)
  + Changed app name to include “Video & Music Messenger”
  + Changed some app keywords
* Read about advertising on YouTube, Spotify, and Pandora
  + Contacted Spotify and Pandora advertising

Reexported app video at ideal settings for Vimeo (Video 7)

Refined Press Release

Rewatched, edited, and exported video

* Reverted to long introduction with full audio track
* Adjusted ending fade times
* Exported video (Video 8)

Wednesday 7/1

Emailed Sean to set Bellevue meeting place and confirm time

Uploaded final video to Vimeo

* Researched tips for high quality video playback on Vimeo
* Upgraded to Vimeo Pro to allow high quality embed
* Uploaded latest app video
* Set video basic/privacy/embed settings and thumbnail, after some experimentation
  + Tried to take screenshot in QuickTime for higher resolution thumbnail
* Embedded HD video in Weebly
* Set LinkMeUp account profile pic
* Deleted old video

Helped Sean with Parse log in view and discussed conversation fragment in Skype video call

Research contact info of prominent tech columnists

* Farhad Manjoo (New York Times), Nilay Patel (Verge), Joanna Stern (Wall Street Journal), Edward Baig (USA Today), Brian Chen (New York Times)
* Geoffrey Fowler (Wall Street Journal), John Herrman (BuzzFeed), Dave Lee (BBC News), Samuel Gibbs (Guardian), and Damon Beres (Huffington Post)

Updated privacy policy on LinkMeUp website

Committed and pushed changes to develop branch

* Removed Ananya’s picture (accidently commited/pushed) via git rm --cached “Documents/Promotional/Team” | git commit --amend -m

Researched how best to contact journalists and how to provide promo codes

Prepared to email journalists after App Store approval

* Generated promo codes and downloaded app from promo code link on my phone
* Looked into App Store short link
  + App Store name changed, so www.appstore.com/linkmeup no longer valid
* Removed version 1.8 from App Store
  + Removed App Store badge from website
* Refined Press Release
  + Added date, publication location, website link, and app screenshots
  + Removed footnotes
* Modified email pitch
  + Made app description more memorable/fluent, and added lead up line
* Started document “Personalized Openings”

Researched John Herrman

* Looked through BuzzFeed article headlines and Twitter posts
* Did not find many articles about mobile apps or music/video

Researched and wrote email to Geoffrey Fowler

* Read his recent article on music industry evolution
* Wrote personalized opening and further modified email pitch
  + Eliminated line about convenience and bypassing URLs
  + Moved short bio to beginning of email
* Added email address to Press Release
  + Created group/email contact@linkmeupmessenger.com in Google Apps
* Tested all links and another promo code on Ananya’s phone
* Sent email

Started writing personalized opening for email to John Herrman

Readded version 1.8 to App Store

Thursday 7/2

Removed version 1.8 from App Store again

Readded footnotes to Press Release

Wrote Team Bios document

* Titles, contributions, and humorous anecdotes for Samvit, Ananya, and Sanjay
* Got picture from Sean
* Renamed “Team Bios” to “Team Bios (Website)” and created new document for press kit
  + Titles and contributions for Samvit, Ananya, Sean, and Sanjay
* Uploaded to Dropbox

Wrote personalized openings for and emailed Farhad Manjoo and Damon Beres

Modified email for app review sites

* Created “Email Template -– Review” and “Email Template - News”
* Emailed 148apps

Looked into LinkMeUp-Android code

* Talked to Sean about work to do
* Pull changes to local repository
* Looked at recent diffs to understand changes

Researched FbStart program

Looked into more app review sites

* Emailed AppStoreApps
* Found AppAdvice in Google Doc of app review sites from appbattleground

Edited Press Release

* Added ### symbols to mark end of press release content
* Change email address to contact AT linkmeupmessenger.com

Emailed AppAdvice

Researched and emailed Edward Baig (USA Today)

Found contact info for, researched, and emailed journalists

* Owen Williams (The Next Web)
* Christina Warren (Mashable)

Found contact info for but did not finish researching

* Dan Seifert (The Verge)

Friday 7/3

Refined email pitch for app review sites

Found app review sites in Google Doc from appbattleground

* Looked for sites with high alexa rank
* Found contact info for and emailed Mac Life, PCMag, Top Ten Reviews (via contact form), and MacWorld

Researched and started building Facebook ad

* Found correct ad type - mobile ad for app installs
* Adjusted target platform, interests, and demographic to narrow audience
* Wrote and refined tagline for ad
* Experimented with Stock images provided by Facebook
* Updated app information on Facebook Developers page

Opened bank account for LinkMeUp with Wells Fargo

Modified Team Bios page, adding app’s backstory to Samvit’s description

Looked for stock photos for Facebook ad via Google image search

* Found music sharing picture for which license has to be purchased

Looked into YouTube video ad

* Uploaded app video to YouTube

Rewrote email pitch to journalists from scratch

* Researched and composed email to Dan Seifert (The Verge)
* Researched and composed email to Dave Lee (BBC)
* Found contact info for, researched, and composed email to Christina Bonnington (Wired)

Committed and pushed changes to develop

* Added Press Codes folder and jpg images in Team Bios folder to “Other sensitive data” section in .gitignore

Found contact info for, researched, and composed email to more journalists

* Mario Aguilar (Gizmodo)
* Sara Perez (TechCrunch)

Copied new email pitches to Email Template - News and Personalized Openings

Researched Gigaom writers Kif Leswing and Erica Ogg

* Learned that Gigaom shut down in March, so scrapped emails

Saturday 7/4

Edited Press Release, removing line about LinkMeUp’s “big advantage”

Listed news sites to contact in “Marketing Brainstorm”

* Consulted “The Most Viral News Sources on Twitter and Facebook” Infographic

Found contact info for, researched, and composed emails to two more tech journalists

* Stuart Dredge (Guardian)
* Edgar Alvarez (Engadget)

Edited email pitch to tech journalists

* Revised for fluency, clarified reference to Dropbox link, and emphasized existence of Press Release
* Read through all emails to ensure accuracy

Found contact info for, researched, and composed emails to journalists at general news sources

* Alyssa Newcomb (ABC)
* Brain Mastroianni (Fox News)
* Modified email pitch for non-tech news sites
* Steven Tweedie (Business Insider)
* Hayley Tsukayama (Washington Post)
* Tried to contact info for New Jersey-based journalist Kate Rodgers (CNBC)
* Arjun Kharpal (CNBC)

Experimented with displaying screenshots on Weebly site

* Tried inserting slideshow and gallery elements

Built Android project in Eclipse

* Used .jar files instead of rebuilding some dependencies locally
* Imported API 19 via SDK manager
* Ran app on Samsung device

Researched marketing strategies and looked into other sources to contact

* Read Apptamin’s “Ultimate iPhone App Marketing Strategy Guide”
* Added Cnet and iMore
* Used Alexa rankings to determine reach of news sites
  + Kept Lifehacker and Slate, but eliminated ReadWrite

**Week 7**

Sunday 7/5

Committed and pushed changes to develop

Brainstormed new headline for Press Release

* Shorter and more eye-catching, with focus on benefit to users (“got a lot easier”) rather than product (“new iPhone app LinkMeUp”)
* Specific use case example (sending Gangnam Style/overplayed music videos/pet videos) rather than general functionality (sending YouTube videos)

Created single panel image containing all 5 screenshots

* Came up with new captions for Search and Inbox screenshots

Changed opening paragraph of Press Release

* Changed first line to comment about convenience of smartphones, instead of rephrasing headline
* Changed opening of second line (“Enter LinkMeUp…”) for smooth transition

Researched how best to display App Screenshots image on Dropbox

* Dropbox preview of png image small and not impressive
* Uploaded jpg and pdf versions to compare
* Tried to add photo file (screenshots.jpg) to Press Kit folder
  + Could not import photo into folder of files

Found contact info for, researched, and composed emails to journalists

* Tiffany Kim (BuzzFeed)
* Edited press release
  + Instead of merely stating that sending links on phones is inconvenient, used a common flow of events to illustrate problem
* Alexandra Ma (Huffington Post)
* Thorin Klosowski (LifeHacker)
* Will Oremus (Slate)

Proofread and sent 15 emails

* Corrected mistakes in promo codes links to Business Insider and CNBC

Sent apology email to Alexandra Ma (Huffington Post) for misprinting name

Sent emails to Thorin Klosowski (LifeHacker) and Will Oremus (Slate)

Added zipped version of Press Kit to Dropbox folder

Monday 7/6

Apologized to Tech Crunch journalist

Talked to Sean via Skype call about address book integration

Researched email forms and landing pages

* Found landing page builder services KickoffLabs and Launchrock
* Experimented with “Background Slides – Countdown” template on KickoffLabs
  + Tried different backgrounds and text fonts
* Experimented with “Launchrock Clean” template on Launchrock
  + Found it difficult to customize page contents (i.e. remove logo, add video)

Built landing page with KickoffLabs

* Used “Your App Here” template
* Added Inbox screenshot to phone and embedded video element beneath sign up form
* Replaced screenshot with Vimeo video in phone template
  + Upgraded to Premium account to edit html
  + Changed first slideshow element from <img…> to <iframe…></iframe>
  + Removed full screen option in Vimeo embed settings
  + Tried to embed higher quality video / experimented with slideshow of images
* Customized default text
  + Changed text of thank you message presented after sign up
  + Changed From Name/Address in email settings
  + Customized message body of Automatic Reply email
* Changed www entry (type CNAME) in Weebly host records to point to Kickofflabs page
  + First changed to proxy.kickofflabs.com – did not work
  + Tried deleting A records
    - Checked DNS settings in namecheap domain samvitjain.com
    - Learned that A records must point to IP address, so restored them
  + Changed URL to linkmeup.kickoffpages.com – did not work

Discussed work done and next steps with Sean

Refined landing page

* Successfully move landing page to linkmeupmessenger.com
  + Configured page settings in KickoffLabs to publish to linkmeupmessenger.com
* Added Facebook share images, Twitter share text, and favicon image
* Tried to fix sign up form box formatting for laptop screens
  + Changed box color to white
  + Moved subtitle to app name/logo textbox
  + Tried to eliminate textarea field from signup form
    - Deleted references in CSS to textarea
    - Experimented with height of textarea in CSS (0, 1, 5, 10 px)
    - Commented out all references to textarea in CSS and HTML
    - Tried to change value of signup form’s margin-top
* Added field to sign up form
  + Select option dropdown for type of phone
* Tested on different browsers
  + Dropdown placeholder text truncated on Firefox
  + Did not test on Internet Explorer (largest market share)

Researched and configured email marketing service provider

* Read article comparing MailChimp with AWeber
  + Decided to use AWeber’s free trial, since only sending one email
* Set up 30-day free trial account with AWeber
  + Linked KickoffLabs campaign to AWeber
* Set AWeber opt-in email setting to off and KickoffLabs to on
  + Still receiving emails from both services on sign up
  + Read on AWeber help pages that subscriber info transmitted to AWeber via API results in confirmation email, regardless of account setting
  + Sent test email from AWeber notifying subscribers of app launch
  + Unlinked accounts
  + Changed text of confirmation email

Tuesday 7/7

Tested webpage on Internet Explorer

* Got screenshots from Sanjay (Windows VM) and Sean (PC user)
* Dropdown form text truncated

Contacted KickoffLabs support with IE / Firefox screenshots

Added social icons to webpage footer (Facebook, Twitter, LinkedIn) and set privacy page text

Looked into high-resolution cover photo for Facebook

Researched how to grant read-only access to Parse database for Sean

* Feature not supported by Parse

Brainstormed and researched other ways to do pre-launch marketing

* Ideas: local newspapers, Reddit / HackerNews, write back to journalists to review app, Facebook ad
* Read about doing market research (to validate/refine idea) and early marketing
  + Paid app for virtual pets, Hatch, announced 1 year ahead of release date
* Read article in Smashing Magazine by Jeremy Olson on marketing and launch

Received response from KickoffLabs support

* Dropdown text no longer truncated
* Request assistance with text wrapping and badge position

Updated Facebook cover photo with large image containing unscaled, original screenshots

Updated landing page to reflect new plan

* Eliminated “I have an iPhone” option
  + Dropdown text truncated once again on IE and Firefox
* Updated copy text to reflect availability
* Added “Available on the App Store” badge via html <img…> element
* Decided to replace badge with App Store short link
* Experimented with text positioning

Set custom Facebook and Twitter share text and meta description for webpage

Webpage fixed again by KickoffLabs support

* Tested on Firefox and mobile browser

Tried to replace text wrap behavior with horizontal scroll bar

* Tried setting properties of .logo h1 and textarea elements
  + overflow-x to scroll and auto
  + display to inline-block
  + white-space to nowrap
* Contacted KickoffLabs support again
  + Learned that scroll behavior not desirable on mobile, so decided not to purse

Researched and started developing Facebook ads

* “Clicks to Webpage” ad
* “App Installs” ad
  + Used Advanced Combinations setting to narrow target audience to friends of people connected to LinkMeUp app or page (16,000 people)
  + Experimented with stock photos
  + Tried to find iPhone PSD template to display screenshots in ad

Wednesday 7/8

Created and purchased Facebook ads

* Looked for stock photos of people using phones in a café via Google Image Search
  + Could not find a good photo to superimpose image of phone on
* Designed ad with orange background and three app screenshots
* Decided on 4 stock photos to use
* Created two ad campaigns and three ad sets
  + Website Clicks – General
  + App Installs – General
  + App Installs – Connections
* Purchased ads via LinkMeUp debit card
* Previewed ads on iPhone

Released LinkMeUp to the App Store

* Changed app Pricing settings to be available in all App Store territories worldwide

Contacted KickoffLabs about email caching issue

Downloaded and tested app

* Created new accounts via normal sign up and Facebook log in
  + Created new Facebook account Sam Jain (samvitj@linkmeupmessenger.com)
* Tested accepting/denying permissions and forwarding links

Tested webpage signup form and Facebook/Twitter post links

Wrote Facebook posts

* Posts for Personal Facebook page and for Princeton Class of 2016, 2017, and 2018 pages
* Tested on Only Me setting to ensure that website link was visible, where relevant

Contacted 29 people (25 colleges) on Facebook

* Requested friends to post about the app on their college Facebook groups

Thursday 7/9

Created 5 backdated posts on LinkMeUp’s Facebook page

* Posted YouTube videos featured in app video and screenshots

Updated Facebook share image to three-phone screenshot

* Used Open Graph Object Debugger to update cache

Posted about LinkMeUp in Princeton Facebook groups, on my timeline, and on app’s page

Looked into Android code

* Pulled changes from GitHub
  + Unstaged changes on local machine (marked as M on git checkout)
* Could not build project without phone

Exported Parse data for Sean

* Sent JSON file containing data for new account he made

Monitored LinkMeUp data

* Video views, ad conversions, website traffic, leads

Followed up about posting on Facebook groups with 5 friends

Set up A/B test on landing badge

* Copied page and added badge (via html)
* Ran test Badge vs. No Badge to compare conversion rate

Researched how to write and started writing follow up email to journalist

* Started working on short backstory to app development

Read article on “Inside Story of Yik Yak” to come up with marketing ideas

Assigned issue to Sean (logout functionality) and discussed work to do on Skype

Stopped A/B test

* Removed page without badge from base URL, despite lack of conclusive results

Committed and pushed changes to develop branch

* Used git commit --amend --no-edit to rename two committed images without modifying commit message

Emailed KickoffLabs about access to more detailed conversion data

Friday 7/10

Modified App Install ad sets

* Changed text from “A quick, fun way…” to “The fastest way…”
* Changed call to action from “Install Now” to “Learn More”

Worked with Sean to debug crash in Send Link tab

* Built and ran code in SeanContactbookIntegration branch
* Sent crash logs from Send Link tab to Sean
* Discussed issue on Skype

Found and shared new YouTube music video on Facebook group

Added to description of “Signup flow” issue on GitHub

* Specified major cases and steps involved in creating new account

Changed App Store links on landing page to full iTunes URL

* Replaced Twitter short link, which was not working on mobile

Configured Facebook conversion pixel

* Created pixel with Facebook ad manager
* Added pixel code to landing page header
* Installed “FB Pixel Helper” Chrome extension to verify pixel implementation
* Tried to resolve “Please check that a valid and non-empty object id is passed in” error message in Facebook ad manager
  + Moved standard event function call (fbq('track', 'Lead');) to within general pixel code (<script> … </noscript>)
  + Cleared Chrome cookies and refreshed Facebook page

Tested App Store build

* Tested account creation with Facebook login on iPhone 6
  + “Login with Facebook” had to be pressed twice
  + Did not show address book permissions system alert, despite phone reset
    - If app exited and address book access granted manually, app relaunches
    - Bug discovered: email/username not set in new account and no prepackaged links included (relevant code bypassed by exit/relaunch)

Looked into app crash logs

* Used Xcode organizer to find statistic on 2 identical crashes of v2.0 on iPhone 6
* Found line of crash (CFRelease(…)) in last commit on master branch
* Reverted to develop branch and made changes
  + Check if null before releasing

Read about gitflow

* Hotfixes should be made on branches off of master, not develop

Understood exemption from withholding condition on W4 tax form

Met with Sean at Bellevue Starbucks

* Ran latest version of Sean’s code on S4 mini
  + No crash while selecting friends in Send Link tab
* Discussed next steps in address book / friend suggestions and signup flow

Saturday 7/11

Switched off Facebook ads

Researched how to advertise mobile app to teenagers

* Read about frequency of YouTube usage (55% of teens use daily)
* Read about Tumblr

Developed new screenshots for version 2.05

* Matched background to logo (orange gradient)
* Decided on Calibri font for captions over Gill Sans, Copperplate, Helvetica, Cambria
* Uploaded iPhone 6 screenshots to iTunes Connect

Posted about LinkMeUp on Skyline Class of 2016 Facebook group

Posted about app launch to LinkMeUp’s Twitter

Tried to emphasize presence of playable video on website

* Noted that of ~500 video loads, only ~85 plays recorded
* Experimented with new copy text (“Watch out video…” instead of “Download…”)
* Tried to display video title via Vimeo embed settings

Implemented address book bug fix via gitflow

* Read about merging versus rebasing
* Committed and pushed changes (new iPhone 6 screenshots) to develop
* Created new branch hotfix-2.05 off of master
* Implemented CFRelease null checks
* Tested change on iOS 8.4
  + Updated to Xcode 6.4
  + Could not find null instances of CFStringRef and ABMultiValueRef types
* Committed changes to hotfix-2.05 (mistake)
  + Reset mistaken commit with git reset –soft HEAD^
* Made version bump commit
  + Changed version to 2.05 and bundle identifier to com.JainDev.LinkMeUp
* Committed address book bug fix again
* Amended previous commit to develop branch to remove extra line in Data.m’s -saveAddressBookContacts and prevent potential merge conflict)

Researched marketing

* Read Quora posts on how to get first 10,000 users
  + Learned that app needs to appeal to closed circles (to create mini-network effect)
* Looked into packaged marketing services
  + Learned about Appular and EAM on iPhoneDevSDK blog post
  + Contacted appshout! and Appular via contact forms
* Read TechCrunch article on Facebook’s attempt to host music videos

Developed new screenshots for other devices

* Uploaded screenshots for iPhone 5 and iPhone 6 Plus to iTunes Connect
* Decided to use Select (Add Message) as first screenshot on iPhone 4
  + Changed caption to “Send any YouTube video”
* Uploaded iPhone 4 screenshots
* Committed and pushed changes to develop

Looked into verification text message delivery via Twilio and Cloud Code for Android

* Updated Twilio username, email, and password
* Translated Objective-C code for calling JS “inviteWithTwilio” function into Java
* Posted comment to Signup flow issue

Looked into resolving remaining bugs in production app

* Read/thought about posting NSLog messages to server
* Code for posting mobile verification status to Parse added to hotfix-2.05
  + Hotfix-2.05 merged into master and develop via git merge --no-ff hotfix-2.05
  + Pushed develop and master to origin
  + Researched whether hotfix branch should be pushed to origin as well
* Looked into Facebook login loophole bug
  + Realized that username/email should be set after initial log in, not verification
  + Researched how to request user info without async call to Facebook API
  + Tested Facebook account creation flow
    - Terminating app before pressing continue in findContactsVC and relaunching the app causes PFUser isNew to switch to false

**Week 8**

Sunday 7/12

Brainstormed work to do

Resolved bug in signup flow logic

* Moved code from -viewDidAppear to -didLogInUser in DefaultSettingsVC
  + Pulling username, email, and name from Facebook
  + Checking if account with same email already exists
    - Introduced NSUserDefault status boolean didCreateAccountWithSameEmail
* Introduced NSUserDefault status boolean didNotLaunchNewAccount to track if app terminated before launch (but after mobile verification)
  + If didNotLaunch is true, launch application as if new user

Fixed new crash seen after logout when push notifications switched off

* Resolved by checking if any user logged in before updating data in LinkMeUpAppDelegate’s –reloadData method

Tested different signup flows

* Creating new account via Facebook if account with email and/or username exists already
* Completing launch of new account created via Facebook
* Completing launch of new account created via LinkMeUp signup screen
* Terminating app before pressing continue in findContactsVC

Committed and pushed changes to develop

Created release-2.05 branch, changed bundle identifier, and made bump commit

Used git mv blackiphone6 BlackiPhone6 to rename file in develop (committed change)

Merged release-2.05 branch into master (--no-ff tentative Archive commit)

Exporting archive

* Initially failed in master branch
* Moved back to release branch, changed Code Signing Identity - Release to iOS Distribution (commited change), and tried again – still failed
* Looked into provisioning profiles and expiration procedures
* Untethered iPhone to successful export archive
* Merged release-2.05 into master again (--no-ff Archive commit)

Pushed changes to master

Uploaded archive to iTunes Connect

* Build number 2.05 changed to 2.5 in iTunes Connect
* Looked into app version and build number conventions
* Tried changing building number to 2.0.5
  + Archive successfully created, validated, and exported
  + Would not upload to iTunes Connect

Researched app name guidelines and recommendations

Discussed Android work to do and 3-week plan

Wrote email to appshout!

Monday 7/13

Undid last commit in develop (file rename) via git reset --soft HEAD^

* --force pushed change to origin

Managed Android development

* Wrote email to Sean on Android 3-week plan
* Created Asana account
* Discussed launch date and work to be done in Send Link tab with Sean

Researched app name, keywords, and age rating best practices

* Looked into App Store analytics tool AppTweak

Submitted Version 2.05 for review

* Tagged Version 2.05 / Build 2.5 commit in master

Looked into app marketing services

* Contacted EAM via contact form
* Read about appshout! on iPhoneDevSDK forum, Quora, LinkedIn, Twitter, Facebook
* Looked into other services
  + ApproStar, App Promo (contacted), and Fetch
* Wrote follow-up email to appshout! asking about upgrade policy

Wrote follow-up email to journalists (to be sent after Version 2.05 update in App Store)

Brainstormed marketing ideas

* Inspirational speech at middle school (i.e. RMS) assemblies
* Redmond Town Center / Bellevue Square stall
* Contact / advertise through popular YouTube channels

Found and resolved incorrect references to App Store page

* Replaced link to Turkish version with link to U.S. version with redirect
  + Updated website, tweet, and press release
* Tested Twitter short link
  + Links to US page with no redirect
* Bookmarked three known versions of page

Looked into YouTube stars

* Read about PewDiePew
* Tried to found famous channels based in Seattle

Looked into push notification screen bug

* On iPhone 6 and vishakha.an@gmail.com account, push notification screen rapidly dismissed on launch
* Isolated issue to app’s failure to clear NSUserDefault kDidPresentPushNotifAlertView
  + Dealloc not being called in pushNotifViewController

Confirmed functionality of version 2.05 via Test Flight

* Sent invites to Allie, Ishan, Nathan, Nicholas, Rachid, Siddharth
* Confirmed by Allie and Ishan

Looked into Bellevue Square website and contact information

* Found email of Bellevue Collection (info@kemperdc.com)

Tuesday 7/14

Contacted Ashima about testing app for international numbers

Worked on marketing

* Looked for YouTube channels / stars based in Seattle
* Went through Wikipedia list of famous people from Seattle, Redmond, Issaquah
  + Found Karan Brar of Diary of a Wimpy Kid / Jessie fame
* Tried to find Karan Brar’s email address
  + Looked through Facebook, Twitter, Instagram, and Google Plus pages

Released Version 2.05 to App Store after approval

Tested new App Store version

* Contacted Othman, Siddhartha, and Zach to download new version
* Confirmed by Othman

Email to current LinkMeUp users

* Asked to update to Version 2.05 and like / follow public pages
* Manually imported 87 emails from Parse
* Tried to import contacts into new group in Google Contacts
  + Tried uploading .json and .csv file types

Sent email to Fetch

Researched Princeton alums in music / entertainment industry to contact

* Found Ellie Kember (from qThe Office), Molly Ephraim on Wikipedia

Contacted 31 friends on Facebook to ask if they own an iPhone, and if so, to download app

Finalized follow up email to journalists

Updated press kit

* Revised second paragraph of press release
* Replaced old screenshots with new orange background ones
* Updated App Store description

Wednesday 7/15

Finalized press kit

* Added folder of individual screenshots and moved panel image into folder

Researched best practices for a pitch email to journalists

* Looked into recommendations on compelling subject lines

Sent follow up email to 23 journalists

Read about and made accounts on Product Hunt (Samvit’s Twitter) and HackerNews (SamvitJ)

* Asked Shubhro for Product Hunt invite
* Learned best practices for posting on HackerNews
  + Post between 8AM – 10AM EST on weekday
  + Send link to news.ycombinator.com/newest (NOT direct link) to 20+ people
  + Later send news.ycombinator.com/new to 10+ people
  + Choose compelling title

Looked into contacting singers / actresses from Princeton

* Researched Baiyu (Sara Chen), Ellie Kemper, and Molly Ephraim
* Composed, revised, and sent email to Baiyu

Built latest Android commit, ran app, and sent debug log to Sean

Read about promoting app on Reddit and Product Hunt

* Tried to login to old Reddit account
  + No email address on record, so could not reset password
* Looked into best time to post on Product Hunt
* Read about Darshan’s apps Plan and Lo on Product Hunt

Thursday 7/16

Made new Reddit account (SamvitJain / samvit.jain@gmail.com)

Researched and replied to Appular and App Promo

* Read App Promo’s slide deck and created documents of questions to ask

Restarted Facebook ads

* Changed App Installs - Connections from oCPM to a CPI bid of $1 per install
* Researched CPM vs. CPC vs. CPI best practices
* Created new App Installs ad set
  + Seattle / Redmond area, Females, Ages 13 – 19, YouTube
  + CPI bid of $1 / install
* Changed both CPI bids to $2 / install
* Researched market price of app installs

Sent Sean images and code for friend request buttons

Researched employment forms and tax policies

* Dependent can show $6,300 in earned income (2015) without paying federal income tax
* Summer interns must file W4 form

Deleted five fake accounts and their associated master links from Parse

Looked into other advertising platforms

* Researched YouTube video ads

Met with Sean at Bellevue Panera

* Discussed work to do
  + Friend requests, data updates / performance, screen sizes support
* Installed LinkMeUp with Parse development keys on Sean’s phone
  + Temporarily changed Build Active Architecture Only setting to No
  + Created new provisioning profile

Friday 7/17

Researched number of ratings required to display average rating on App Store – 5

Looked into PSD templates for screenshots with captions

* Started watching video by Michael Flarup of pixelresort
* Experimented with his templates (http://appicontemplate.com/iphonescreenshot)

Sent Friend Request code Gist to Sean

Typed up Ananya’s app reviews and added 3 more to document

Brainstormed marketing ideas

* Looked into July events in the Lake Washington School District calendar

Got Product Hunt invite from Darshan

Started new Facebook ad with CPC pricing

* Created ad set – Redmond area, Females, Ages 13 – 18, YouTube – and set max CPC bid of $0.42 / click (within suggested range)
* Read about CPC bidding on Facebook
* Changed bid price to $0.50 / click

Looked into Facebook App Installs tracking

* Added line of code [FBSDKAppEvents activateApp] to LinkMeUpAppDelegate’s didFinishLaunchingWithOptions:
  + Not required, since Facebook login already configured via Parse
* Found Facebook Analytics dashboard for LinkMeUp
  + Looked into statistics for organic and paid installs driven by Facebook

Finished watching Michael Flarup’s video on PSD templates

Sent Gist with friend request button formatting code to Sean

Saturday 7/18

Researched Galaxy S6 market share

Researched how to get 100,000 downloads

* Read Quora answers
* Read article on promotional / marketing strategies by Buzinga apps
  + Learned to identify key traffic sources (via services such as SimilarWeb)
  + Learned to create Excel spreadsheet with list of media / reviewer contacts
  + Learned to use bullet points in pitch email to journalists

Created Contact Info spreadsheet on Excel

* Moved names and contact info for journalists, app review sites, and connections from Marketing Brainstorm to Contact Info
* Added columns Alexa Ranking, Date Contacted, Followed Up?, and Means of Contact

Added app ratings / reviews from 4 family Apple IDs and 2 more created by Ananya

Contacted new app review sites and followed up with old ones

* Looked through app review sites in list by Buzinga apps
  + Found two sites with decent Alexa rankings – AppShopper and Apps400
* Contacted Apps400 (online form), iMore, and AppShopper
* Sent follow up email to previously contacted review sites and to Forbes / PCWorld contributors

New screenshots for Version 2.10

* Researched screenshot guidelines, templates, and examples
  + Looked through bookmarked App Store pages to get idea for what looks good
* Used LaunchKit.io to make screenshots
  + Pale blue background and large captions in Raleway font
    - Exported Inbox screenshot in all sizes to test
  + Tried orange background with white text – did not look good
* Decided to modify original screenshots
  + Used larger font for captions and moved phones down
  + Changed font from Calibri to Avenir (Raleway lookalike available in GIMP)
  + Removed gradient, using a constant orange shade from icon instead
  + Downloaded and tested Raleway font
* Compared all screenshot options
  + Decided on 1) Avenir font and 2) background with no gradient
* Brainstormed one line captions for Inbox screenshot
  + Decided to go with two line caption “Browse through links sent by friends”
* Created iPhone 6 screenshots

Changed App Store link on website to US store with no redirect

* Tested on mobile – link still opened in App Store

Restarted Website Clicks campaign but limited reach to Redmond Area, 13-18 age group

Committed and pushed changes to develop

Modified screenshots, created iPhone 4 / 5 / 6P variants, and uploaded

* Used darker shade of orange to better match icon color in mobile App Store
  + Tested darker gradient, but decided to go with constant shade instead
* Created screenshots for iPhone 4, 5, and 6 Plus
* Uploaded all screenshot to iTunes Connect

Contacted Facebook friends to ask about HackerNews accounts

* Got three friends on board – Tim Lau, Joseph Zhong, and Rahul Dev.

Committed and pushed changes to develop

**Week 9**

Sunday 7/19

Finalized v2.10 and submitted for review

* Created release-2.10 branch and made bump commit
* Tested app on iPhone 4 and 6
* Returned to develop branch to modify iPhone 4 screenshots
  + Larger captions and more spacing between caption and phone (commit)
  + Merged changes into release-2.10
* Accidently merge develop into master (instead of release-2.10 into master)
  + Fixed with git reset --hard HEAD@{1}
* Merged release-2.10 into master
* Pushed develop and master to origin
* Submitted v2.10 (build 2.6) for review
* Tagged master commit

Researched Android devices and API support

Looked into online promotion strategies

* Brainstormed work to do
* Revisited Intro to Side Projects PowerPoint on Launch
  + Reviewed tips on how to post on HN, Reddit, and ProductHunt
  + Learned about tweeting at publications / influential people
* Read about adding SEO and Facebook meta tags to website
  + Changed FB meta description link to iTunes URL (instead of Twitter short link)
  + Updated app tag line to “fastest way to send \*YouTube\* videos”

Looked into analytics tools

* Facebook pixels
  + Tried to configure Custom Audience Pixel for tracking leads
    - Copied Pixel code into KickoffLabs analytics dashboard – later removed
    - Disabled ad blocker
    - Tried on another computer
    - Sent message to FB ads support team via contact form
  + Added Facebook Conversion Tracking pixel
    - Added code to site header
    - Confirmed functionality with FB Pixel Helper chrome extension and Tools -> Pixels in the Facebook Ads Manager dashboard
* Google Analytics
  + Created account and added Universal Analytics tracking code to site header
  + Set up some advanced features – Enhanced Link Attribution, Advertising Reporting (collection of demographic data on visitors), and User-ID tracking

Prepared for posting on HackerNews

* Read article The Best Time to Post on Hacker News (Nathanael Silverman)
  + Confirmed from multiple sources that post should be between 9 – 10 AM EST
* Contacted Facebook friends to ask about HackerNews accounts
  + Paul Cretu (tentative), Mike Zhang, and Chris Piller agreed to upvote
* Read about voting ring detection
  + Was able to upvote from SamvitJ and ajain20517
  + Confirmed that multiple computers with same internet modem share IP address
  + Learned that HN has measures in place to combat upvotes from new accounts

Modified Facebook ads

* Changed bid type for App Installs – Redmond, Female, Clicks to oCPC (instead of max bid of $0.50 / click) and budget to $5.00
* Changed bid for App Installs – Connections, M/F to FB’s suggestion of $2.54 / install

Posted Spectre teaser trailer to LinkMeUp Facebook page

Resolved issue with popping stashed changes in git branch

* Reset accidental changes to branch via git checkout <filename>

Made backups of important LinkMeUp materials

* Copied Xcode project folder and some documents folders to Seagate Slim Drive

Tested mobile verification with Indian phone number

* Tried number without country code
* Tried number with +<country code> appended to front (as suggested by Twilio)
  + Plus sign stripped by app before being transmitted to Twilio

Monday 7/20

Browsed App Analytics (iTunes Connect), FB Ads Manager, and Google Analytics stats

Boosted Spectre trailer post on Facebook page via $3.00, one-day ad campaign

Looked into Promoted Pins on Pinterest

* Read article How to Market Your App on Pinterest
* Created business account and profile for LinkMeUp
* Downloaded Pinterest’s “Pin It” Chrome Extension
* Created 2 boards and added 1 pin to each

Read article Key Ingredients To Make Your App Go Viral by Smashing Magazine

* Learned that app must have something valuable to share and reward users for sharing it
* Learned that friend invites should be a core component of the app
* Learned to offer limited-time promotions to create sense or urgency
* Takeaway – virality must be built into app’s design and core functionality from the start

Looked into posting on Reddit

* Identified possible threads to post in – r/programming, r/iOSprogramming, r/iOS, r/iPhone, r/apps, and r/iOSapps
* Decided to post in r/apps due to larger traffic than other, programming-specific threads

Looked into posting on Product Hunt

* Browsed posted products to get ideas on how to make post
  + Found social music app Cymbal
  + Added new cover photo to LinkMeUp’s Facebook page, modeled off of Cymbal’s
* Started document Product Hunt Post
  + Came up with one line product description
* Found 2 articles on Product Hunt posting best practices
  + Added key ideas learned to document
  + Takeaway – should understand Product Hunt well before making a post
* Found email address for site founder, Ryan Hoover (possible Influencer)

Added email icon to landing page footer

Started work on Facebook contest / giveaway

* Came up with gift idea and plan for advertising the contest
* Started document Contest Planning
  + Wrote Facebook post announcing contest
  + Listed components of contest and problems to consider
* Created / saved an audience for contest
  + Seattle / Redmond / Issaquah / Kirkland / Bellevue residents, ages 13 – 18, interested in YouTube, owners of iPhones

Tuesday 7/21

Increased CPI bids

* App Installs – Connections, M/F to $2.91 / install (suggested)
* App Installs – Seattle/Redmond, Female to $3.00 / install

Found and corrected mistake (incorrect caption) in iPhone 4 Inbox screenshot

Worked on online contest

* Found picture / thumbnail to accompany post
* Looked into other gift ideas
  + YouTube channel T-shirts
  + LinkMeUp custom T-shirts
* Added Call to Action button (“Use App”) on Facebook page
* Tested post on mobile
  + Goal: info about prize should be visible “above the fold” on mobile
  + Shortened first sentence so that it fit on 2 lines on mobile
* Improved thumbnail image
  + More prominent logo (darker) and larger text / App Store button
* Changed Contest Audience to only include Sammamish and Redmond at first
  + Changed wording of first line of post to reflect localization
  + Emailed KickoffLabs to request addition of “Based in Seattle, WA” to website
* Revised and tested first line of post
  + Giveaway vs. contest and fun contest vs. first contest
* Researched incentivized downloads

Added username to Password Reset email and website / FB page link to Verification email

Researched backend technologies

* Read post on MySQL vs. NoSQL by Quora founder

Continued testing and optimizing Facebook post

* Changed first line to be even more shorter and direct
* Removed “congratulations” to make post seem more genuine

Tried to extract all user addresses from exported Parse data (\_User.json)

* Installed python
  + Resolved SHA1 mismatch error in one tar file
* Researched how to parse JSON in python
  + Difference between json.loads() and json.load()
  + Accessing dictionary elements
    - Tried to resolve “TypeError: string indices must be integers”

Wednesday 7/22

Skype calls with Sean

* Discussed data update logic and work to do

Looked into international phone number verification issue

* Added instructional message to verificationVC xib file
* Changed keyboard type to UIKeyboardTypePhonePad
* Change code to no longer strip user input of punctuation
* Exported archive from develop branch and uploaded to iTunes Connect
  + Changed app status to Developer Rejected
  + Submitted new build (2.61) for review
* Requested expedited review
* Merged develop into release-2.10 and merged release-2.10 into master
  + Pushed changes to origin and master
* Contacted new international users about upcoming fix

Posted Online Contest description to Facebook page

* Boosted to Sammamish/Redmond residents for $3.27

Finished writing extractEmails.py

* Understood with \_ as \_ statement
* Resolved dictionary element KeyError
  + Replaced user[‘email’] with user.get(‘email’, None) to handle null value for email address
* Learned how to write to a .csv file
* Learned how to create and write to a new directory

Changed Facebook ads

* Changed App Installs – Connections, M/F, Installs to oCPC (instead of CPI)
* Turned off Website Clicks and App Installs – S/R, F, Installs

Skype call with Sean

* Discussed use of shared preferences to cache data

Brainstormed contest rules and selection procedure

* Created document contestDrawing.py
* Wrote pseudocode for selecting winners
* Started coding logic for listing links sent after contest start
  + Comparing ISO 8601 format dates

Moved app reviews to newly approved version (2.10)

Continued work on contestDrawing.py

* Finished link date comparison
  + Learned how to initialize datetime object
  + Learned how to make datetime offset-aware
* Sorted link array by createdAt dictionary field

Confirmed Version 2.10 functionality with Bela Todi

* Verification code successfully sent to Indian phone number with country code

Thursday 7/23

Discussed meeting location and paging links with Sean

Emailed international users about new version of LinkMeUp available in App Store

Emailed two contest participants, requesting them to tell friends about contest

Worked on contestDrawing.py

* Wrote code for computing contest candidates from sorted links list
  + Excluded LinkMeUp H.Q. and previously included link senders
* Wrote code for further pruning list of candidates
  + Used first 3 digits of phone number to determine if resident of Seattle Area
* Learned how to space and left align printed content via format string

Promoted new contest post to Greater Seattle Area audience

* Created Greater Seattle Area audience via Audiences dashboard
* Paused all other ads
* Researched difference between boosted vs. promoted posts
  + More audience customization possible with promoted post
* Researched (promoting) Facebook events
* Created promotion for Greater Seattle Area with $40 daily budget

Refined contestDrawing.py program

* Added white lists and black lists to logic for determining contest participants
  + Included eligible, Seattle-area users with 1) null mobile\_number field (from 1.x app versions) and 2) non-WA state area codes
  + Excluded family members, fake accounts, and users older than 18 (i.e. my friends)
* Looked into Parse REST API
  + Goal: get latest JSON data directly from Parse
  + Wrote two files getLinkData.py and getUserData.py for retrieving link and user data via Parse REST API request
  + Did not yet integrate API calls into main contestDrawing.py program

Committed and pushed changes (python programs) to develop

Looked into 2 international phone number verification failures (relatives of Bela Todi)

* Tried to test phone numbers with spaces
  + Not possible to enter spaces in provided keypad

Looked into advertising on Instagram

* Not yet available to most businesses

Met with Sean in Lakemont - Bellevue Starbucks

* Researched Android API versions and screen sizes for meeting

Paused Greater Seattle Area post promotion

Wrote email about contest to select group (ages 13-18, WA residence) of current app users

Looked into integration of REST API calls into contestDrawing.py program

* Considered piping input/output of python programs
* Moved logic from getLinkData.py into contestDrawing.py
  + Added limit and skip parameters to query
  + Looked into HTTP request paging

Friday 7/24

Created document Promoted Post Results to compare contest promotion campaigns

* Redmond/Sammamish campaign got clicks for ~9% of views vs. 0.7% of views for Greater Seattle Area campaign

Brainstormed contest promotion ideas

* Targeting cities – Redmond/Sammamish, Bellevue/Kirkland, City of Seattle
  + Created new post promotion campaign targeting Bellevue residents
* Sending emails to past contacts (elementary, middle, high school)
* Buying ads on other services with less competition and clutter
  + Twitter, Pinterest, Tumblr
* Posting on contest promotion websites
* Sending an email about the contest to RHS student mailing list

Incorporated REST API calls into contestDrawing.py program

* Refactored API calls to functions in getLinkData.py and getUserData.py
  + Linked files via import statements in contestDrawing.py
* Implemented paged REST calls
  + Used do-while loop construct

Replaced thumbnail image in contest post

* Bigger logo, text, and App Store badge
* Replaced app tag line with prize summary to increase click rate
* Created new campaign and started ad set with $24 daily budget

Looked into other contest promotion strategies

* Found service ExactData from which to buy mailing lists
* Wrote and sent message to RHS ASB Facebook page admin
  + Researched concept of tweeting *at* someone (replies vs. mentions)
* Wrote and sent Facebook message to Mr. Lombardi

Committed and pushed changes to develop branch

Tagged v2.10b (2.61 build) commit in master

Looked into rejected promoted post

* Read about and experimented with 20% text rule
* Created new promoted post with smaller logo and $25 daily budget

Changed sortedLinks time stamp to PST (instead of UTC) in contestDrawing.py

Edited Bellevue promoted post to include App Store link

* Changed ad setting to show only on iOS devices (reduced budget to $20 / day)

Saturday 7/25

Email KickoffLabs about lack of space between Notify Me button and footer on mobile website

Created new screenshots

* Analyzed problems with existing screenshots in mobile (iPhone 4/6) App Store
* Tried out new lighter backgrounds with gradient
  + Tested by superimposing on screenshots of LinkMeUp in mobile App Store
  + Decided on darker background to better match bottom of logo
* Uploaded new screenshots for iPhone 4, 5, 6 and 6 Plus to iTunes Connect

Tried to find old versions of App Store page for personal record

Brainstormed work to do

* Updated Progress Log.xlsx and Work to Do with to do list for remainder of summer

Read about steps involved in releasing app to Google Play Store

Researched how Google/Quora acquired first 1,000 users

* Watched beginning of interview with Uber founder Travis Kalanick
* Read Reddit post on how several successful companies acquired their early users

Ended promotion of contest post to Bellevue residents

Sent Facebook messages about app to Mr. Noteboom and Mr. Crowley

Looked into signup with Facebook issue (addressed in v2.05)

Submitted Version 2.15 for review

* Committed and pushed changes to develop
* Created release-2.15 branch, made first commit, and exported archive
* Uploaded archive to iTunes Connect
* Merged release-2.15 into master and pushed local master to origin
* Submitted new version for review

Read about how to exclude iPod/iPad from list of supported devices on App Store

Started work on posting log messages to Parse

* Created Logs class in Parse and in Xcode
* Wrote code for creating and closing log sessions
  + Created sessionLogs object in -didFinishLaunchingWithOptions
  + Updated sessionLogs in defaultSettingsVC and -didEnterBackground
  + Closed session in -willTerminate and on logout
  + Cleared and create new sessionLogs object on logout
* Tested implemented functionality

**Week 10**

Sunday 7/26

Used git stash apply stash@{1} to pop one of two stashed working directories

* Used git stash list to list stashes in develop and server\_logging

Worked on custom function for posting to Parse

* Introduced class / file pair NSLogExtension.h/.m and function -ExtendNSLog
* Added logic for appending log messages to messages field on sessionLogs
* Addressed “Object not found for update (Code 101)” Parse error
  + Set ACL to public write access on new session created after logout and new session created on application launch, if no user logged in
  + ACL changed to sole write access for current user on login
* Added \_\_TIME\_\_ parameter to custom function to display system time in log messages
  + Tried to print time in milliseconds

Looked into application lifecycle and logging to Parse before app termination

* Looked into when -applicationWillTerminate is called
* Read Apple Docs on App Life Cycle and background execution
* Experimented with function -beginBackgroundTaskWithExpirationHandler:

Revised design of Logs class

* Replaced sessionStart and sessionEnd (redundant with createdAt and updatedAt) with SessionEndCause typedef enum
* Replaced SessionEndCause with sessionLoginStatus
  + Changed logic to not create new sessionLogs object on logout
* Added fields versionInstalled and installation

Modularized server logging logic

* Created app delegate method –saveSessionLogsToParse and -saveUserInfoInSessionLogs method in defaultSettingsVC

Looked into account creation with Facebook issue

* Added case to handle “Invalid email” error and other failures to set username/email
  + Username set to email, but email set to nil
  + Logged error message if Parse error 125 (Invalid Email error) occurred

Tested server logging code in signup flow

* Added call to -saveUserInfoInSessionLogs in callback method -didSignUpUser
  + Removed call from -launchApplication: launchType:
  + Login status now set in Logs object immediately after successful account creation
* Tested edge cases
  + Added more log statements to verification flow

Monday 7/27

Worked on refining custom log function

* Eliminated incorrect use of \_\_TIME\_\_ macro from custom log function
* Looked into how to access and print system time, as displayed by default NSLog function
* Improvement formatting and alignment of custom log messages
  + Added left alignment flag and width field to format string
  + Added code to truncate file name to fixed size
* Wrote program logMessages.py to neatly print messages field on any Logs object
* Looked into redirection of NSLog messages from static libraries / frameworks
  + Read about how to manipulate file descriptors in iOS to redirect stderr to file
  + Tried to find .pch file or other setting in Parse SDK controlling logging behavior
  + Read Parse’s Changelog from versions V1.4.2 (linked) to V1.7.5 (current)

Added to code involving Installation objects to better track downloads and user device info

* Saved Installation to Parse in AppDelegate’s –applicationDidFinishLaunching
* Changed instances of –saveInBackground to –saveInBackgroundWithBlock
  + Other instances in Xcode project (i.e. in friendsVC) changed as well
* Added currentUser and allUsers (PFRelation) fields to map users to installations
  + Fields set in -launchApplication: launchType:

Read about MySQL vs. SQLite vs. PostgreSQL tradeoffs

Looked into NSString to C string conversion in –ExtendNSLog

* Researched alternatives to [str UTF8] method call to resolve apostrophe misprint error
  + Experimented with –[str cStringWithEncoding: UTF16]
  + Change caused build errors

Moved call to –ExtendNSLog from DEBUG mode (within ifdef DEBUG scope) to RELEASE

* Changed scheme setting to RELEASE and tested app
* Tested to see if last log messages transferred to server when
  + User kills app with by double clicking home and swiping up
  + User leaves app, uses other memory intensive apps, and system kills LinkMeUp
  + Messages not transferred, but unclear whether -applicationWillTerminate called (phone untethered to computer)

Tested account creation with Facebook issue error handling

* Tested invalid email logic – case correctly caught and logged
* Noted that session logs not always transferred to server on –didEnterBackground
* Tested nil email – no issue caused, as expected

Looked into logic for transferring session logs to server after any error message logged

* Tried searching for substring “Error” in log message argument (commented out)

Looked into editing Facebook permissions on account creation with Facebook

* Noted crash if email permission selectively denied
  + Resolved by setting username to be full name, instead of email, if email denied
  + Did not handle case if both name (public\_profile) and email denied
* Wrote code separating out existing username error (202) from existing email error (203)
  + Moved to separate file in Notes and Code Samples for now, due to complexity

Committed changes to server\_logging branch and pushed commits (with -u option) to origin