

Android Fundamentals Project Self-Evaluation

Instructions: Once you've completed your Final Project, please respond to the questions below. This is a chance for you to briefly explain to the grader your thought-process during development. Once you are done, include this with the source code and accompanying files you are submitting. Then, give yourself a pat on the back for making a great app!

Questions about Required Components

Permissions

Please elaborate on why you chose the permissions in your app.

The permissions my app needs are in two categories below :-

```
<!-- Permissions required for HashTrace to access the network and perform network
access -->
<uses-permission android:name="android.permission.INTERNET" /> - application needs to
initiate network communication by opening network sockets
<uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" /> -receive
information about the network
<uses-permission android:name="android.permission.ACCESS_WIFI_STATE" /> - for users who
will use my app in a proxy network environment, I need to check their wifi state

<!-- Permissions required by the sync adapter -->
<uses-permission android:name="android.permission.READ_SYNC_SETTINGS" />    - will
allowus to read the sync settings
<uses-permission android:name="android.permission.WRITE_SYNC_SETTINGS" />    - will allow
application to write synchronisation settings
<uses-permission android:name="android.permission.AUTHENTICATE_ACCOUNTS" /> - Will allow
my application to act as an AccountAuthenticator for the AccountManager
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE"/> - Allows
application to write to external storage
```

Content Provider

What is the name of your Content Provider, and how is it backed? (For example, Sunshine's Content Provider is named WeatherProvider backed by an SQLite database, with two tables: weather and location.)

The name of my ContentProvider is TweetHashTracerContentProvider and it is backed by an SQLite database with three tables -:

- Hashtag - for storing hashtag string
- tweet and - for storing the tweets
- tweetfavour - for storing favourited yweets over time

What backend does it talk to? (For example, Sunshine talks to the OpenWeatherMap API.)

My app communicates with twitter API and depends on it for retrieval of tweets.

If your app uses a SyncAdapter, what is it called? What mechanism is used to actually talk over the network? (For example, Sunshine uses HttpURLConnection to talk to the network, but your app may use a third-party library to do the talking.)

Yes, my app uses a SyncAdapter called TweetHashTracerSyncAdapter. This app uses the twitter4j library to access the twitter API through HttpURLConnection .

What loaders/adapters are used?

App has a

- TweetList Adapter which extends a CursorAdapter for building the tweet list view.
- I also use a SwipePagerAdapter which extends a SmartFragmentStatePagerAdapter for building my fragments.
- The TweetListFragment implements LoaderCallbacks providing it with a loader to retrieve database data.

User/App State

Please elaborate on how/where your app correctly preserves and restores user or app state. (See rubric for examples on this question)

The app correctly preserves and restores user or app state. For example :-

- Activity state is preserved even if a rotation or change in orientation occurs, this is because it uses loaders which are not tied entirely to activity's state.
- Selected item on a list view is maintained even upon a rotation of screen or change in orientation
- User text input is also preserved for instance when entering the #HashTag value, the value entered persists even on rotation.
- When the app is resumed after the device wakes from sleep (locked) state, the app returns the user to the exact state in which it was last used.

- When the app is relaunched from Home or All Apps, the app restores the app state as closely as possible to the previous state.

Questions about Optional Components

Answer the questions that are applicable to your final project

Notifications

Please elaborate on how/where you implemented Notifications in your app:

Notifications for new tweets is implemented, but is limited to tweets below a certain date span from the current time, hence notifications will only show if such tweets exist. Tweets are batched and come as one notification.

ShareActionProvider

Please elaborate on how/where you implemented ShareActionProvider:

Users can be able to share tweets on long pressing on a tweet listitem

Broadcast Events

Please elaborate on how/where you implemented Broadcast Events:

Custom Views

Please elaborate on how/where you implemented Custom Views:

I have used custom views such as the :-

- PullUpToRefreshListView for the TweetListFragment . It is a special ListView for a refresh functionality.
- LineChartView for the GraphFragment to display the graphs, it is part of the HelloCharts library .

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