



New Releases Notifier

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Growth Session #21 - January 24-25 2019

- Currently, we are setting up and using a new releases notifier service from <https://newreleases.io> ⇒ you can take a look at [#new-releases-activities](#) Slack channel for more information about this. It works well **BUT** it does not have support for the Google dependency repository for now.
- Build a tool to notify new releases of Google libraries, especially Android components.

Goals

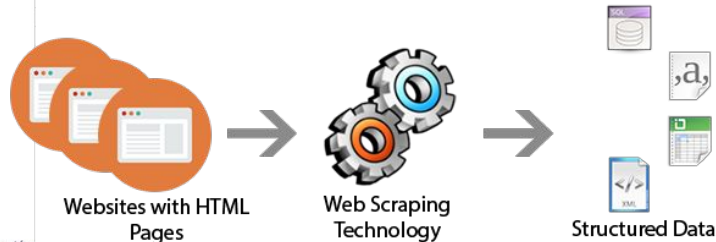
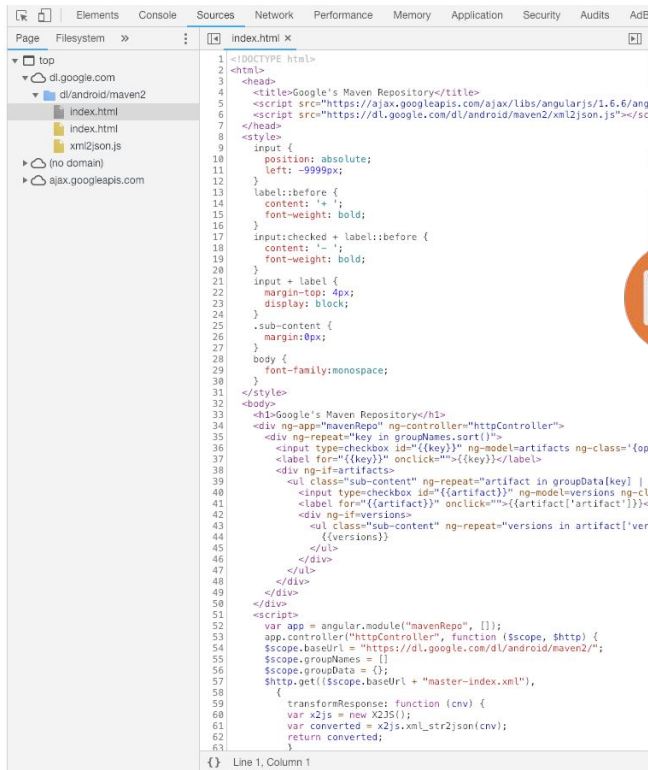
- ✓ Crawl new version of libraries from the Google Maven server
<https://dl.google.com/dl/android/maven2/index.html>
- ✗ Create a cron job for the crawling tool
- ✗ Build Slack plugin to send new release notifications

Insight into Google dependency repository

Link: <https://dl.google.com/dl/android/maven2/index.html>

Google's Maven Repository

- + android.arch.core
- + android.arch.lifecycle
- + android.arch.navigation
- + android.arch.paging
- + android.arch.persistence
- + android.arch.persistence.room
- + android.arch.work
- + androidx.activity
- + androidx.annotation
- + androidx.appcompat
- + androidx.arch.core
- + androidx.asynclayoutinflater
- + androidx.biometric
- + androidx.browser
- + androidx.car
- + androidx.cardview
- + androidx.collection
- + androidx.concurrent
- + androidx.constraintlayout
- + androidx.contentpager
- + androidx.coordinatorlayout
- + androidx.core
- + androidx.cursoradapter
- + androidx.customview
- + androidx.databinding
- + androidx.documentfile
- + androidx.drawerlayout
- + androidx.dynamicanimation
- + androidx.emoji
- + androidx.exifinterface
- + androidx.fragment
- + androidx.gridlayout
- + androidx.healthwriter
- + androidx.interpolator
- + androidx.leanback
- + androidx.legacy
- + androidx.lifecycle
- + androidx.loader
- + androidx.localbroadcastmanager
- + androidx.media
- + androidx.media2
- + androidx.mediarouter
- + androidx.multidex
- + androidx.paging



Insight into Google dependency repository

<https://dl.google.com/dl/android/maven2/master-index.xml>

```
<metadata>
  <com.android.support.constraint/>
  <com.android.databinding/>
  <com.android.support/>
  <com.android.support.test/>
  <com.android.support.test.janktesthelper/>
  <com.android.support.test.uiautomator/>
  <com.android.support.test.espresso/>
  <android.arch.persistence.room/>
  <android.arch.lifecycle/>
  <android.arch.core/>
  <com.google.android.instantapps/>
  <com.google.android.instantapps.thirdpartycompat/>
  <com.android.java.tools.build/>
  <com.android.tools/>
  <com.android.tools.layoutlib/>
  <com.android.tools.ddms/>
  ...
</metadata>
```

Insight into Google dependency repository

<https://dl.google.com/dl/android/maven2/com/android/support/constraint/group-index.xml>

```
<com.android.support.constraint>
  <constraint-layout-solver
    versions="1.0.2,1.1.0-beta1,1.1.0-beta2,1.1.0-beta3,1.1.0-beta4,1.1.0-beta5,1.1.0-beta6,1.1.0,1.1.1,1.1.
    2,1.1.3,2.0.0-alpha1,2.0.0-alpha2,2.0.0-alpha3"/>
  <constraint-layout
    versions="1.0.2,1.1.0-beta1,1.1.0-beta2,1.1.0-beta3,1.1.0-beta4,1.1.0-beta5,1.1.0-beta6,1.1.0,1.1.1,1.1.
    2,1.1.3,2.0.0-alpha1,2.0.0-alpha2,2.0.0-alpha3"/>
</com.android.support.constraint>
```

Achievement and Progress

- Setup Node.JS web application using the [Express](#) framework
- Setup Postgres DB using [sequelize](#)
- Create data scraping flow for master and group index xml. Check for new version for each dependency
- Deploy to Heroku, using [Heroku Postgres](#) for DB hosting
- Link: <https://new-releases-notifier.herokuapp.com/scrape>

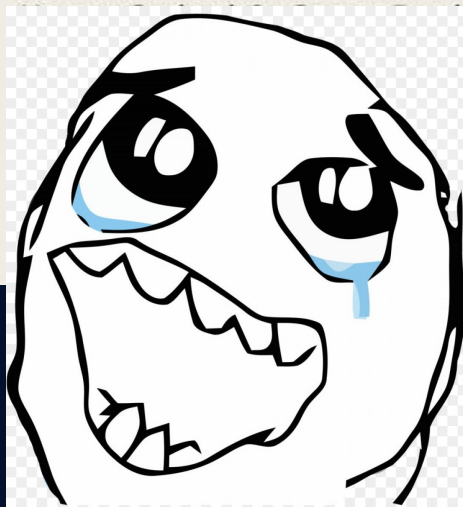
Conclusion

Data scraping	Data Crawling
Involves extracting data from various sources including web	Refers to downloading pages from the web
Can be done at any scale	Mostly done at a large scale
Deduplication is not necessarily a part	Deduplication is an essential part
Needs crawl agent and parser	Needs only crawl agent

Next Steps

- ✕ Create a cron job for the crawling tool
- ✕ Build Slack plugin to send new release notifications

LET THE COMPUTER
DO THE WORK



Thanks!

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