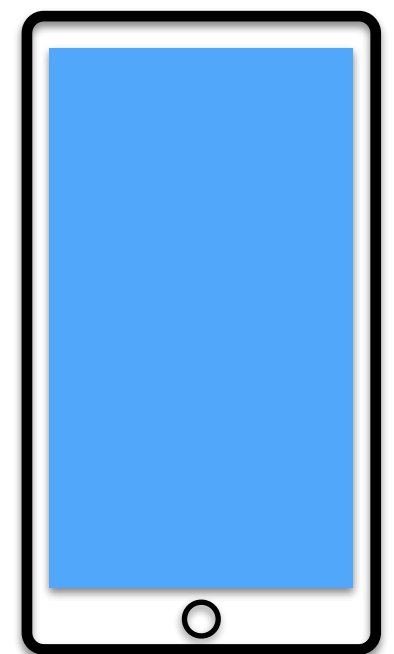
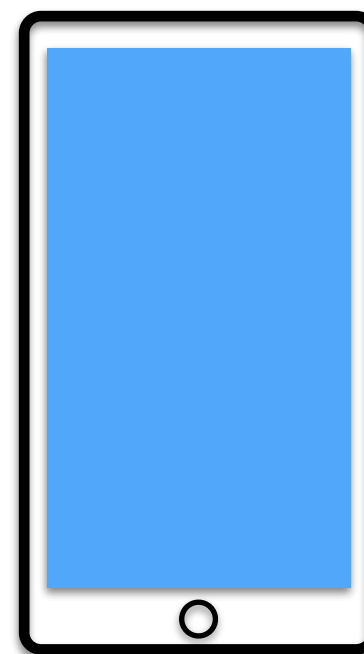
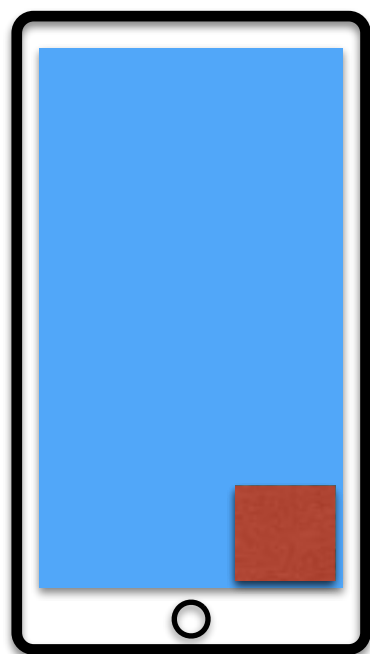


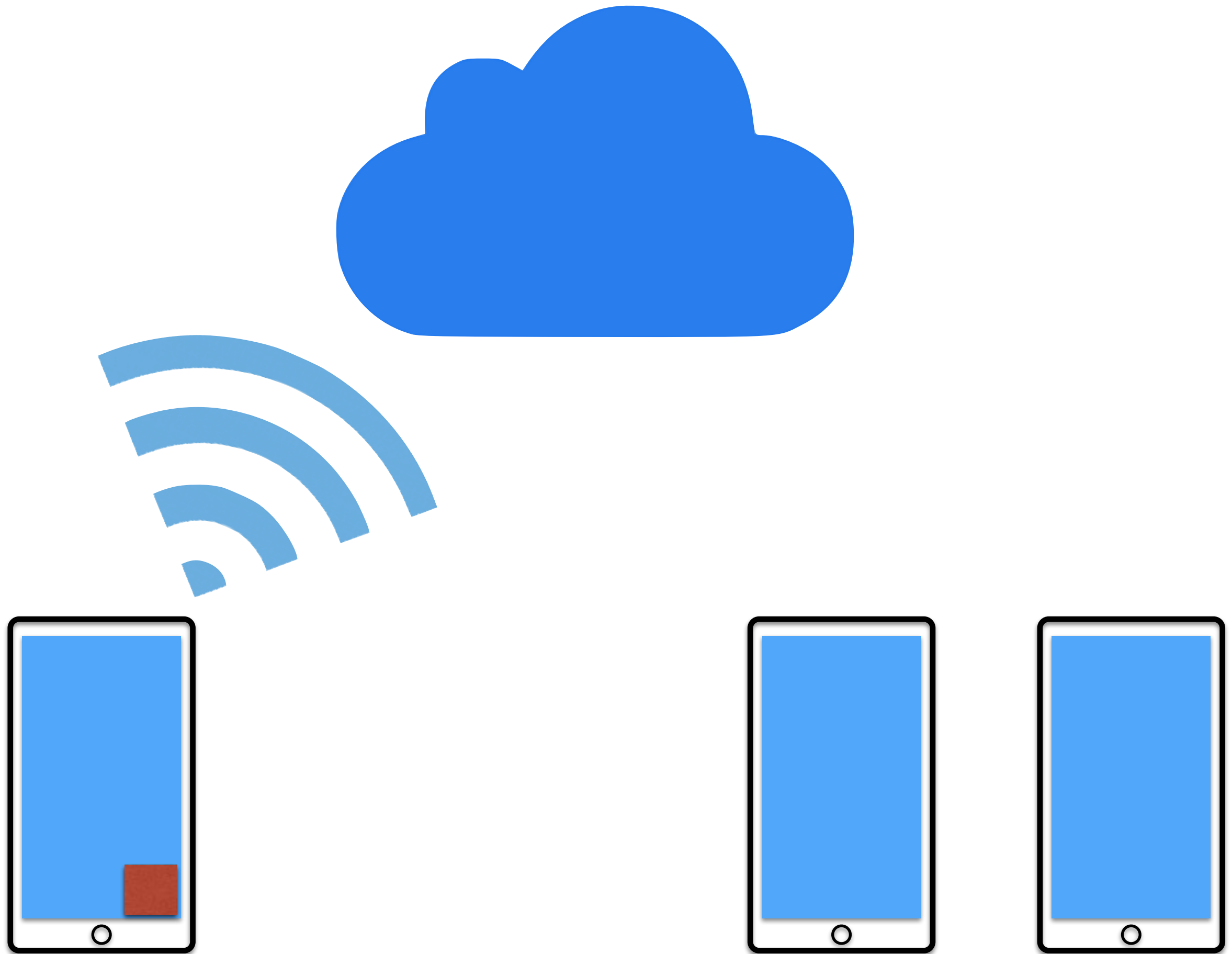
# iCloud

Key-Value Storage, iCloud Documents

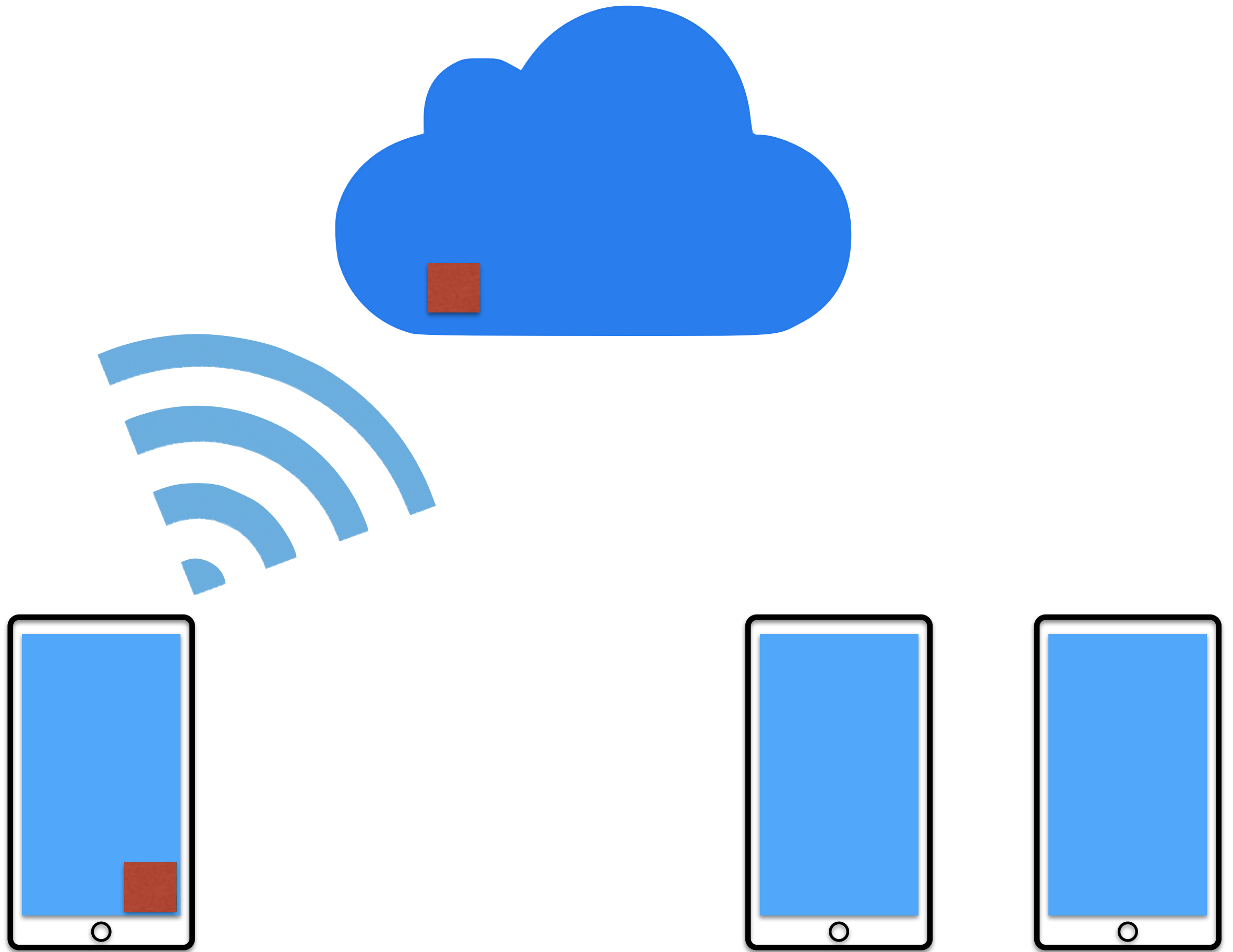
# Synchronization

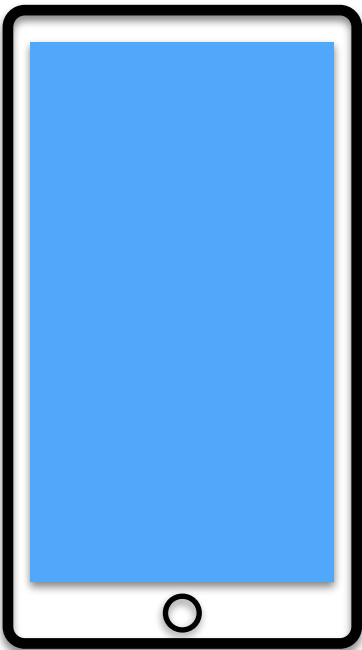
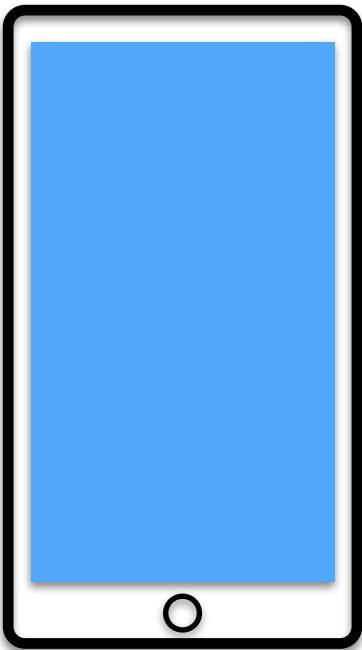
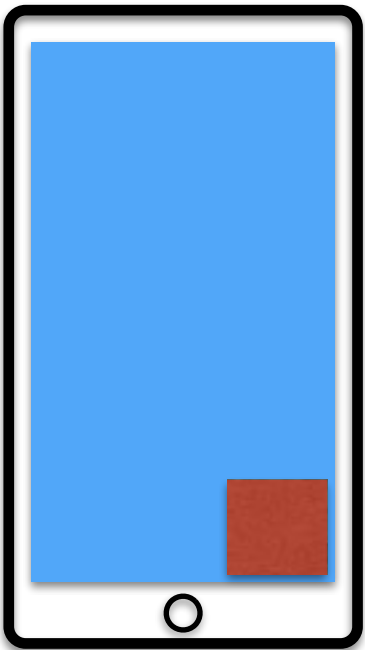
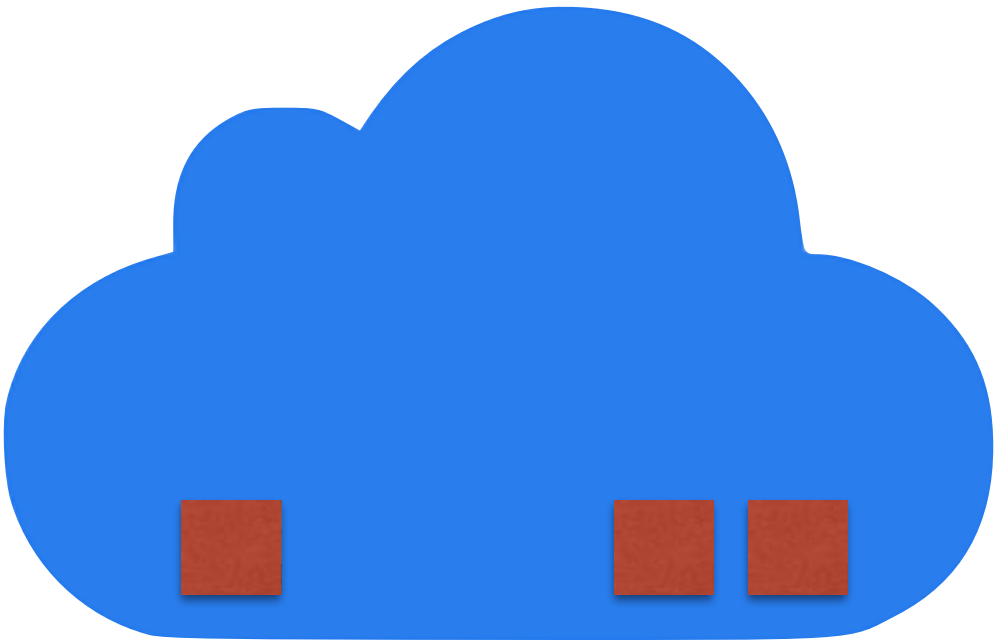


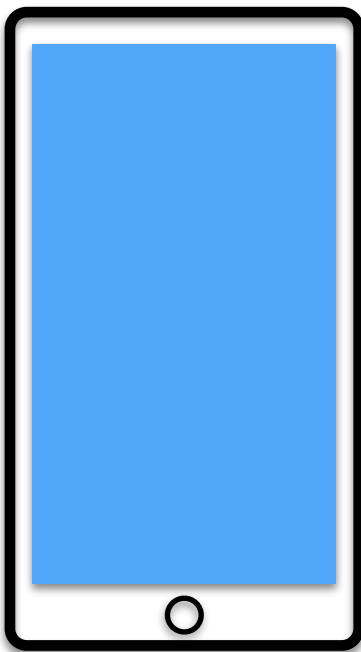
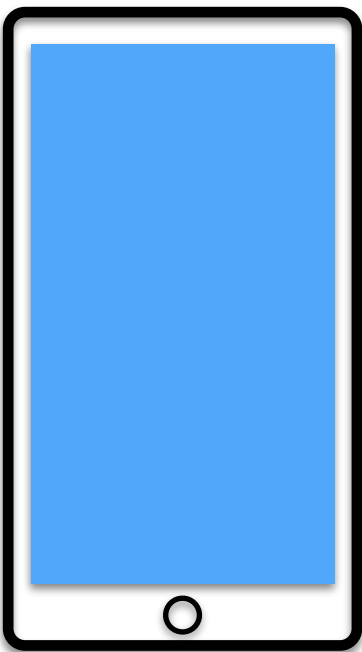
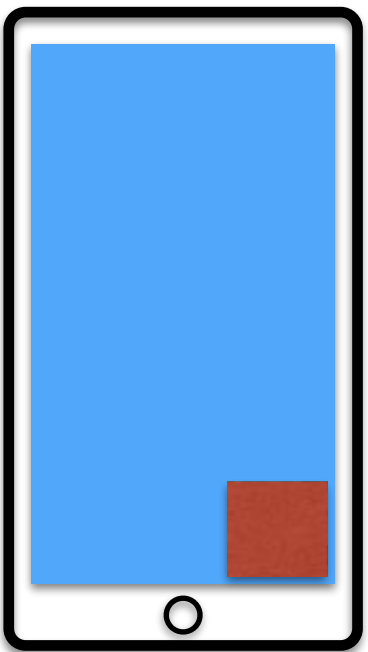
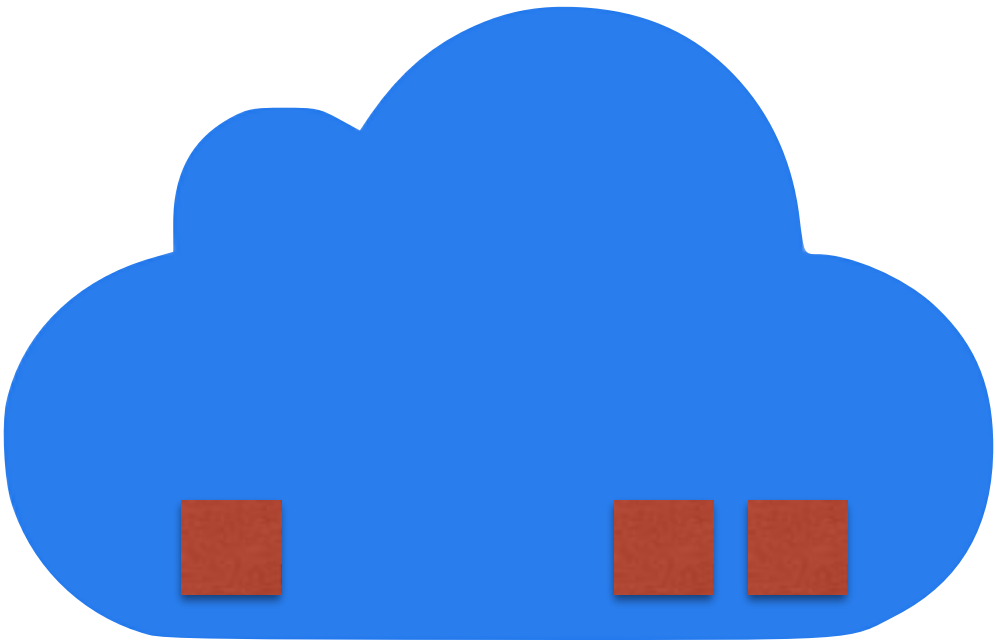
Changing the data

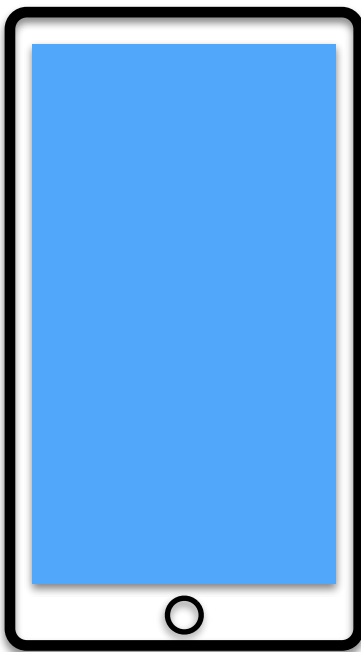
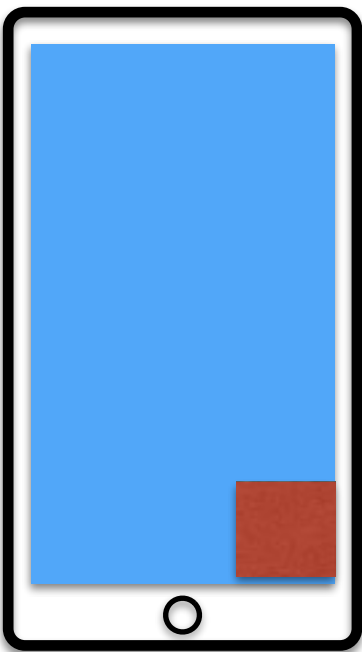
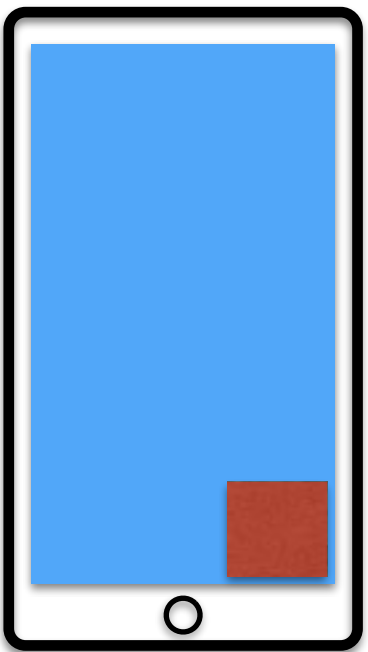
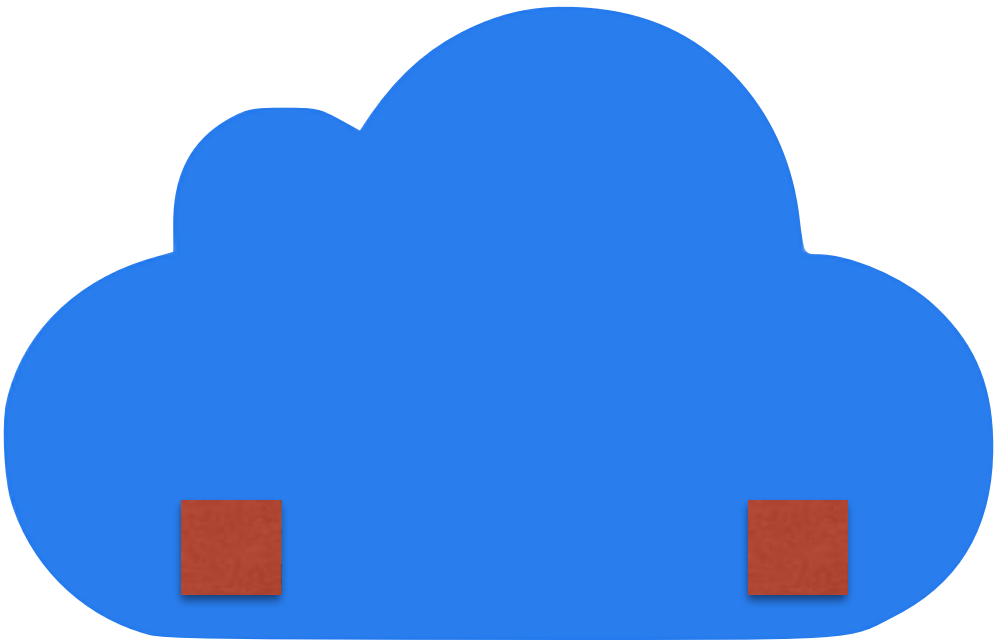


Changing the data

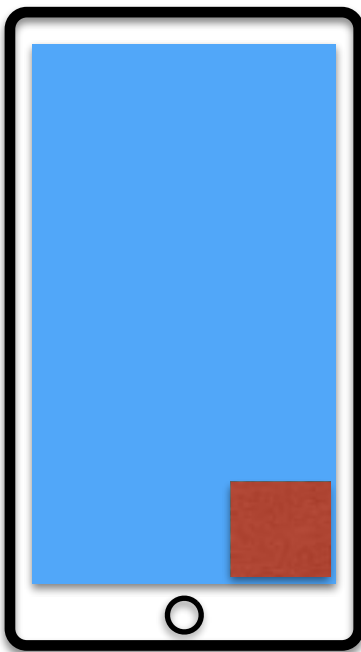
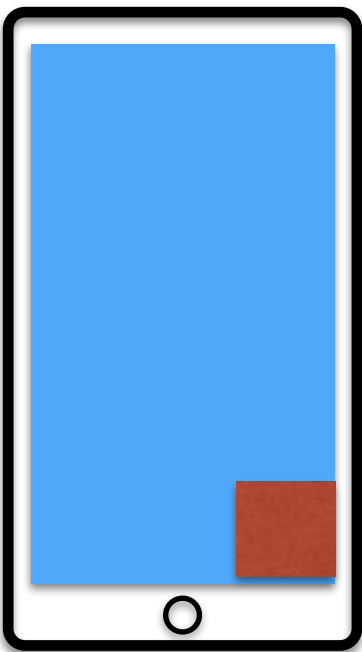
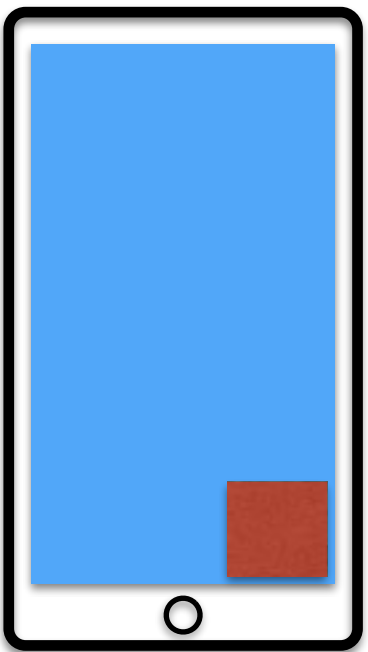
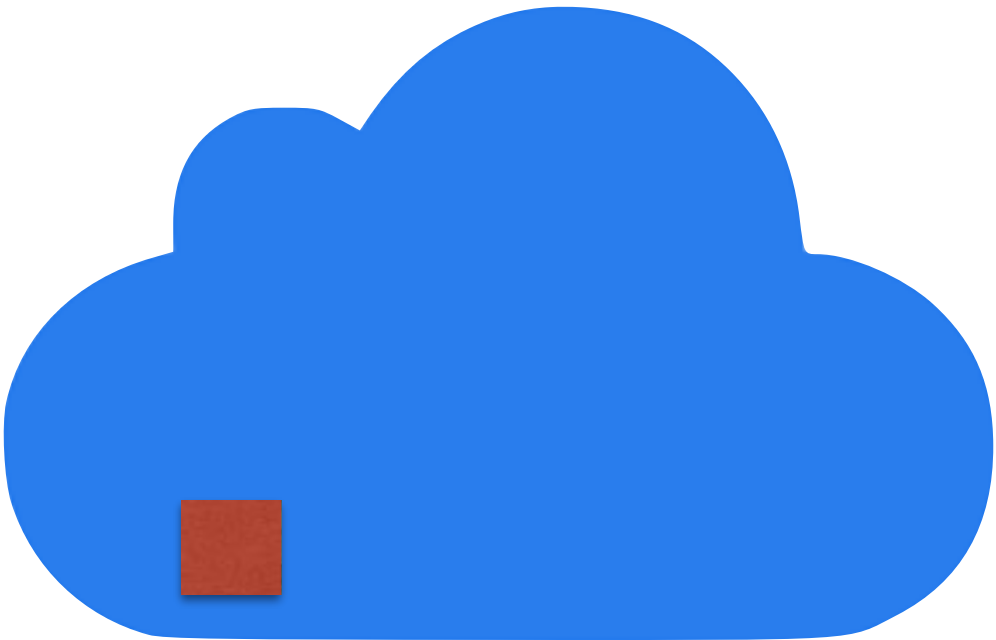


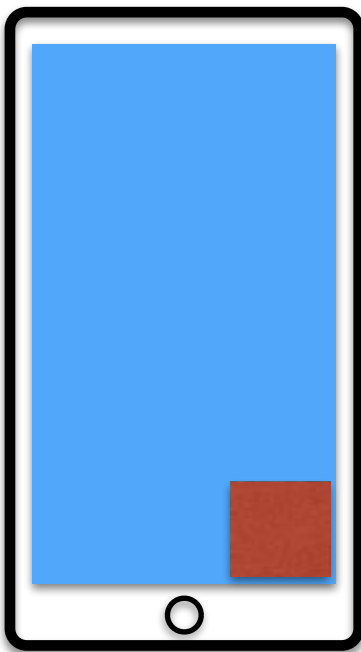
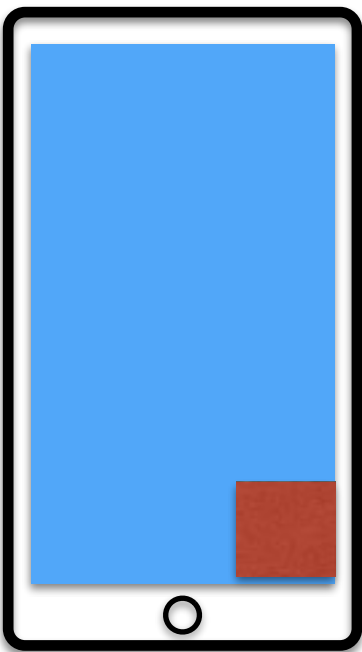
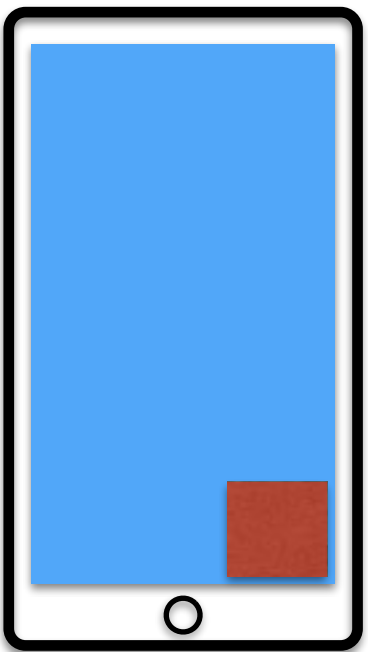
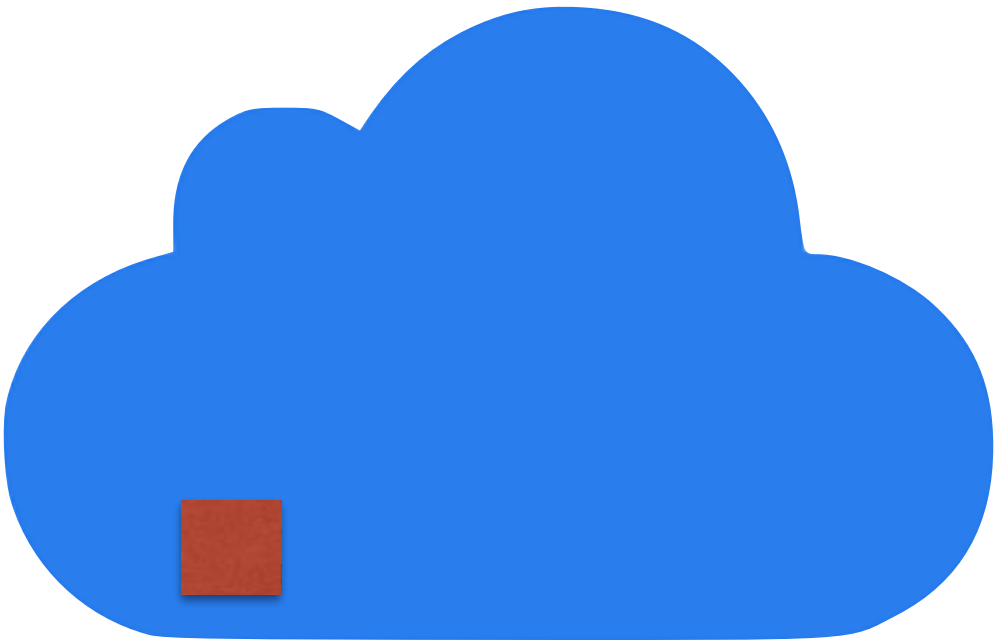












# NSUbiquitousKeyValueStore

- UserDefaults in the Cloud
- Storage is very small
- Notification for changes
- singleton - `defaultStore()`

# Read from Store

- String, Numbers, Data
- Array, Dictionary composed from above
- stringForKey, dataForKey, objectForKey

# Write to Store

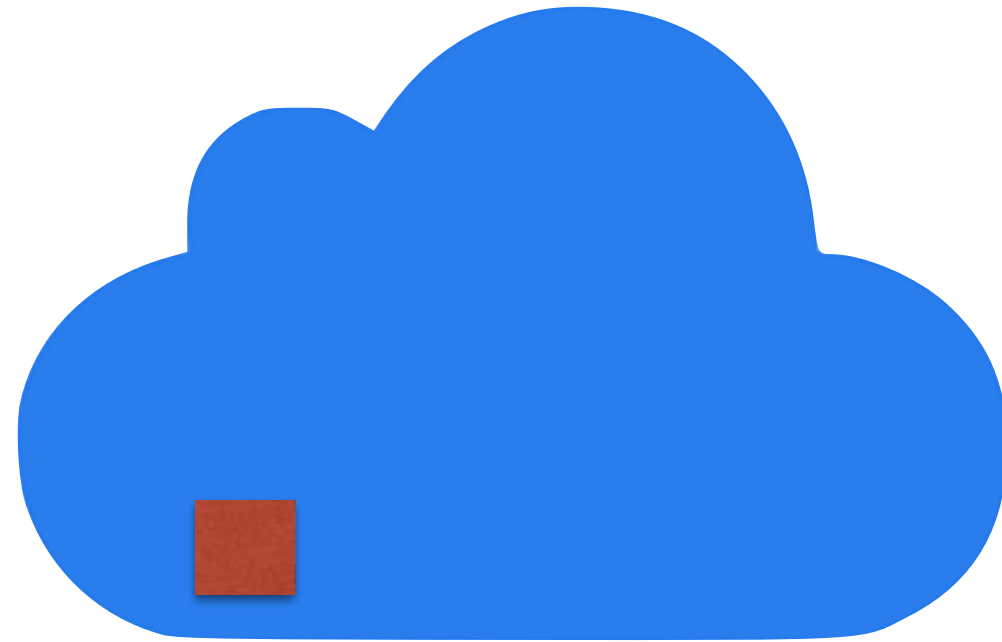
- `setString`, `setData`, `setBool`, ...
- `synchronize()`

# Notification

- NSUbiquitousKeyValueStoreDidChangeExternallyNotification
- NSUbiquitousKeyValueStoreQuotaViolationChange
- NSUbiquitousKeyValueStoreAccountChange

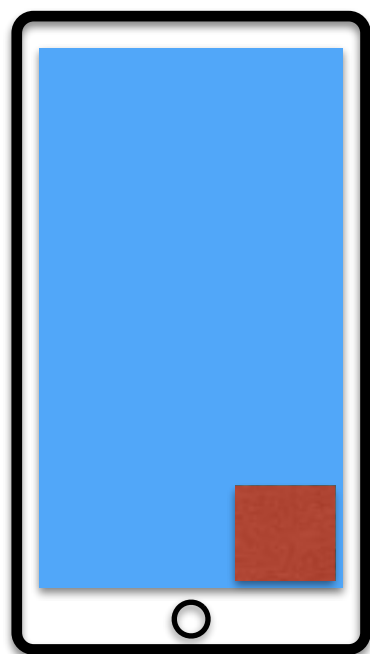
# Files

iCloud Documents

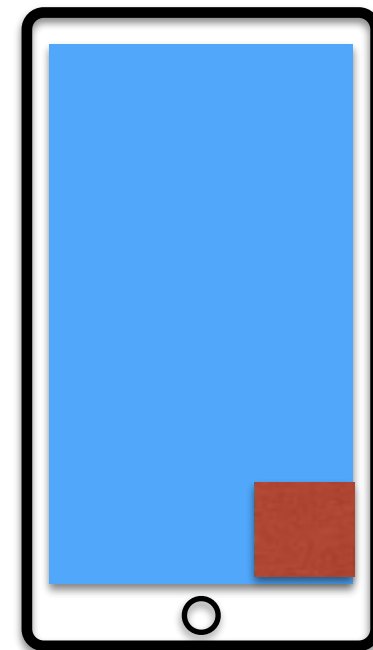


---

Synchronization without internet

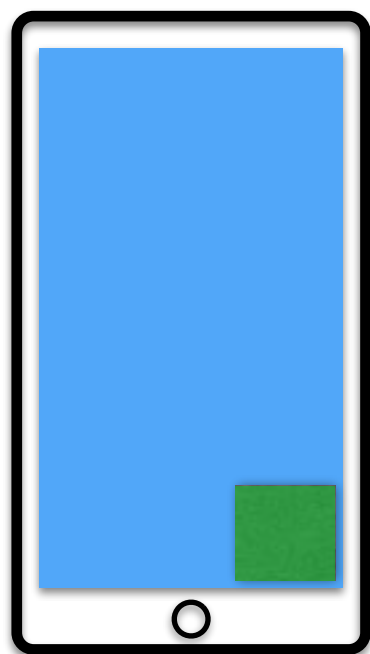
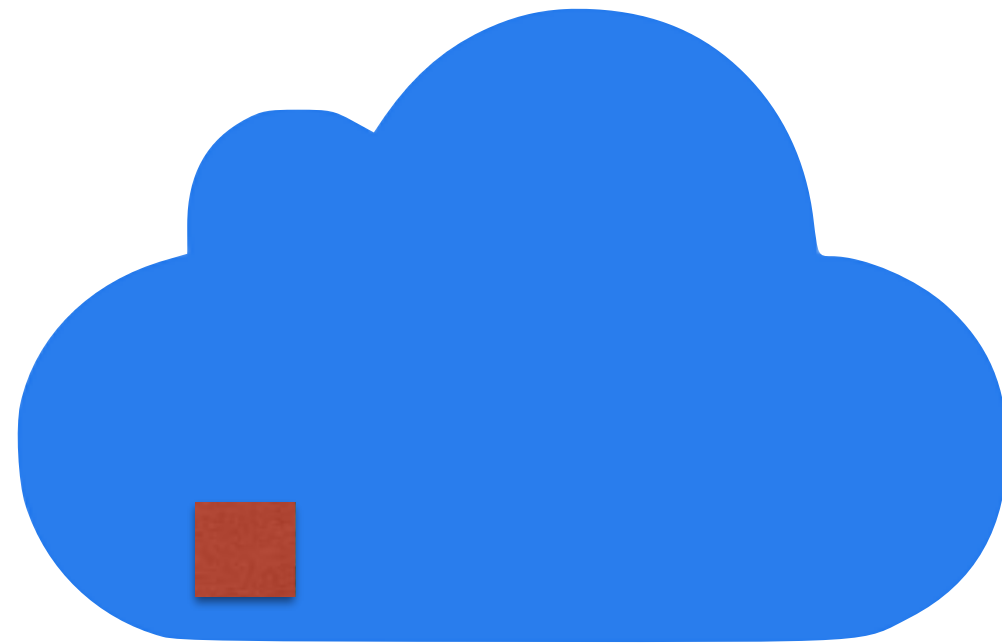


No internet

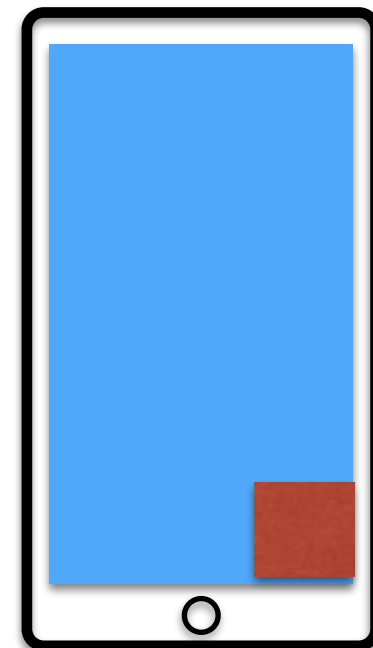


No internet

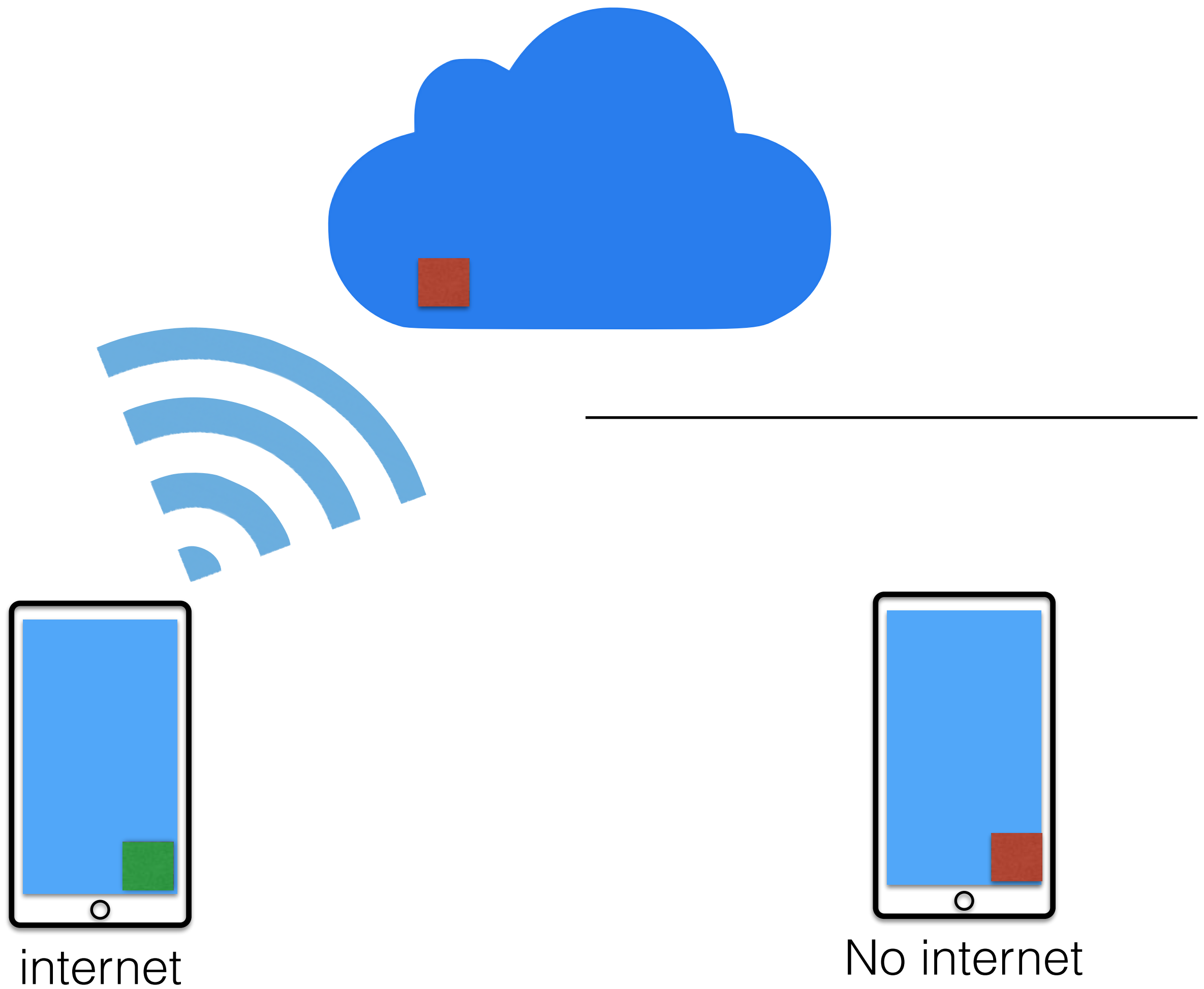


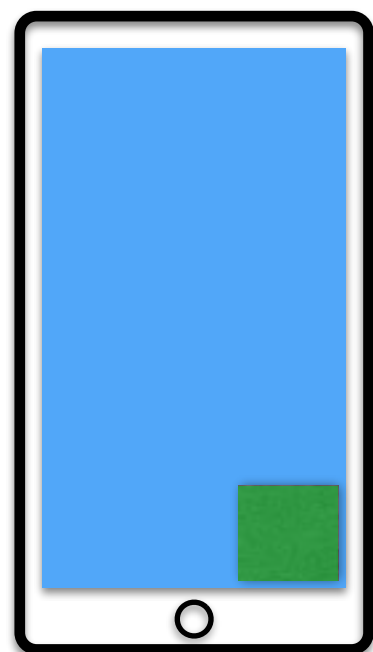


No internet

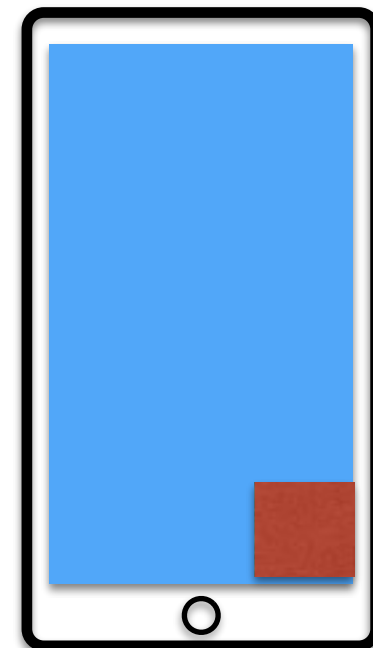


No internet

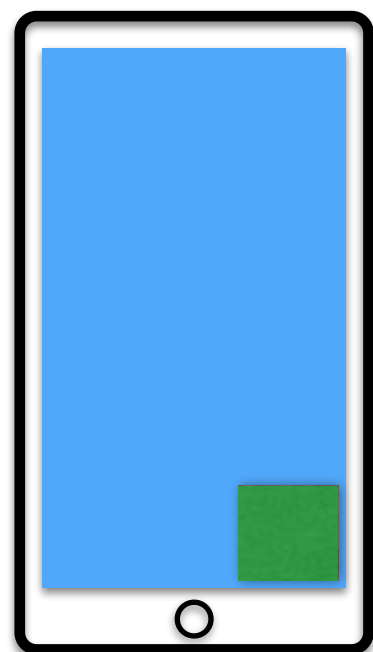




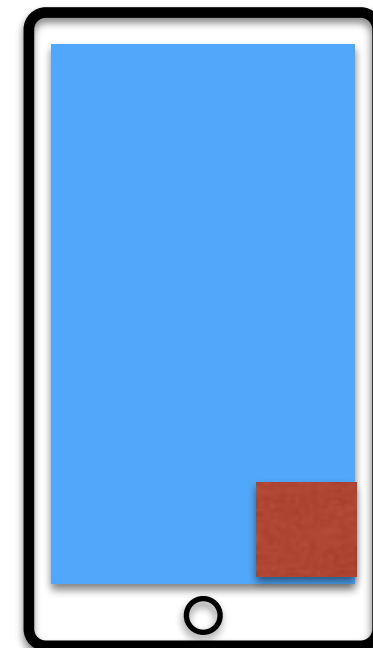
internet



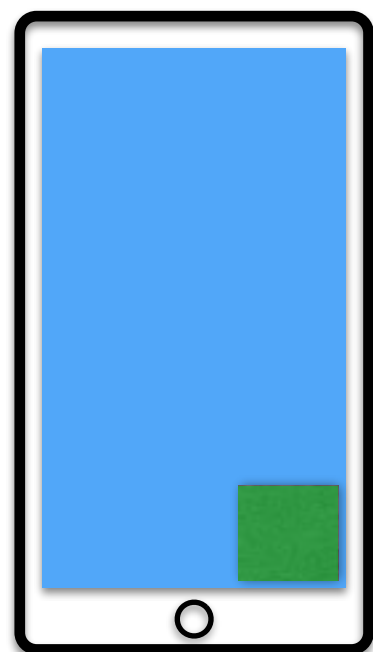
No internet



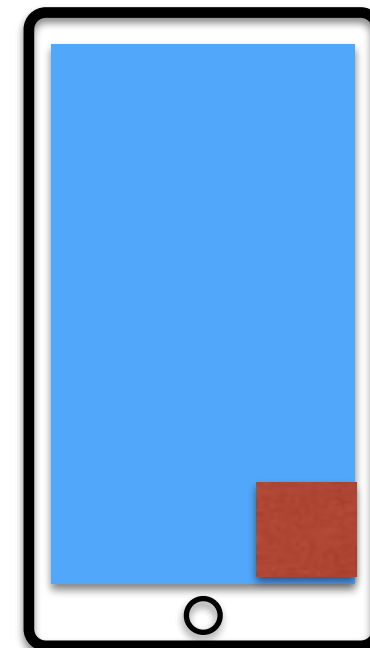
internet



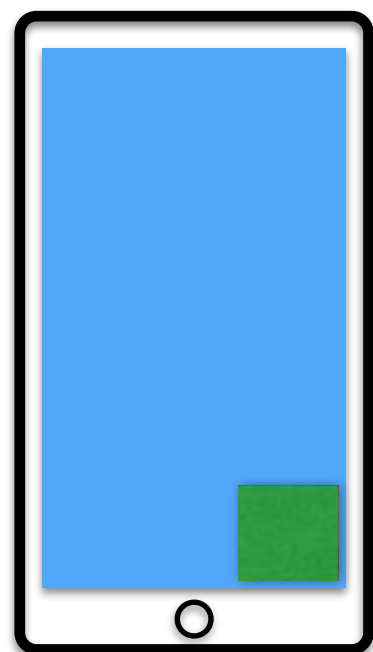
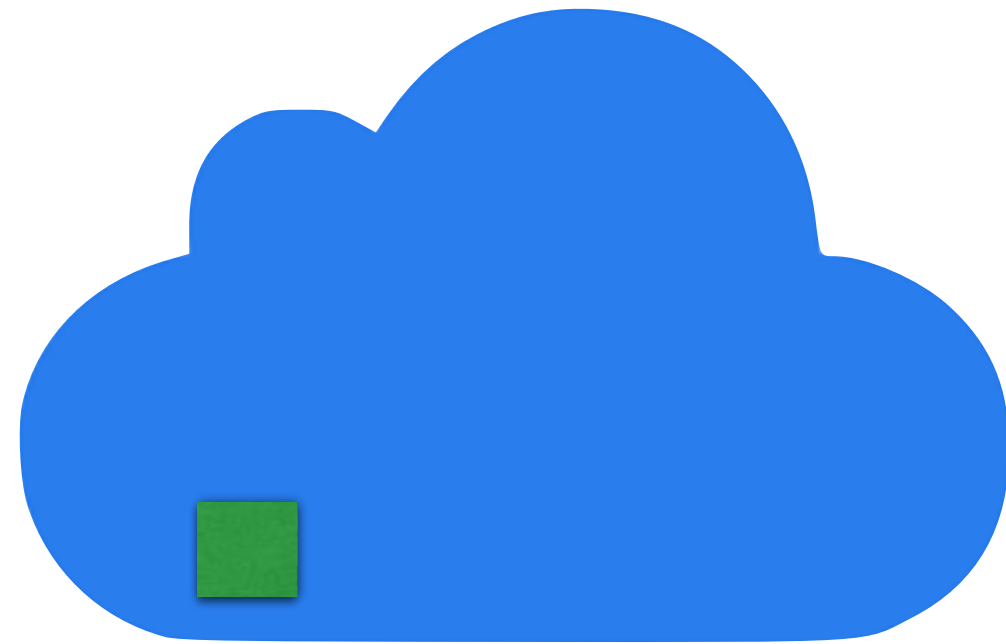
No internet



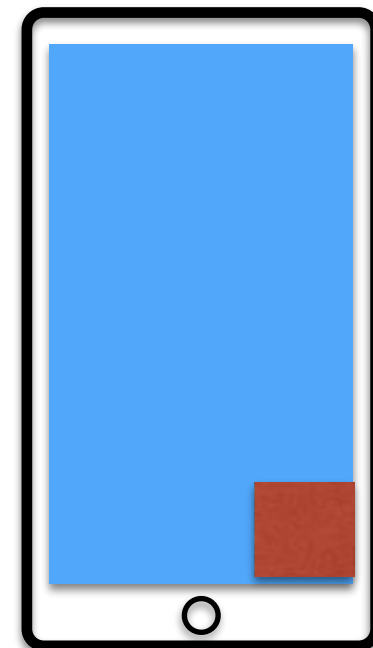
internet



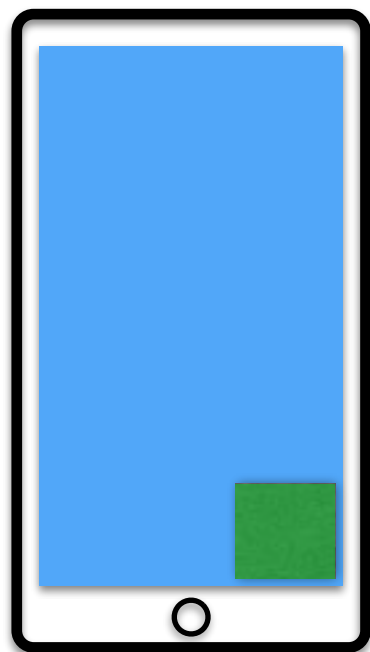
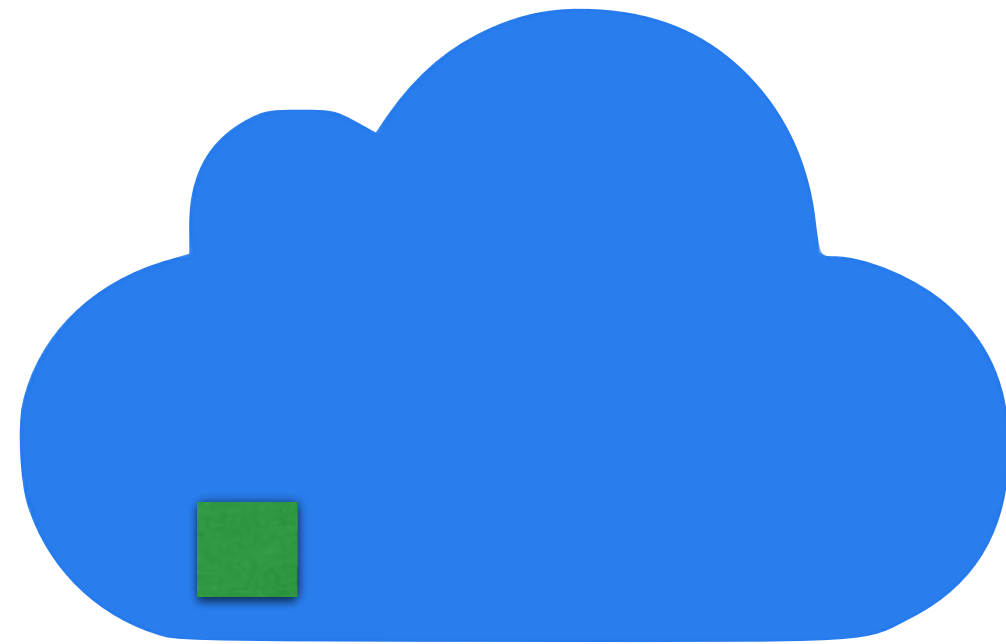
internet



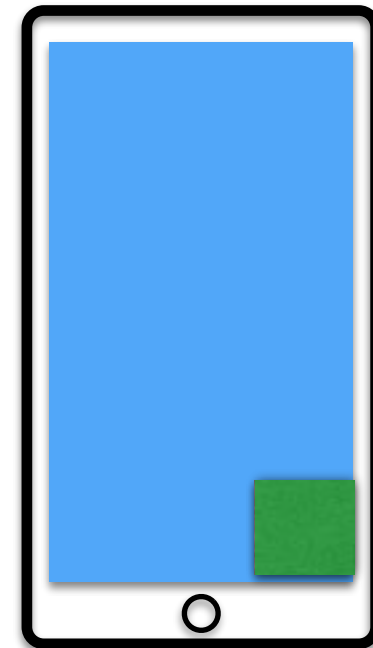
internet



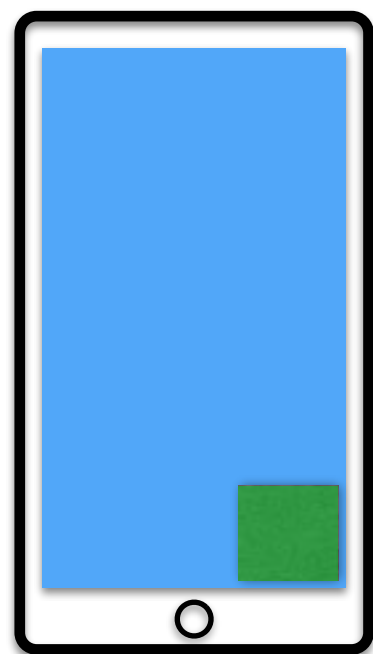
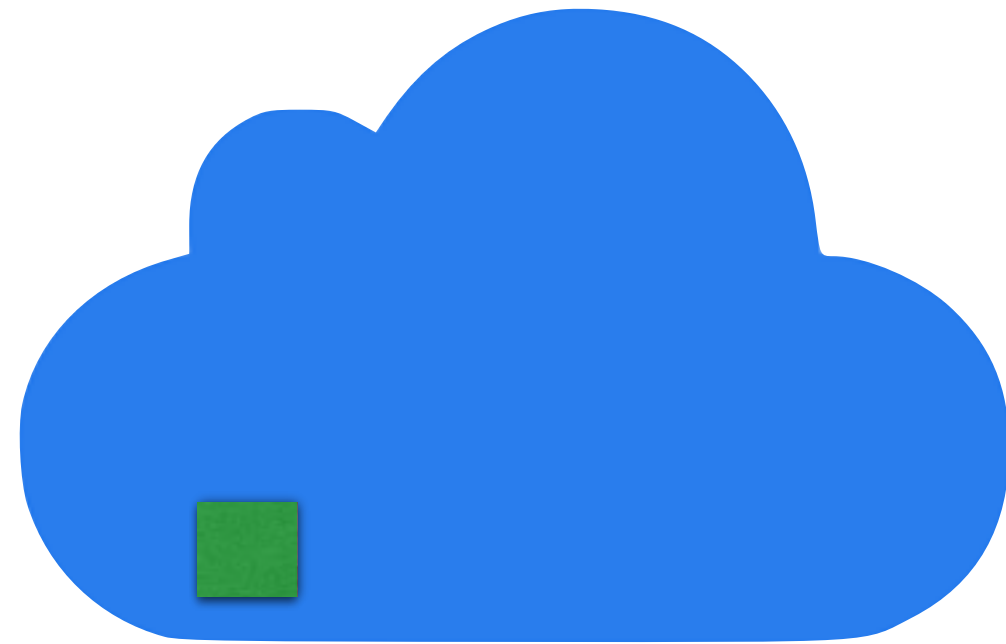
internet



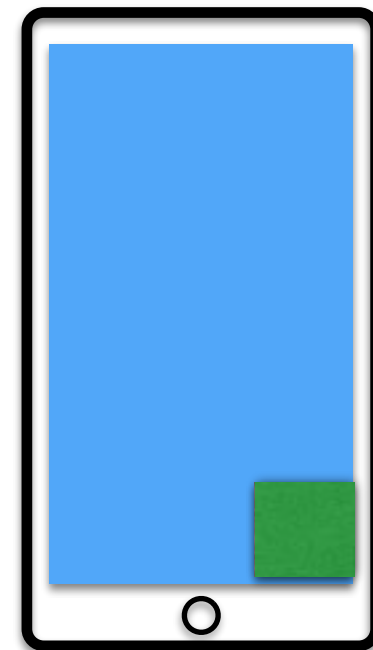
internet



internet

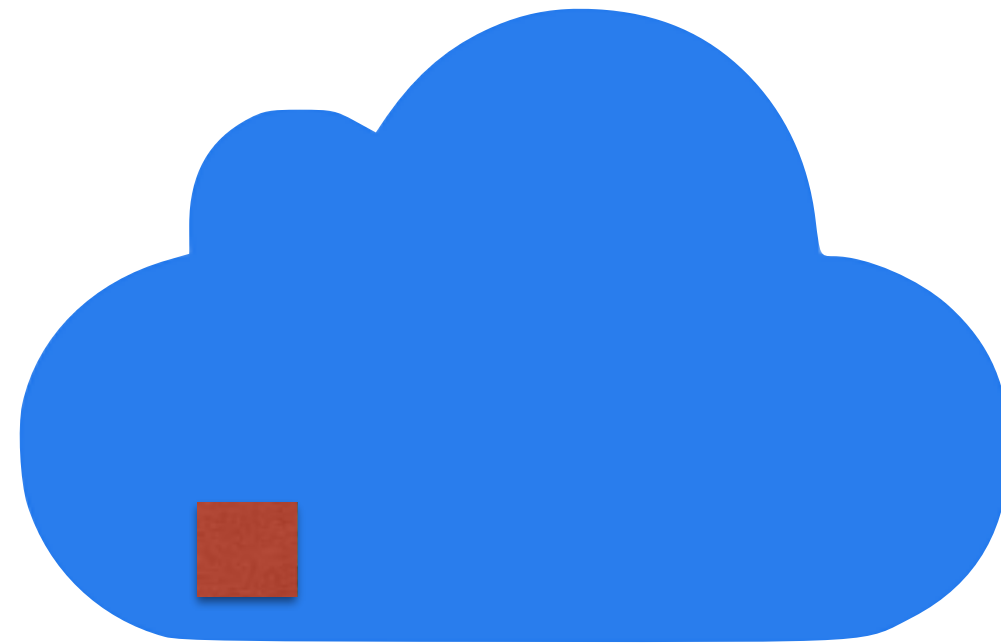


internet



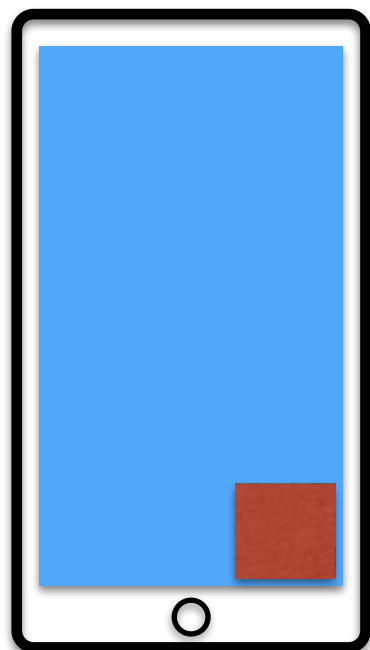
internet



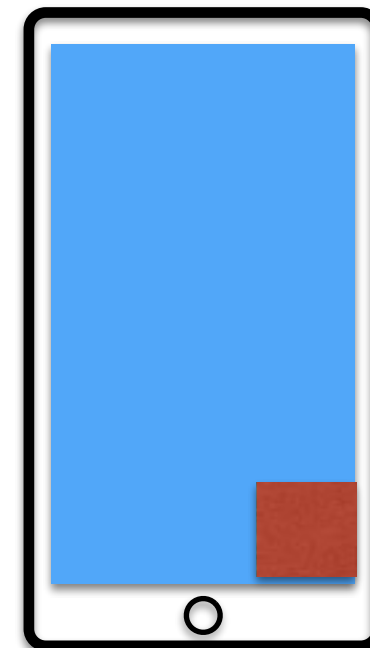


---

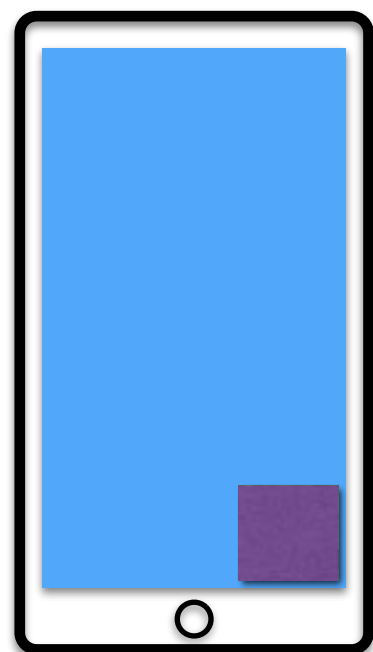
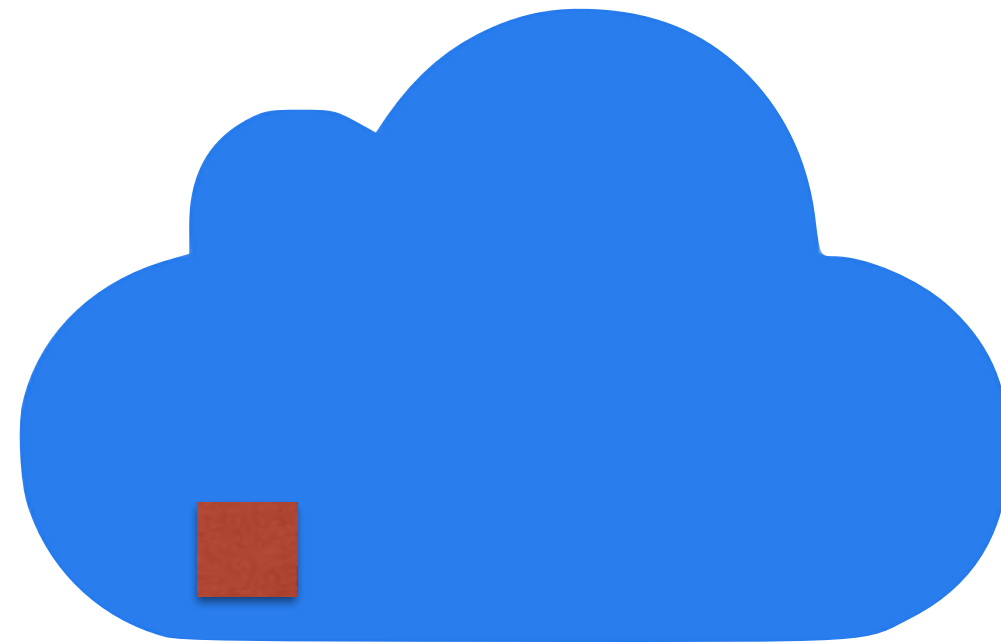
Conflicts



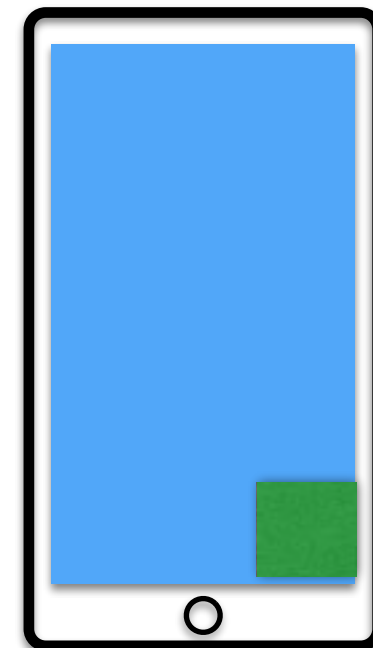
No internet



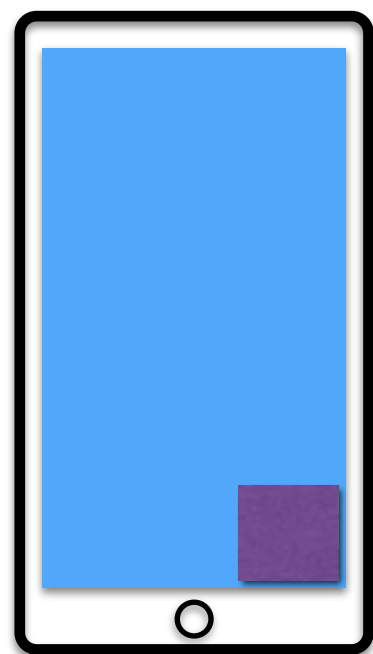
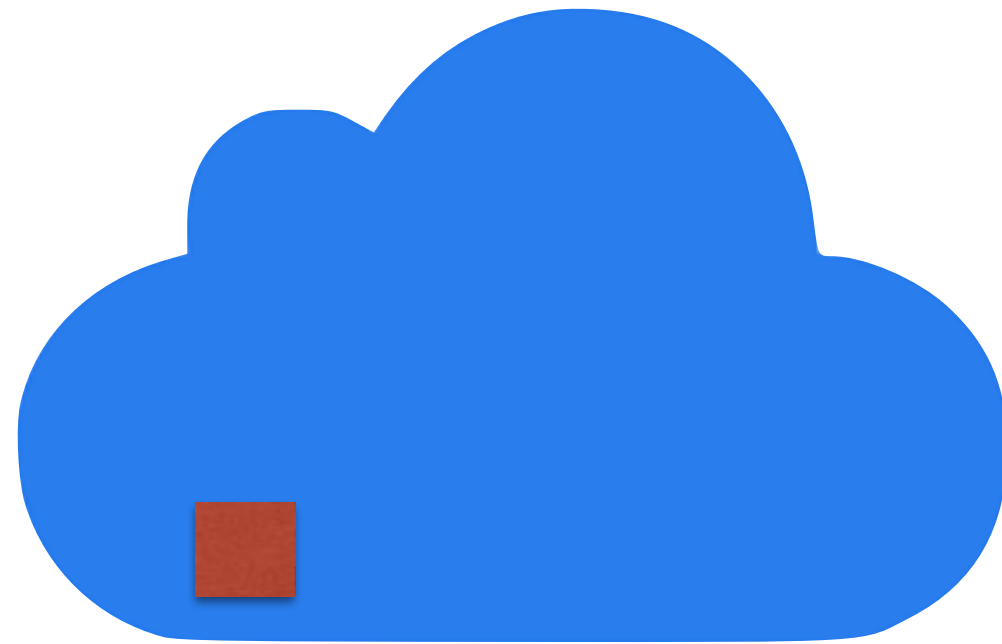
No internet



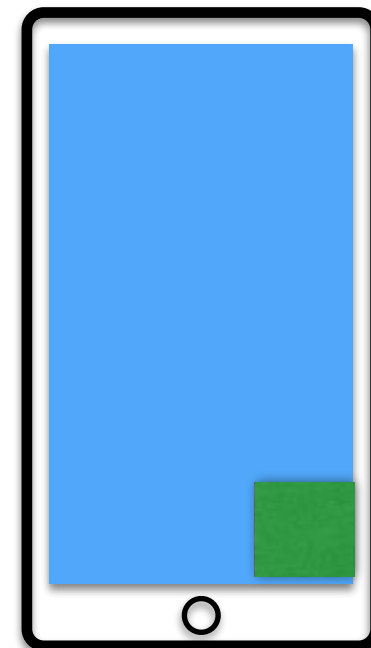
internet



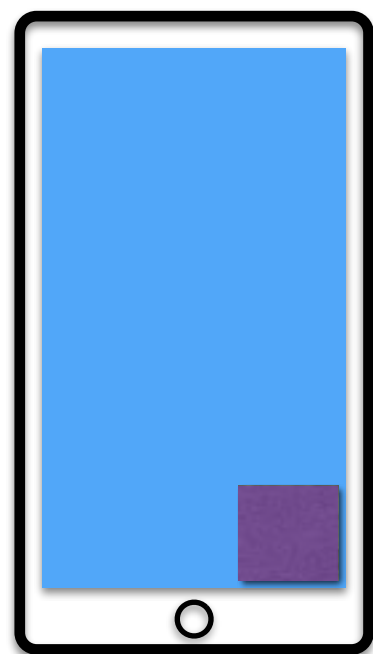
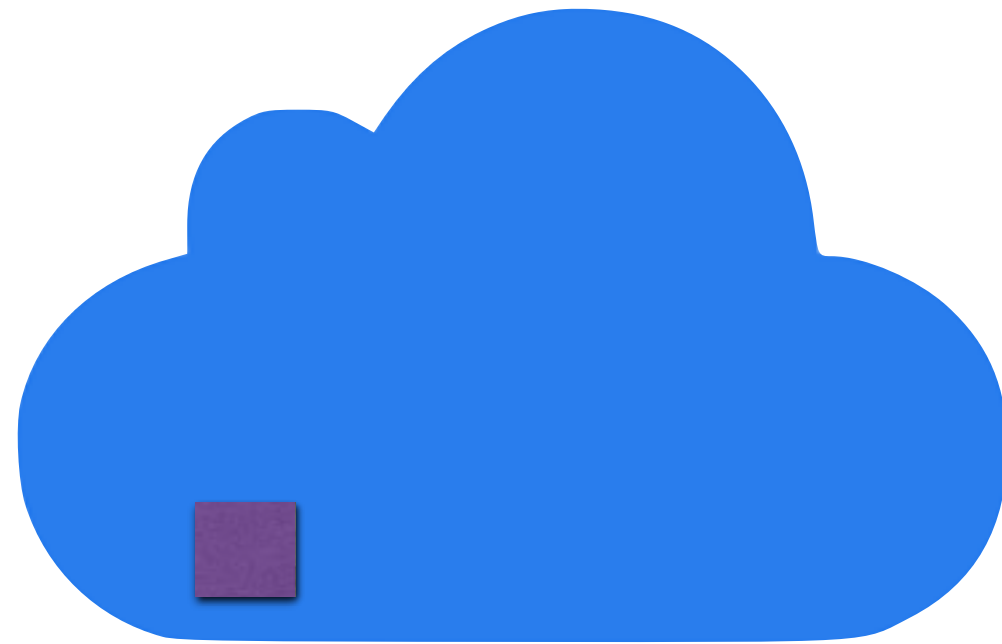
No internet



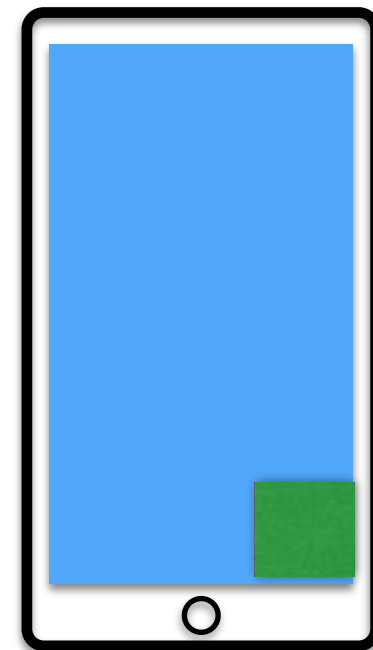
internet



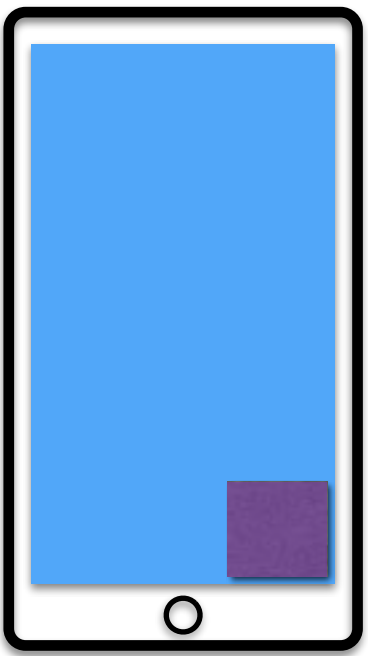
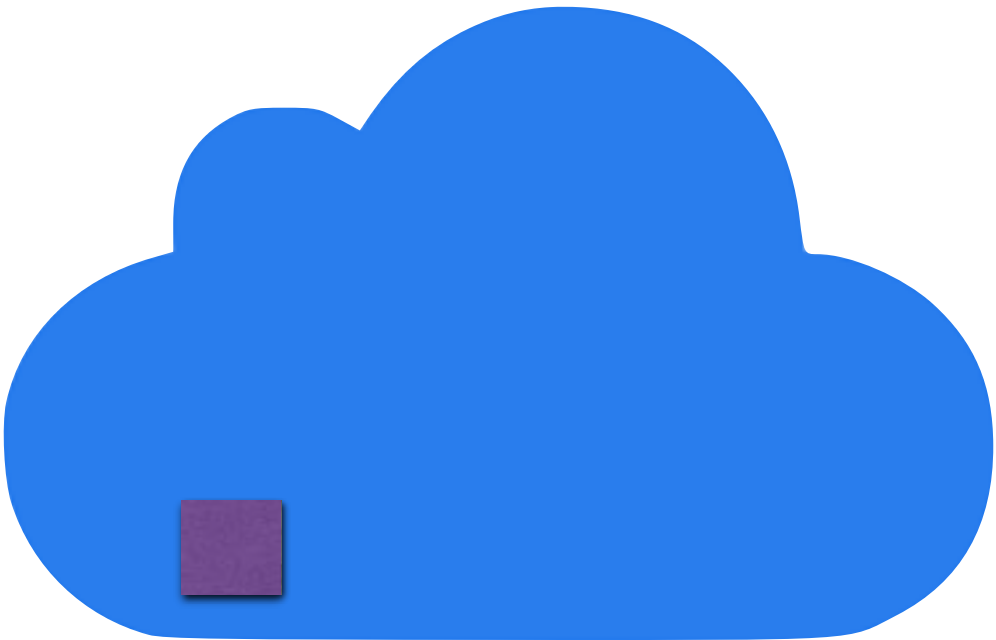
No internet



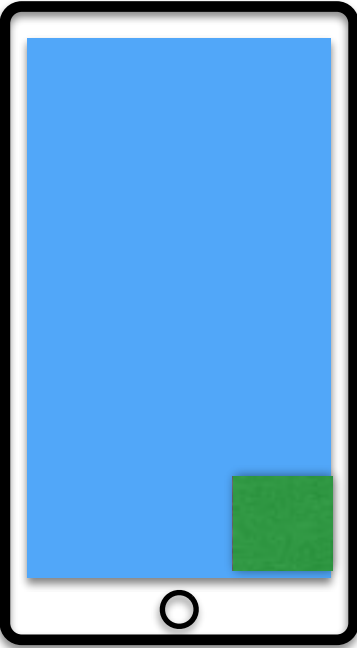
internet



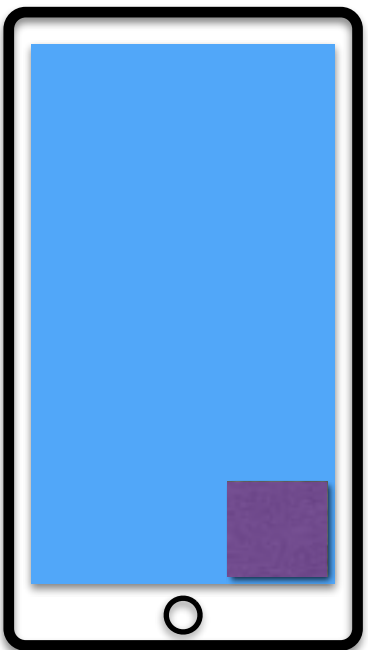
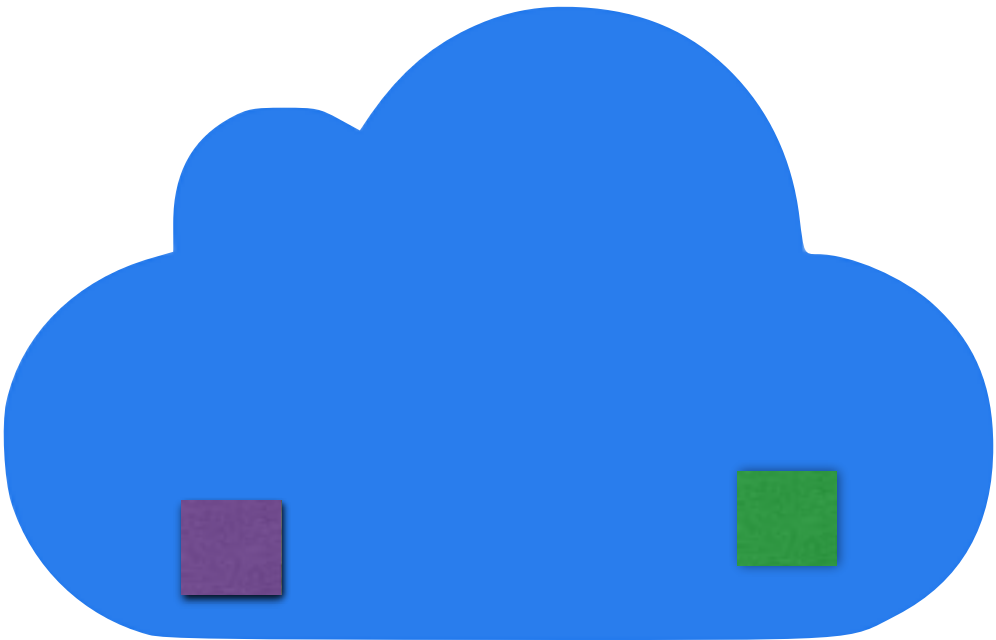
No internet



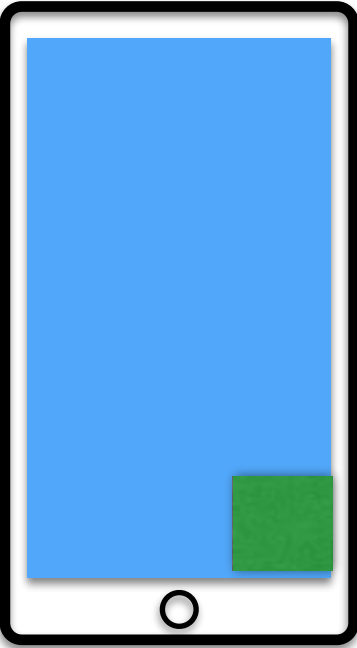
internet



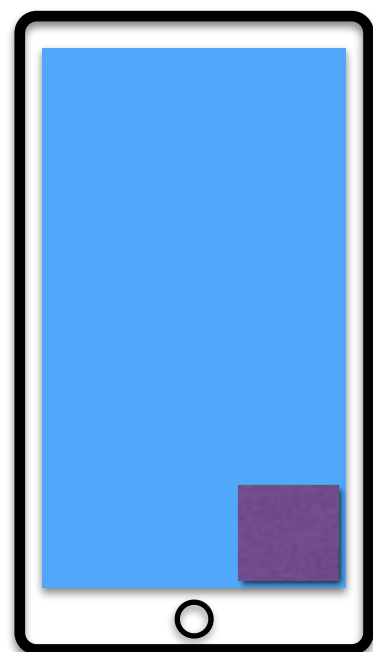
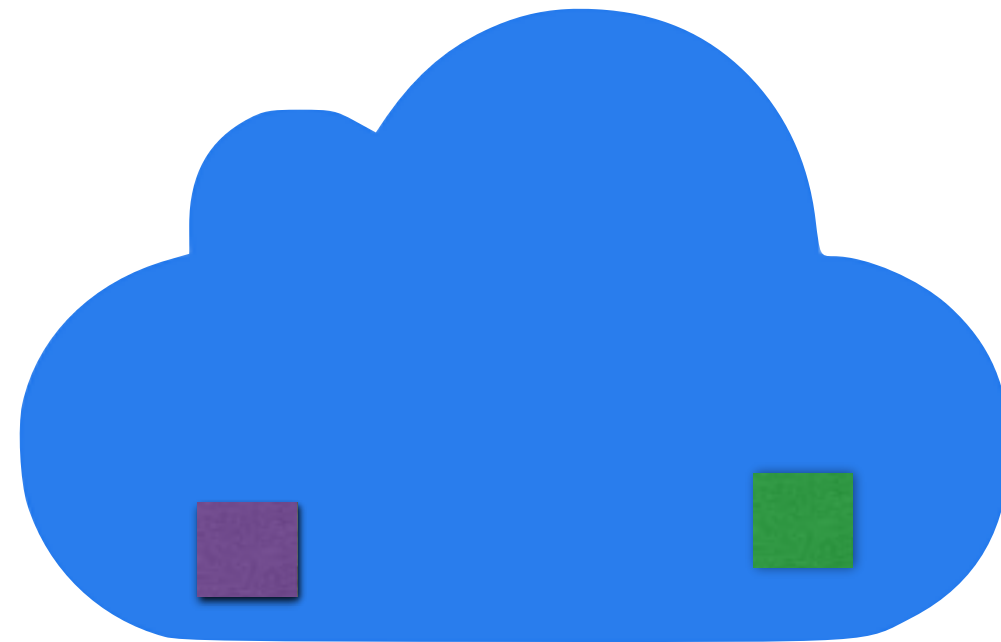
internet



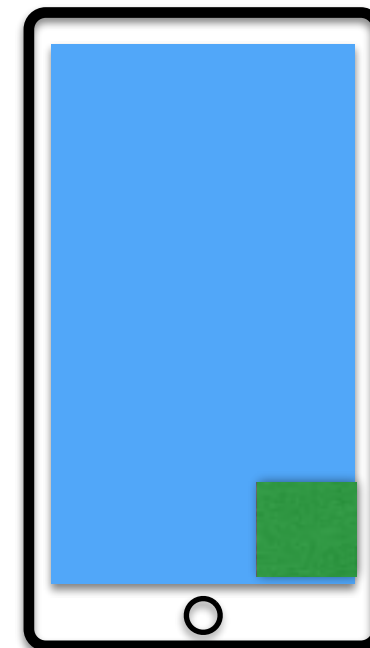
internet



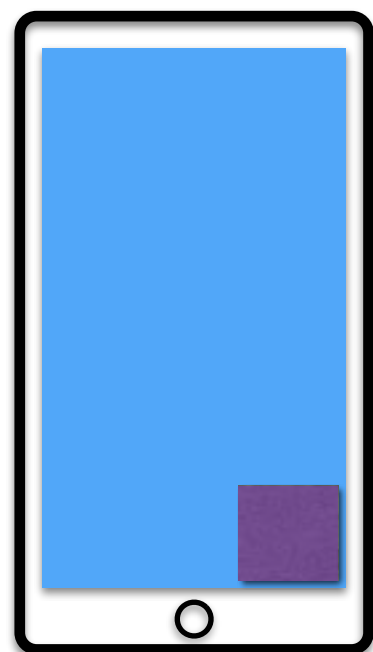
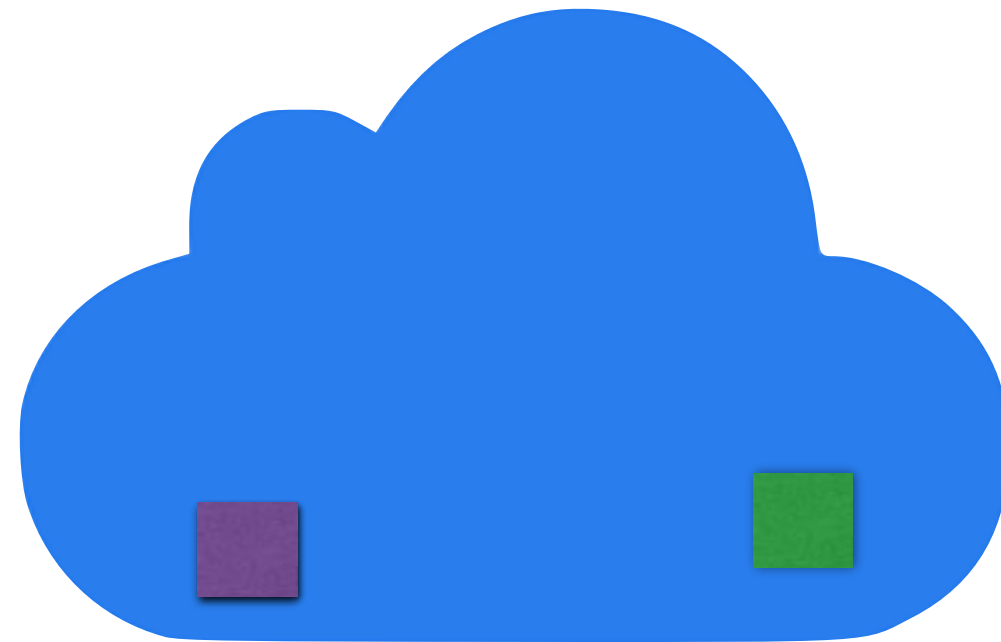
internet



internet

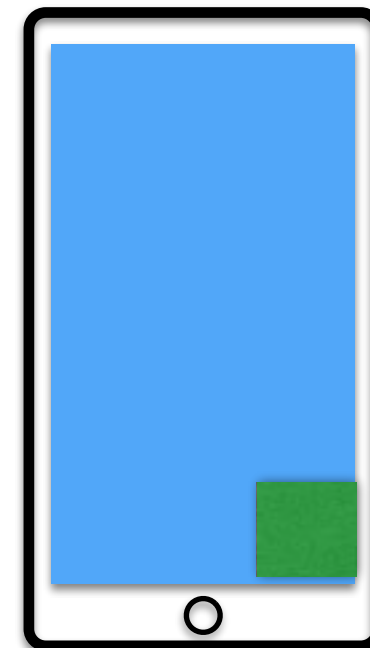


internet



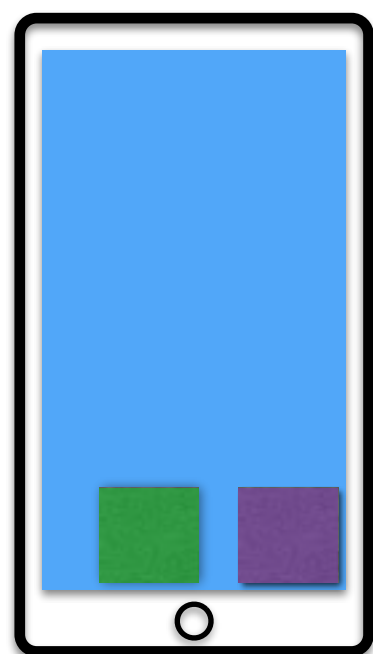
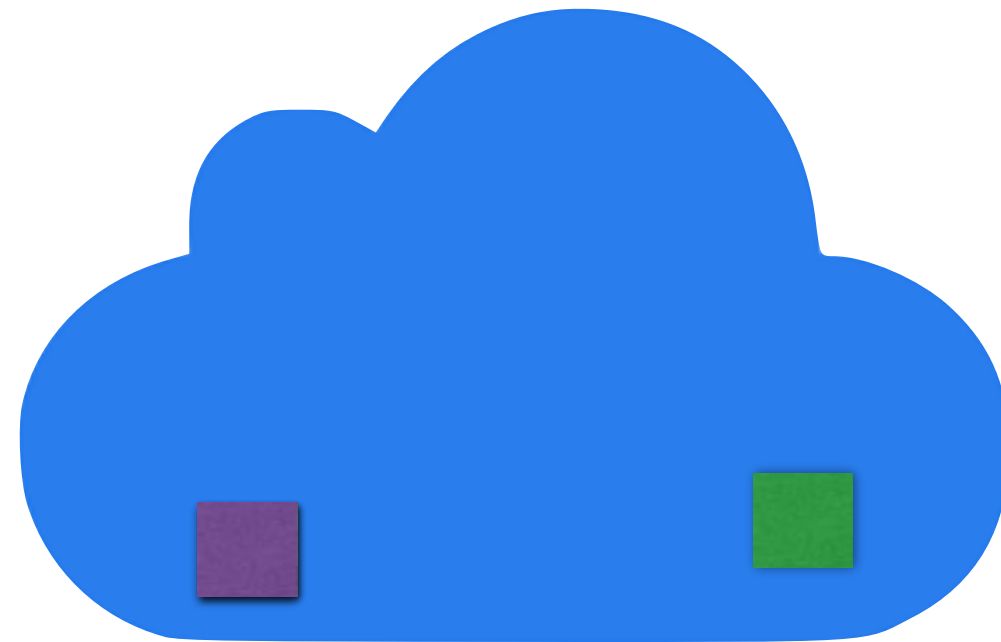
internet

Conflict!



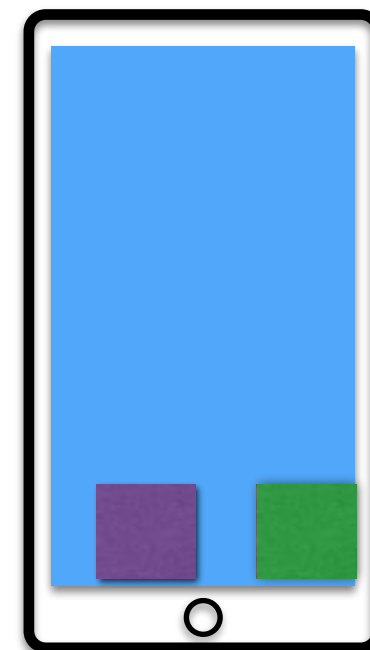
internet





internet

Conflict!



internet

# NSFilePresenter

- Protocol
- File and a callbacks about changing it
- presentedItemURL: NSURL
- presentedItemOperationQueue:  
NSOperationQueue

# FileCallbacks

- `func presentedItemDidChange()`
- `func presentedItemDidGainVersion(version: NSFileVersion)`
- `func presentedItemDidLoseVersion(version: NSFileVersion)`
- `func presentedItemDidResolveConflictVersion(version: NSFileVersion)`

# NSFileCoordinator

- `init(filePresenter: NSFilePresenter)`
- `NSFileCoordinator.addFilePresenter(...)`
- `NSFileCoordinator.removeFilePresenter(...)`
- `NSFileCoordinator.coordinateFor...`