News App Stage 1

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Android Basics Nanodegree

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Overview

1. JSON

2. HTTP

3. Threads
   - AsyncTask
   - Loaders

JSON

Example (me)

```
{
"name":"Dimitris"
"course":{"Udacity":"ABND"}
}
```

Android - JSON Parser

- Array([])
- Objects({})
- Key
- Value[Tutorials Point, 2018]

Architecture

- newsfeed_activity.xml
- NewsfeedActivity.java
- QueryUtils.java
- Newsfeed.java
- newsfeed_list_item.xml
- NewsfeedAdapter.java

Request-Response

- Form HTTP request
- Send request
- Receive response
- Update UI

makeHttpRequest

HttpURLConnection
urlConnection = (HttpURLConnection) url.openConnection();

connect
urlConnection.connect();

getResponseCode
if (urlConnection.getResponseCode() == 200)

InputStream
inputStream = urlConnection.getInputStream();

AsyncTask

- Android UI Main Thread
- Concurrent Processing in Android[Programmer Guru, 2018]

Loader in foreground

LoaderManager

loaderManager.initLoader(NEWSFEED_LOADER_ID, null, this);

LoaderManager.LoaderCallbacks

public class NewsfeedActivity extends AppCompatActivity implements LoaderCallbacks<List<Newsfeed>>

onCreateLoader()

return new NewsfeedLoader(this, USGS_REQUEST_URL);

onLoadFinished()

mAdapter.addAll(newsfeeds);

onLoaderReset()

mAdapter.clear();

Loader in background

AsyncTaskLoader

public class NewsfeedLoader extends
AsyncTaskLoader<List<Newsfeed>>

loadInBackground()

List<Newsfeed> newsfeeds = QueryUtils.fetchNewsfeedData(mUrl);

References

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Questions?