

CouchDB

Options

Ways to use the software:

CouchBase Server (fork of CouchDB) <http://www.couchbase.com>

Cloudant (cloud-hosted fork of CouchDB) <https://cloudant.com>

- see good tutorials under 'For Developers'

Apache CouchDB <http://couchdb.apache.org>

- <http://wiki.apache.org/couchdb/Introduction>

- <http://wiki.apache.org/couchdb/Technical%20Overview>

- <http://wiki.apache.org/couchdb/Basics>

To begin with set it all up on your individual machine for development

Worry later about a server for use by the wider world

These instructions

These instructions worked on two Macs with fresh installs of Mountain Lion

Repository and preparatory work

Git-related

Learn how Git version control works

Make an account on GitHub <https://github.com>

- connect to the Persephone repository <https://github.com/nepahwin/persephone>

GitHub clients are available from <http://git-scm.com>

Download one <http://git-scm.com/downloads/guis>

- I've used 'GitHub for Mac' in the past
- But now I am using SourceTree <http://www.sourcetreeapp.com> (seems pretty good)
 - Available from website or App Store
 - Connect SourceTree to your GitHub account
 - Clone Persephone to your computer via the 'Hosted Repositories' icon
(calling it persephone)

Many ways to do this on different systems and well-documented online

XCode (Mac only)

Install XCode

Install command line tools

- Open Xcode
- Go to Preferences... [Command + ,]
- Select and download 'Command lines Tools' in the Download tab

Installing CouchDB

Read about CouchDB

Here is a good online book: <http://guide.couchdb.org>

Mac installation

Download dmg from <http://couchdb.apache.org>

- Put it in Applications folder
- Double click on binary it to make it run in the background on port 5984
- View Futon user interface in web browser at http://127.0.0.1:5984/_utils/

Installing CouchDB-Lucene

This code is on GitHub too

- Connect it to your account
- Clone it to your computer using your git client
(calling it couchdb-lucene)
- Note that there are (obscure) installation instructions for couchdb-lucene on GitHub

Go into the couchdb-lucene directory and run mvn

Unzip the zipped file in the target directory

Do 'bin/run &' to start the couchdb-lucene server

Edit the CouchDB config file to tell it about couchdb-lucene:

`/Applications/CouchDB\ Server.app/Contents/Resources/couchdbx-core/etc/couchdb/local.ini`

Add:

`[couchdb]`

`os_process_timeout=60000 ; increase the timeout from 5 seconds.`

`[external]`

`fti=/usr/bin/python /Users/jloach/couchdb-lucene/couchdb-external-hook.py`

`[httpd_db_handlers]`

`_fti = {couch_httpd_external, handle_external_req, <<"fti">>}`

Installing CouchApp

CouchApp website: <http://couchapp.org/page/index>

Example applications under 'Javascript Application Programming' and tutorials

Installation instructions: <http://couchapp.org/page/installing>

```
curl -O http://python-distribute.org/distribute_setup.py
```

```
sudo python distribute_setup.py
```

```
sudo easy_install pip
```

```
sudo pip install couchapp
```

```
sudo pip install --upgrade couchapp
```

Installing Persephone

Getting the code to run

Make a CouchDB database called mj_assays

Installing Persephone means 'pushing' the contents of the cloned repository to a CouchDB database

```
couchapp generate database
```

```
cp -rf persephone/html/* database/_attachments/
```

```
couchapp push database http://127.0.0.1:5984/assays
```

View the web interface at http://127.0.0.1:5984/assays/_design/database/index.html

Add the following design document to the database to allow search:

```
{
  "_id": "_design/test",
  "views": {
    "date": {
      "map": "function(doc) { if (doc.date&&doc.detector) { emit(doc.date, doc.detector);} }\n"
```

```
    }  
  },  
  "fulltext": {  
    "search": {  
      "index": "function(doc) { var ret = new Document(); function idx(obj) { for (var key in obj) {  
switch (typeof obj[key]) { case 'object': idx(obj[key]); break; case 'function': break; default:  
ret.add(obj[key]); break; }}}; idx(doc); return ret; }\n"  
    }  
  }  
}
```
