

Collaborative XKCD Tagging Developer Documentation

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1 My Modifications

To make the standard application collaborative, I added an input field, two buttons (add, remove), and a TextView component to the comic layout. Then, when a comic view fragment is being instantiated, I merely bind to the firebase DB, requesting the item with a key = to the number of the comic. When users add or remove a tag, I update text field and push the change to firebase.

2 Activities

1. AboutActivity - Displays a simple About Screen
2. BaseActivity - Sets up toolbar, colors, navigation drawer, etc.
3. CustomFilePickerActivity - Self describing. For picking where to store offline data I believe
4. DonateActivity - For donations
5. MainActivity - Sets up comic pager, loads files from offline, favorites db, etc.
6. NestedSettingsActivity - Handles the logic of setting/recalling various settings.
7. SearchResultsActivity - Displays results from searching for a comic
8. SettingsActivity - Handles preference based settings
9. WhatIfActivity - Loads, Stores, and Displays the "What If" blog articles

3 CustomTabHelpers

1. BrowserFallback - When the app encounters an error displaying a page or comic, it can fallback by opening a web browser to the associated page
2. CustomTabActivityHelper - Provides a way to open a page in a custom chrome tab, which provides the speed of chrome (As opposed to the standard browser) with the customization of a webview control
3. CustTabsHelper - Provides utility methods for the previous class.

4 database

1. DatabaseManager - Responsible for storing/recalling/updating user data regarding certain comics - eg, read or not, favorited, etc.
2. RealmComic - RealmObject providing persistence for comics (number, isRead, title, url, etc.)

5 Fragments

1. NestedPreferenceFragment - Provides tasks for deleting comics and articles, and a task for repairing the comics database (In the context of persistence)

5.1 Comics

1. ComicBrowserFragment - Fragment for displaying a comic in the browser
2. ComicFragment - Abstract fragment generalizing the functionality of how comics are displayed, as well as methods for navigating to particular comics, getting the most recent comic, interacting with the pager, etc.
3. FavoritesFragment - Provides functionality for downloading favorites, deleting images, and updating favorites.
4. OfflineFragment - Overrides standard ComicFragment functionality to display/save images from/to the filesystem cache

5.2 Overview

1. OverviewBaseFragment - Generalizes functionality related to, but not specifically of, displaying comics (e.g. bookmarking comics, displaying random comics, etc.)
2. OverviewCardsFragment - General layout for cards?

3. OverviewListFragment - General layout/functionality behind items in the list of comics
4. OverviewRecyclerBaseFragment - Provides bookmarking, and adapters for recyclerview consumers
5. OverviewStaggeredGridFragment - Provides a different grid layout manager to the standard overview grid

5.3 WhatIf

1. WhatIfFavoritesFragment - Variation of the WhatIfFragment for favorited WhatIf articles
2. WhatIfFragment - Displays WhatIf articles
3. WhatIfOverviewFragment - For listed whatif items

6 misc

1. GlideConfiguration - GlideModule implementation that sets the decoder format.
2. HackyDrawerLayout - Provides a hacky fix for an issue with the standard DrawerLayout
3. HackyViewPager - Fixes an issue relating to ScaleGestureDetector messing up touch events.
4. OnSwipeTouchListener - Listens for flinging swipe events
5. ScrollAwareFABBehavior - Behavior modifying a FAB so that it scrolls with the child?

7 Notifications

1. ComicListener - Schedules alarms to download the latest comics
2. ComicNotifier - Notifies the user of new comic/whatif article availability
3. ConnectivityReceiver - Receives information about network connectivity and wakes attempts to download comics if needed & connectivity is available

8 Services

1. ArticleDownloadService - Downloads and stores articles in the background, as a service
2. ComicDownloadService - Downloads and stores comics in the background, as a service

9 utils

1. Article - Provides utility methods for parsing whatif articles into serializable Article objects
2. Comic - Provides utility methods for parsing whatif articles into serializable Comic objects
3. JsonParser - Returns a json object from a URL
4. OfflineComic - Loads comics from offline as bitmap objects
5. PrefHelper - Hides lots of duplicate code related to preferences
6. ThemePref - Same as above but specifically for themes

10 Widget

1. WidgetLatestProvider - Provides data to a widget that displays the latest comic
2. WidgetRandomProvider - Provides data to a widget that displays a random comic