

Google In Context

Gmail Contextual Gadgets for Moodle
Powered by
App Engine

Straight into the Demo


Demo

Google Apps Market Place – Vendor Profile

Google Apps Marketplace

Marketplaces ▾



PiersHarding.Com

 RD2
Kerikeri
0295
New Zealand
[Vendor website](#)

[Developer resources](#)

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	Moodle Tracker Email Gadget Moodle Tracker Email Gadget ★★★★★ 0 review View full overview » View OAuth Consumer Key »	Listing status ◆ not published ◆ not submitted	<input type="button" value="Edit"/> <input type="button" value="Submit for approval"/>
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Marketplaces

Please review (and test) your listing.

Your listing will appear as shown below in the Marketplace. You may now test running your application on a domain by clicking "Add it now" button below. When you are ready, you may submit your listing for approval. (Google charges a one-time fee of **\$100** for submitting your first listing.)

Edit this listing

I am ready! Submit this listing for approval

[Google Apps](#) > [Productivity](#)



Moodle Tracker Email Gadget

Moodle Tracker Email Gadget

by [PiersHarding.Com](#)

Moodle Tracker Email Gadget

★★★★★

Add it now

[Learn more](#)

Pricing Details
Free

Specifications

Data access requirements

- Mail - Subject Line

Google APIs

- Google Gadgets API
- This information is not public

About the Vendor

[PiersHarding.Com](#)

RD2

Kerikeri

0295

New Zealand

[Vendor website](#)

Recent Customer Reviews

This product has no reviews yet.

no reviews

Attach to Gapps Domain


Marketplaces ▾

Please review (and test) your listing.

Your listing will appear as shown below in the Marketplace. You may now test running your application on a domain by clicking "Add it now" button below. When you are ready, you may submit your listing for approval. (Google charges a one-time fee of **\$100** for submitting your first listing.)

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Moodle Tracker Email Gadget
by [PiersHarding.Com](#)

Moodle Tracker Email Gadget

★★★★★

Enter your Google Apps domain:
www.
[Cancel](#) [Learn more](#)

Pricing Details
Free

Add Now – Agree terms

Dashboard | Organization & users | Groups | Domain settings | Advanced tools | Support

Service settings -

You have requested that the ' Gmail Moodle Tracke... ' service be added to your domain

Agree to terms of service

1 **Agree to terms** 2 Grant data access 3 Enable the app

⚠ Please be careful when adding non-Google services to your domain, and make certain you know and trust the developer or originator of the service. Google cannot be held liable for any bad things that might happen as a result of adding this service to your domain.

Please agree to the terms and conditions to continue

Free as in Free Beer

[Printable Version](#)

By clicking "I Agree. Continue." you are agreeing to the vendor's terms and conditions shown or linked above and the Marketplace terms of service ([shown here](#)).

App Overview

Gmail Moodle Tracker details
[View in the marketplace](#)

Simple Moodle Tracker Info application for testing Gmail contextual gadgets

Includes:

- Single Sign-On through OpenID
- Moodle Tracker Numbers in Subject
- Moodle Tracker Info contextual gadget

Add Now – Grant Access

Dashboard | Organization & users | Groups | Domain settings | Advanced tools | Support

Service settings ▾

You have requested that the ' Gmail Moodle Tracke... ' service be added to your domain

Grant data access

1 Agree to terms **2 Grant data access** 3 Enable the app

In order to work properly, this app needs to access your domain's data. It will be able to access the data exposed by Google APIs, which may include reading, writing, or deleting the data described below.

⚠ Mail - Subject Line
This application looks at the subject of each email looking for Moodle Tracker numbers of the format MDL-9....

Only grant data access to applications that you trust. Most of the apps in the Google Apps Marketplace were developed by companies other than Google. Some of these apps may access your data using gadgets, which may increase your risk for phishing attacks, so evaluate apps carefully. You should only install an app if you trust the app's creator, as you are solely responsible for any compromise or loss of data that may result from using that application. [Learn more](#) about how to evaluate applications and the risks.

App Overview

Gmail Moodle Tracker details
[View in the marketplace](#)

Simple Moodle Tracker Info application for testing Gmail contextual gadgets

Includes:

- Single Sign-On through OpenID
- Moodle Tracker Numbers in Subject
- Moodle Tracker Info contextual gadget

Grant data access

Cancel

Add Now – Enable Gadget

Dashboard | Organization & users | Groups | Domain settings | Advanced tools | Support

Service settings -

You have requested that the ' Gmail Moodle Tracke... ' service be added to your domain

Enable the app

1 Agree to terms 2 Grant data access **3 Enable the app**

You have successfully added the ' Gmail Moodle Tracke... ' app
You can make it available to your users right away by enabling it now, or if you're not ready to make it available, you can enable it later.

App Overview

Gmail Moodle Tracker details
[View in the marketplace](#)

Simple Moodle Tracker Info application for testing Gmail contextual gadgets

Includes:

- Single Sign-On through OpenID
- Moodle Tracker Numbers in Subject
- Moodle Tracker Info contextual gadget

Add Now – All done

[Dashboard](#) | [Organization & users](#) | [Groups](#) | [Domain settings](#) | [Advanced tools](#) | [Support](#)

Service settings ▾

Gmail Moodle Tracker details settings

App status ✓ **Active**

✓ **Licensed**

For pricing and other information, please see the developer's listing.

✓ **Enabled**

You can temporarily disable this application, preventing users from accessing it without losing any data. [Learn more](#)

[Disable Gmail Moodle Tracker details](#)

Data access ✓ **Granted**

This application is allowed to impersonate the users in your domain and access their data via the following APIs: [Learn more](#)

Mail - Subject Line

This application looks at the subject of each email looking for Moodle Tracker numbers of the format MDL-9...

[Revoke data access](#)

Single Sign On via OpenID

This app can obtain the OpenID identity of users in your domain automatically when they visit websites that belong to the following OpenID realms. The identity information can include the email addresses and names of users and allows the app to provide a Single Sign On experience. [Learn more](#)

<http://moodletracker.appspot.com>

Additional settings [Additional configuration](#)

Support for this app Get online support : <http://moodletracker.appspot.com/moodle-tracker-info/support>

Demo of the Gadget

The screenshot shows a Gmail interface with a browser window. The address bar shows the URL: <https://mail.google.com/mail/?shva=1#inbox/12a4b8d2d1f84109>. The browser tabs include "tracker MDL-22951 - ...", "Seesmic", and "Kerikeri Weather - N...". The Gmail interface shows the "Compose Mail" button, the "Inbox" list, and the "Google apps" search bar. The main content area displays an email from "Piers Harding" with the subject "tracker MDL-22951". The email body contains a "Moodle Tracker - Moodle Tracker Details" gadget. The gadget has tabs for "overview", "summary", "last comment", and "history". The "summary" tab is selected, showing the following details:

- Type: Bug
- Status: Resolved
- Assignee: Piers Harding
- Priority: Major
- Version: 2.0.1
- Component: SCORM
- Votes: 1

Below the details, there are "Reply" and "Forward" buttons and a text input field. The right sidebar shows a "Chat" window with a search bar and a list of contacts including "Piers Harding", "dan.marsden", "francois", "Olivier", "DJ", "cloud", "Anastazja Harding", "Kinga Harding", "marysia.harding", and "oskar.piers.harding".

Demo - continued

If you think it was sent incorrectly contact one of the administrators: <http://tracker.moodle.org/secure/Administrators.jspa>

For more information on JIRA, see: <http://www.atlassian.com/software/jira>

Moodle Tracker - Moodle Tracker Details

[overview](#) [summary](#) [last comment](#) [history](#)

[MDL-24273] undefined functions in scorm

Type: Bug
Status: Open
Assignee: Dan Marsden
Priority: Minor
Version: 2.0
Component: SCORM
Votes: 0

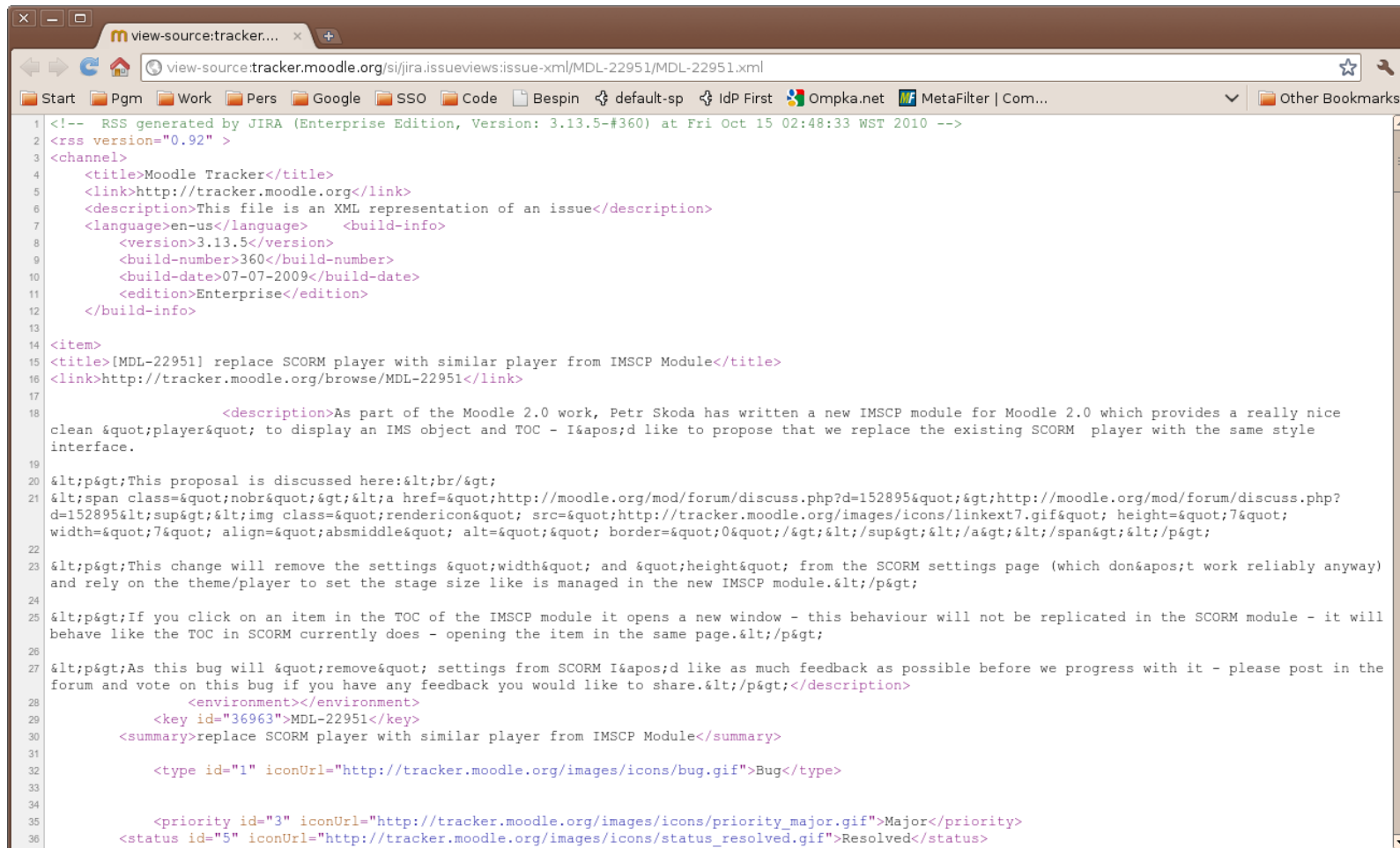
[← Reply](#) [→ Forward](#)

The Gadget

- Take one Moodle Tracker (Jira) RSS Feed
- Create a simple REST based RSS -> JSON transformation with App Engine
- Augment Gmail with Contextual Gadget for Tracker posts

Moodle Tracker

- RSS feed looks like this:



```
1 <!-- RSS generated by JIRA (Enterprise Edition, Version: 3.13.5-#360) at Fri Oct 15 02:48:33 WST 2010 -->
2 <rss version="0.92" >
3 <channel>
4   <title>Moodle Tracker</title>
5   <link>http://tracker.moodle.org</link>
6   <description>This file is an XML representation of an issue</description>
7   <language>en-us</language> <build-info>
8     <version>3.13.5</version>
9     <build-number>360</build-number>
10    <build-date>07-07-2009</build-date>
11    <edition>Enterprise</edition>
12  </build-info>
13
14 <item>
15 <title>[MDL-22951] replace SCORM player with similar player from IMSCP Module</title>
16 <link>http://tracker.moodle.org/browse/MDL-22951</link>
17
18   <description>As part of the Moodle 2.0 work, Petr Skoda has written a new IMSCP module for Moodle 2.0 which provides a really nice
19 clean &quot;player&quot; to display an IMS object and TOC - I&apos;d like to propose that we replace the existing SCORM player with the same style
20 interface.
21 &lt;p&gt;This proposal is discussed here:&lt;br&gt;
22 &lt;span class=&quot;nobr&quot;&gt;&lt;a href=&quot;http://moodle.org/mod/forum/discuss.php?d=152895&quot;&gt;http://moodle.org/mod/forum/discuss.php?
23 d=152895&lt;sup&gt;&lt;img class=&quot;rendericon&quot; src=&quot;http://tracker.moodle.org/images/icons/linkext7.gif&quot; height=&quot;7&quot;
24 width=&quot;7&quot; align=&quot;absmiddle&quot; alt=&quot;&quot; border=&quot;0&quot; /&gt;&lt;/sup&gt;&lt;a&gt;&lt;/span&gt;&lt;/p&gt;
25 &lt;p&gt;This change will remove the settings &quot;width&quot; and &quot;height&quot; from the SCORM settings page (which don&apos;t work reliably anyway)
26 and rely on the theme/player to set the stage size like is managed in the new IMSCP module.&lt;/p&gt;
27 &lt;p&gt;If you click on an item in the TOC of the IMSCP module it opens a new window - this behaviour will not be replicated in the SCORM module - it will
28 behave like the TOC in SCORM currently does - opening the item in the same page.&lt;/p&gt;
29 &lt;p&gt;As this bug will &quot;remove&quot; settings from SCORM I&apos;d like as much feedback as possible before we progress with it - please post in the
30 forum and vote on this bug if you have any feedback you would like to share.&lt;/p&gt;</description>
31 <environment></environment>
32 <key id="36963">MDL-22951</key>
33 <summary>replace SCORM player with similar player from IMSCP Module</summary>
34
35 <type id="1" iconUrl="http://tracker.moodle.org/images/icons/bug.gif">Bug</type>
36
37 <priority id="3" iconUrl="http://tracker.moodle.org/images/icons/priority_major.gif">Major</priority>
38 <status id="5" iconUrl="http://tracker.moodle.org/images/icons/status_resolved.gif">Resolved</status>
```

Anatomy of A Gadget

- Manifest
 - Marketplace information
 - What access it needs/what you should trust it with
 - Where it is
- Gadget definition
 - Positioning/behaviour
 - Interface with Google API
 - Gadget code

Manifest

```
1 <?xml version="1.0" encoding="UTF-8" ?>
2 <ApplicationManifest xmlns="http://schemas.google.com/ApplicationManifest/2009">
3
4 <!-- Support info to show in the marketplace & control panel -->
5 <Support>
6 <!-- URL for application configuration, accessed from the app settings page in the control panel -->
7 <Link rel="manage" href="http://moodletracker.appspot.com/moodle-tracker-info/admin?domain=${DOMAIN_NAME}" />
8
9 <!-- URL explaining how customers get support. -->
10 <Link rel="support" href="http://moodletracker.appspot.com/moodle-tracker-info/support" />
11
12 <!-- URL that is displayed to admins during the deletion process,
13 to specify policies such as data retention, how to claim accounts, etc. -->
14 <Link rel="deletion-policy" href="http://moodletracker.appspot.com/moodle-tracker-info/deletion-policy" />
15 </Support>
16
17 <!-- Name and description pulled from message bundles -->
18 <Name>Gmail Moodle Tracker details</Name>
19 <Description>Simple Moodle Tracker Info application for demonstrating Gmail contextual gadgets</Description>
20
21 <!-- Declare our OpenID realm so our app is white listed -->
22 <Extension id="realm" type="openIdRealm">
23 <Url>http://moodletracker.appspot.com</Url>
24 </Extension>
25
26 <!-- EXTRACTOR -->
27 <Extension id="SubjectExtractor" type="contextExtractor">
28 <Name>Moodle Tracker Numbers in Subject</Name>
29 <Url>google.com:SubjectExtractor</Url>
30 <Param name="subject" value=".*MDL\-[0-9]+.*" />
31 <Triggers ref="MoodleTrackerInfoGadget" />
32 <Scope ref="emailSubject" />
33 <Container name="mail" />
34 </Extension>
35
36 <!-- GADGET -->
37 <Extension id="MoodleTrackerInfoGadget" type="gadget">
38 <Name>Moodle Tracker Info contextual gadget</Name>
39 <Url>http://moodletracker.appspot.com/gadgets/moodle-tracker-info.gadget.xml</Url>
40 <Container name="mail" />
41 </Extension>
42
43 <!-- SCOPE -->
44 <Scope id="emailSubject">
45 <Url>tag:google.com,2010:auth/contextual/extractor/SUBJECT</Url>
46 <Reason>This application looks at the subject of each email looking for Moodle Tracker numbers of the format MDL-9....</Reason>
47 </Scope>
48
49 </ApplicationManifest>
```

Gadget definition

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <Module>
3   <ModulePrefs title="Moodle Tracker"
4     description="Moodle Tracker Details"
5     height="75"
6     author="Piers Harding"
7     author_email="piers@ompka.net"
8     author_location="Virtually here">
9
10  <!-- Declare feature dependencies. -->
11
12  <!-- This one is not specific to Gmail contextual gadgets. -->
13  <Require feature="dynamic-height"/>
14
15  <Require feature="tabs"/>
16
17  <Require feature="setprefs"/>
18
19  <UserPref name="selectedTab" datatype="hidden"/>
20
21  <!-- The next feature, Caja, is optional, and is supported for
22  use only within test domains. Uncomment the tag only for
23  non-production gadgets. -->
24  <!-- <Require feature="caja"/> -->
25
26  <!-- The next feature, google.contentmatch, is required for all
27  Gmail contextual gadgets.
28  <Param> - specify one or more comma-separated extractor IDs in
29  a param named "extractors". This line is overridden by the extractor ID
30  in the manifest, but is still expected to be present. -->
31  <Require feature="google.contentmatch">
32    <Param name="extractors">
33      google.com:SubjectExtractor
34    </Param>
35  </Require>
36 </ModulePrefs>
37
38 <!-- Define the content type and display location. The settings
39 "html" and "card" are required for all Gmail contextual gadgets. -->
40 <Content type="html" view="card">
41   <![CDATA[
42     <script type='text/javascript' src='http://ajax.googleapis.com/ajax/libs/jquery/1.4.2/jquery.min.js'></script>
43     <script type="text/javascript">
44
45       function initMoodleTracker() {
46         // Expect subject as first element keyed by 'subject'
47         matches = google.contentmatch.getContentMatches();
```

Gadget Code

- See gadget code ...

App Engine Transformer

- So what's this got to do with Python?
- Python does the heavy lifting of filtering and transforming the data required
- For this – we use Google AppEngine

App Engine

- Google supplied application development infrastructure
- Dead easy
- Highly Scalable
- If there is such a thing as Cloud Computing, then this is it
- Supports Java(spit!) and Python(Yay!) - can even use Django
- <http://code.google.com/appengine/docs/python/overview.html>



App Engine Dashboard

Google app engine

piers@ompka.net | [My Account](#) | [Help](#) | [Sign out](#)

moodletracker ▾ 2 ▾

« [My Applications](#)

Main

Dashboard

[Quota Details](#)

[Logs](#)

[Cron Jobs](#)

[Task Queues](#)

[Blacklist](#)

Data

[Datastore Indexes](#)

[Datastore Viewer](#)

[Datastore Statistics](#)

[Blob Viewer](#)

Administration

[Application Settings](#)

[Permissions](#)

[Versions](#)

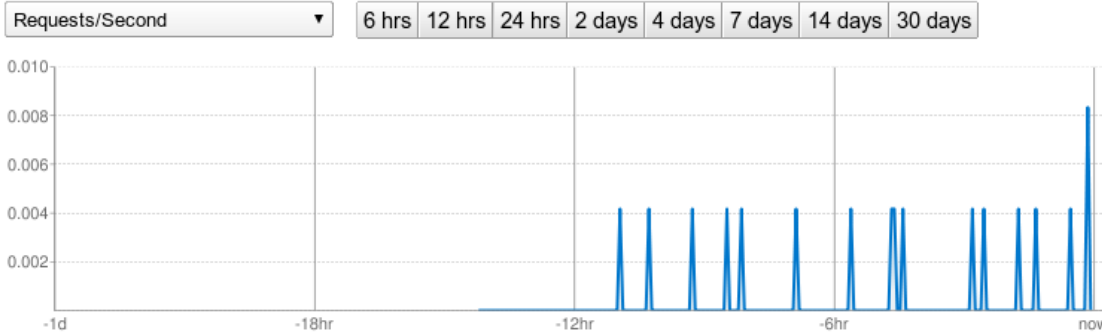
[Admin Logs](#)

Billing

[Billing Settings](#)

[Billing History](#)

Charts ?



Billing Status: Free - [Settings](#)

Quotas reset every 24 hours. Next reset: 11 hrs ?

Resource	Usage
CPU Time	0% 0.01 of 6.50 CPU hours
Outgoing Bandwidth	0% 0.00 of 1.00 GBytes
Incoming Bandwidth	0% 0.00 of 1.00 GBytes
Total Stored Data	0% 0.00 of 1.00 GBytes
Recipients Emailed	0% 0 of 2,000

Current Load ?

URI	Requests last 13 hrs	Avg CPU (API) last hr	% CPU last 13 hrs
/	1	0 (0)	0%

Errors ?

URI	Count last 13 hrs	% Errors last 13 hrs
-----	----------------------	-------------------------

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AppEngine Applications

Google app engine

piers@ompka.net | [My Account](#) | [Help](#) | [Sign out](#)

My Applications

◀ Prev 20 **1-2** Next 20 ▶

Application	Title	Current Version
moodletracker	Moodle Tracker Gadget	2 
nucleushive	Application Cluster	1 

Create an Application

You have 8 applications remaining.

◀ Prev 20 **1-2** Next 20 ▶

What you need

- Your own AppEngine developer account
 - sign up at <https://appengine.google.com/>
- Create an application
 - these live at *.appspot.com
- Install the Python runtime environment
 - <http://code.google.com/appengine/downloads.html>

The app.yaml file

```
app.yaml x
1 application: moodletracker
2 version: 2
3 runtime: python
4 api_version: 1
5
6 handlers:
7 - url: /manifests
8   static_dir: manifests
9   expiration: 1m
10
11 - url: /gadgets
12   static_dir: gadgets
13   expiration: 1m
14
15 - url: /css
16   static_dir: css
17
18 - url: /images
19   static_dir: static/images
20
21 - url: /favicon.ico
22   static_files: static/images/favicon.ico
23   upload: static/images/favicon.ico
24
25 - url: /test_gadget.html
26   static_files: static/test_gadget.html
27   upload: static/test_gadget.html
28
29 - url: /tracker/*
30   script: tracker.py
31
32 - url: .*
33   script: main.py
```

Application Structure

```
moodletracker-contextual/  
    app.yaml  
    tracker.py  
    main.py  
    feedparser.py  
  
    manifests/  
        moodle-tracker-info.manifest.xml  
  
    gadgets/  
        moodle-tracker-info.gadget.xml  
  
    static/  
        test_gadget.html  
        images/  
            tabnotsel_r.gif  
            tabnotsel_l.gif  
            tabsel_r.gif  
            favicon.ico  
            tabsel_l.gif  
  
    css/  
        moodle-tracker-info.css
```

- Manifest -> <http://moodletracker.appspot.com/manifests/moodle-tracker-info.manifest.xml>
- Gadget -> <http://moodletracker.appspot.com/gadgets/moodle-tracker-info.gadget.xml>
- Transformer -> <http://moodletracker.appspot.com/tracker/MDL-22951>

Tracker Handler

```
1 from google.appengine.ext import webapp
2 from google.appengine.ext.webapp import util
3 from google.appengine.api import urlfetch
4 import feedparser
5 from django.utils import simplejson
6
7 # an issue URL looks like http://tracker.moodle.org/si/jira.issueviews:issue-xml/MDL-22951/MDL-22951.xml
8 MOODLE_TRACKER = 'http://tracker.moodle.org/si/jira.issueviews:issue-xml/'
9
10 class TrackerFailHandler(webapp.RequestHandler):
11     def get(self):
12         self.response.out.write("""
13         <html><body>
14         <h1>moodletracker - invalid format</h1>
15         </body></html>
16         """)
17         self.response.set_status(404, 'moodletracker - invalid format')
18         return
19
20 class TrackerHandler(webapp.RequestHandler):
21     def get(self, tracker_id):
22         url = MOODLE_TRACKER + tracker_id + '/' + tracker_id + '.xml'
23         result = urlfetch.fetch(url)
24         if result.status_code != 200:
25             self.response.set_status(404, 'moodletracker - tracker not found')
26             return
27
28         dom = feedparser.parse(result.content)
29         data = {}
30         if dom != None:
31             if dom.has_key('items'):
32                 d = dom['items'][0]
33                 for i in ('title', 'summary', 'link', 'status', 'version', 'component', 'key',
34                         'created', 'type', 'votes', 'assignee', 'comment', 'updated', 'resolution', 'priority', 'reporter'):
35                     data[i] = d[i].replace('"', '&quot;').replace("\n", '')
36
37         els = []
38         for i in data:
39             els.append( '"' + i + "':[" + data[i] + "]" )
40         txt = ','.join(els);
41         self.response.out.write('{'+txt+'}')
42         self.response.headers["Content-Type"] = 'application/json; charset=utf-8'
43         self.response.headers["Access-Control-Allow-Origin"] = '*'
44         self.response.set_status(200)
45         return
46
47 def main():
48     application = webapp.WSGIApplication([('/tracker/(MDL\-\d+?)', TrackerHandler),
49                                         ('/tracker.*?', TrackerFailHandler)], debug=True)
50     util.run_wsgi_app(application)
51
52 if __name__ == '__main__':
53     main()
```

References

- <https://www.google.com/enterprise/marketplace/>
- <https://appengine.google.com/>
- <http://code.google.com/appengine/docs/python/overview.html>
- <http://github.com/piersharding/moodletracker-contextual>
- <http://tracker.moodle.org>