The following exercises are related to the use of the software CouchDB [2]. You can download and use CouchDB on your own devices for free. However, it does require administrator privileges. On the lab machines we will therefore have to use PouchDB Server, which is a CouchDB clone [3]. The easiest way to get PouchDB Server running on the lab PCs is to download the zip file from the Resources section of the Moodle page. Unzip the contents into the folder u:\node, and run pouchdb-server.bat. Make sure you don't already have such a folder. If you do, you'll have to rename it first.

- 1. Run the database, and test your ability to perform a HTTP request on it. Do this by performing a GET request on it for the root resource.
- 2. Create a new database called emails.

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- 3. Create a file called email1.json containing JSON representing an email. (You can make up your own properties and values.) Use curl to add email1.json as a document to the emails database.
- 4. Add a second, different document to the database. (Again make up your own properties and values.)
- 5. Retrieve all of the document ids from the database. Then do the same again, except this time including all of the document contents. Finally, individually retrieve each of the documents you created above.
- 6. Update the first document you created in the database, changing some of the properties in the document. Check to make sure your document has been updated, by retrieving it.
- 7. Delete the first document you added to the database, and then retrieve all documents to confirm it has been deleted.
- 8. Write a simple CouchApp where users can store JSON objects entered into a textarea in a web page. [1]

References

- [1] Apache CouchDB 2.0 Documentation. Couchapp.
- [2] The Apache Software Foundation. Couchdb.
- [3] PouchDB. pouchdb-server.