BuffCut

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Preview

- Requirements
- Diagrams
- Lessons Learned
- Demonstration
- Next Steps

Requirements - Clipboard Buffer Overlay

- The clipboard buffer overlay should not take focus away from the currently running program.
- The clipboard buffer overlay should display a list of the most recently copied items.
- The user can press a star next to an item to pin it.
- The user can switch to a pinned list that displays all the items that have been pinned by hitting a tab on top of the buffer.
- The user can select any item in either list and that item will be available to be pasted.
- The user can tap off the overlay to make it close.

Requirements - Preferences Screen

- The user should access the preferences screen through the app icon.
- The user should see multiple tabs that can be selected.
- The user should be able to set the size of the buffer in the Settings tab.
- The user should be able to manage the buffer history in the Buffer tab.
- The user should be able to manage pinned items in the Pinned tab.
- The user should be able to add and remove applications to the blacklist in the blacklist tab.

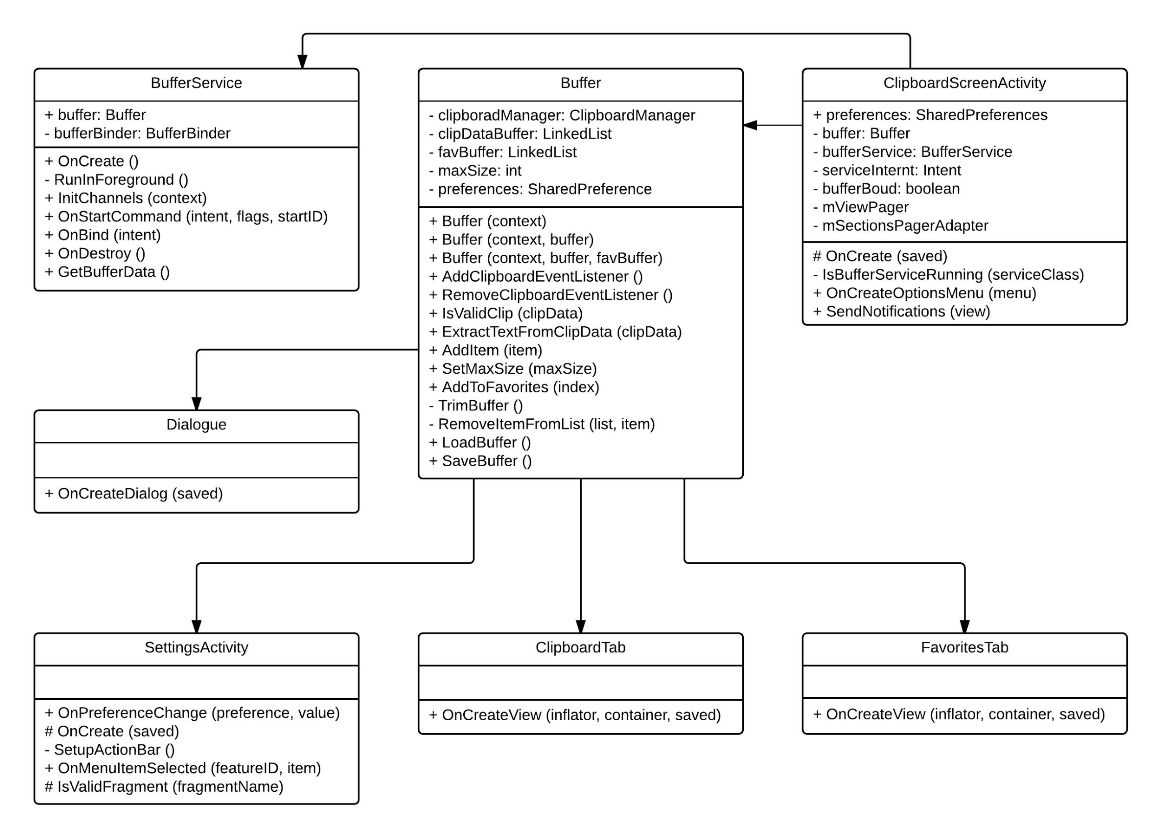
Requirements - Status Icon

- The status icon should always display in the status bar as long as the app is running.
- The user can select the icon and it should bring up the clipboard buffer overlay.

Requirements - Runtime

- When a user copies text, that text is added to the top of the clipboard buffer.
- When a user wants to paste text, it should take three touches to get the text out of the clipboard buffer.
- Should run on Android 4.2 and higher.
- Should not ask for any permissions that aren't expressly needed.
- Should be as efficient as possible. Preferably with near zero load times.
- Should not take a noticeable amount of battery.

UML Diagram



BufferService

+ buffer: Buffer
- bufferBinder: BufferBinder

+ OnCreate ()
- RunInForeground ()
+ InitChannels (context)
+ OnStartCommand (intent, flags, startID)
+ OnBind (intent)
+ OnDestroy ()
+ GetBufferData ()

Buffer

- clipboradManager: ClipboardManager
- clipDataBuffer: LinkedList
- favBuffer: LinkedList
- maxSize: int
- preferences: SharedPreference

+ Buffer (context)
+ Buffer (context, buffer)
+ Buffer (context, buffer, favBuffer)
+ AddClipboardEventListener ()
+ RemoveClipboardEventListener ()
+ IsValidClip (clipData)
+ ExtractTextFromClipData (clipData)
+ AddItem (item)
+ SetMaxSize (maxSize)
+ AddToFavorites (index)
- TrimBuffer ()
- RemoveItemFromList (list, item)
+ LoadBuffer ()
+ SaveBuffer ()

ClipboardScreenActivity

+ preferences: SharedPreferences
- buffer: Buffer
- bufferService: BufferService
- serviceInternt: Intent
- bufferBoud: boolean
- mViewPager
- mSectionsPagerAdapter

OnCreate (saved)
- IsBufferServiceRunning (serviceClass)
+ OnCreateOptionsMenu (menu)
+ SendNotifications (view)

Dialogue

+ OnCreateDialog (saved)

SettingsActivity

+ OnPreferenceChange (preference, value)
OnCreate (saved)
- SetupActionBar ()
+ OnMenuItemSelected (featureID, item)
IsValidFragment (fragmentName)

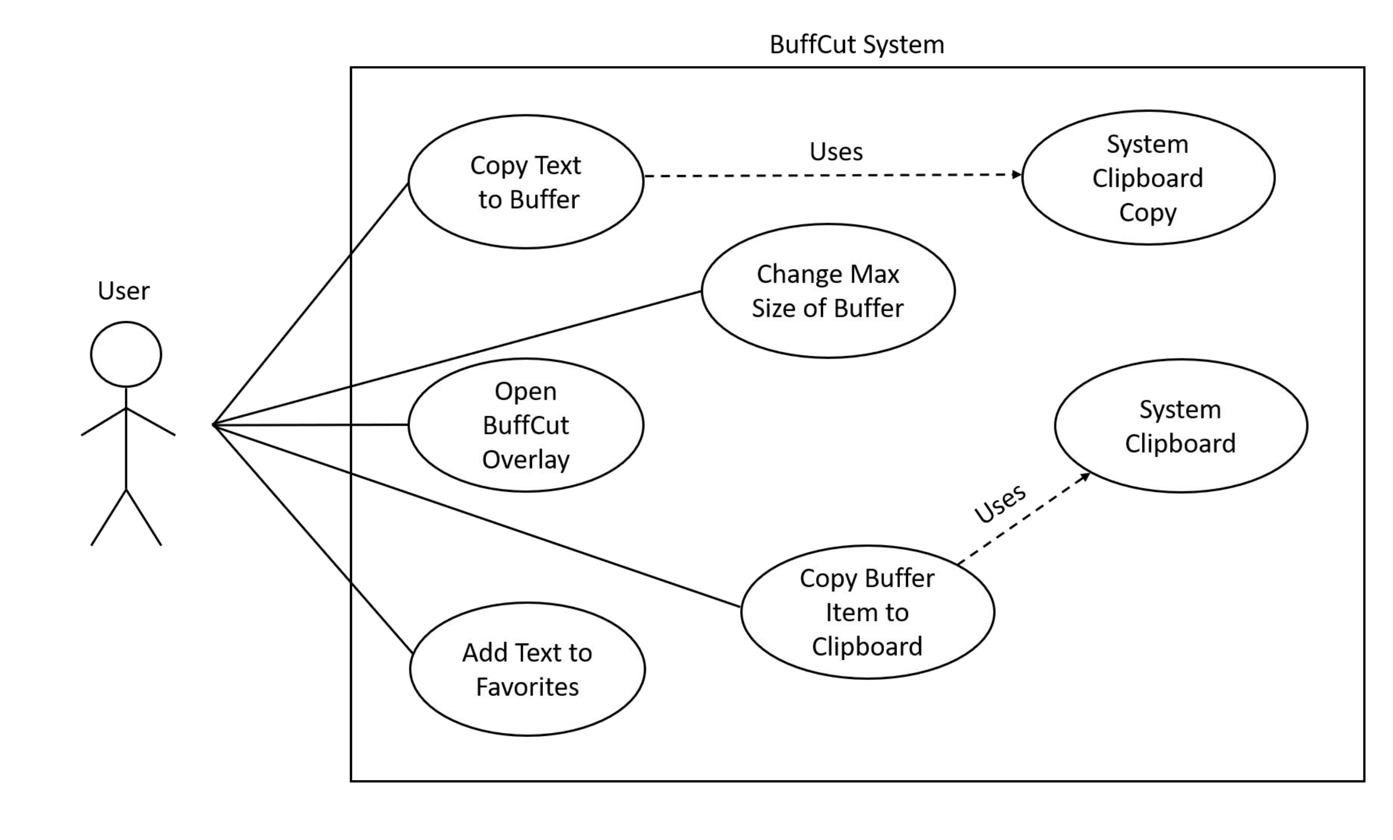
ClipboardTab

+ OnCreateView (inflator, container, saved)

FavoritesTab

+ OnCreateView (inflator, container, saved)

Use Case Diagram



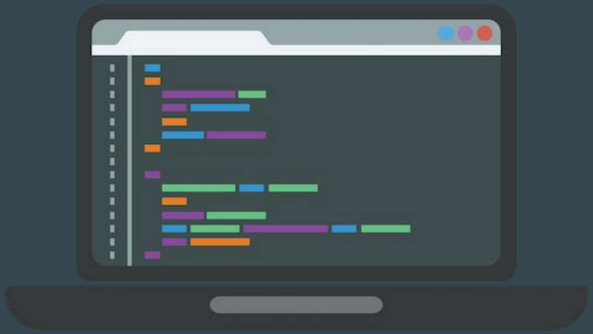
Lessons Learned

- We learned about the importance of gathering requirements.
- We learned how to work effectively on a Kanban board.
- We learned how to use version control well.
- We learned about complex APIs and how to utilize and integrate them.
- We learned that communication can be really hard.
- We learned that design is really important to do before construction.
- We learned that Android Development is really hard and something that none of us really want to do.

Demonstration

Next Steps

- Finish hooking up preferences to actual data
- Make compatible with lower API levels
- Write tests that can verify all features of the app
- Finish all unfinished requirements in the SRS
- Fix recursion bug
- Remove scope creep
- Actually Release



Conclusion

- We need a dedicated team, for a few more weeks and this could be “done”
- Vast majority of functionality is already implemented
- We learned a lot

Thank You
From Team Monkey