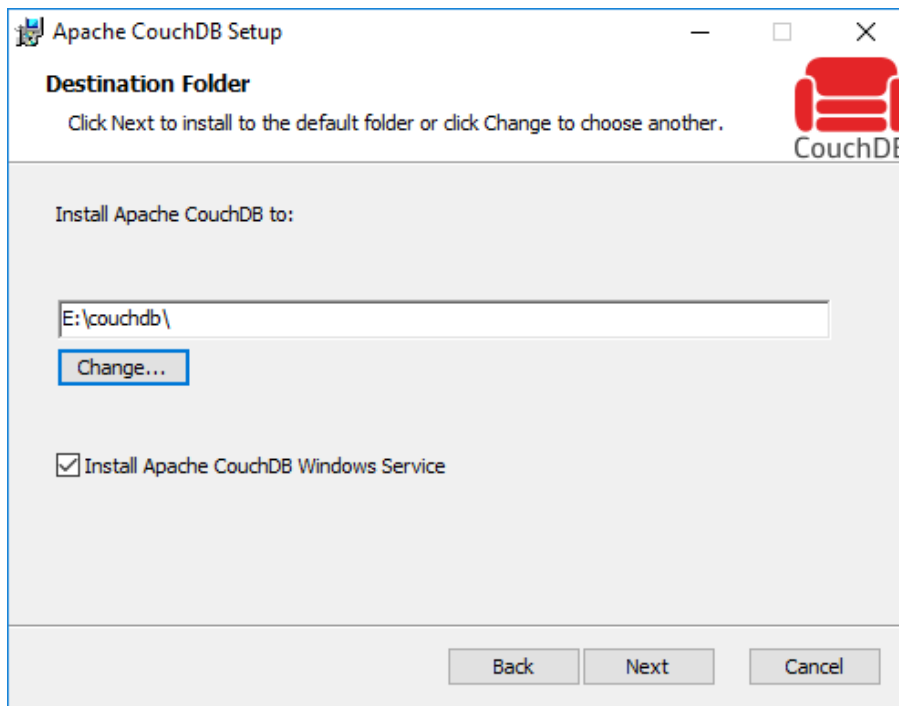
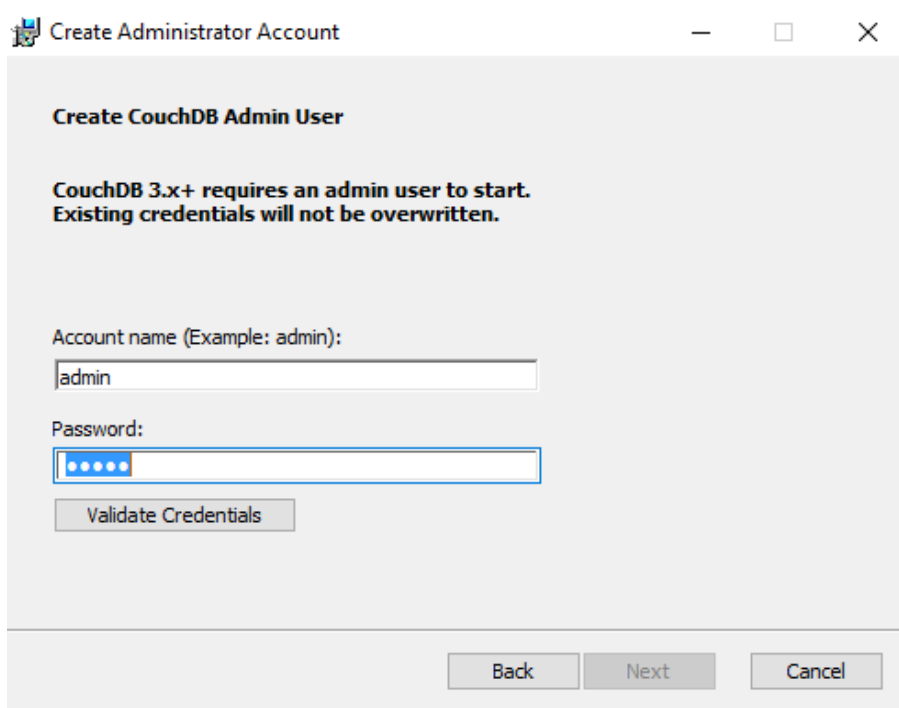


# CouchDB client application

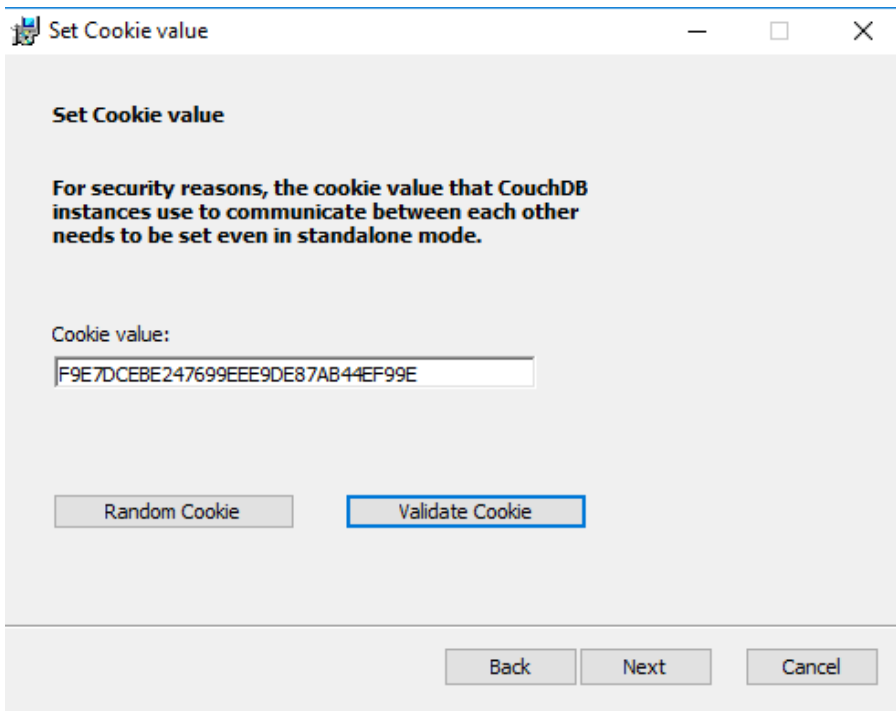
Download couchdb: <https://couchdb.apache.org/#download>  
(for windows (x64): apache-couchdb-3.3.2.msi) and run the installation file.



Install couchdb in a folder on a drive (folder name without spaces) for example: e:\couchdb (or c:\couchdb).



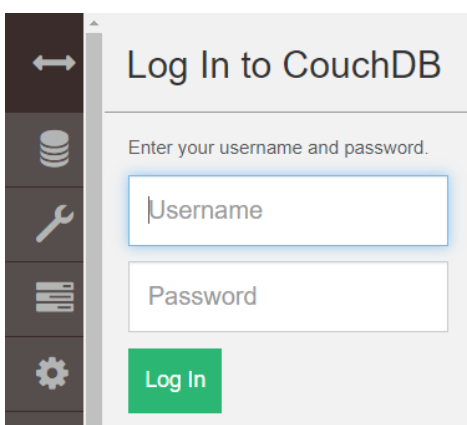
Choose an admin user name and password. For testing purposes I am using admin:admin.  
The CouchDB database server will only run on my local machine.



Choose a random cookie. Then click Next and Install to proceed with the installation until it finishes. There will be a Windows service active called Apache CouchDB (if you left the checkbox about it unchanged).

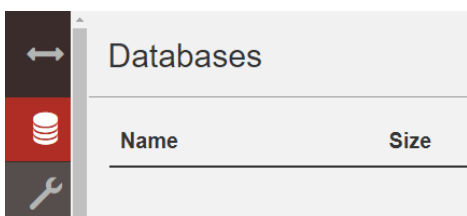
Go with a Windows explorer to the drive where you installed CouchDB (in my case the E: drive) and create a folder with the name: couchdb\_files. The application puts the output file in this folder.

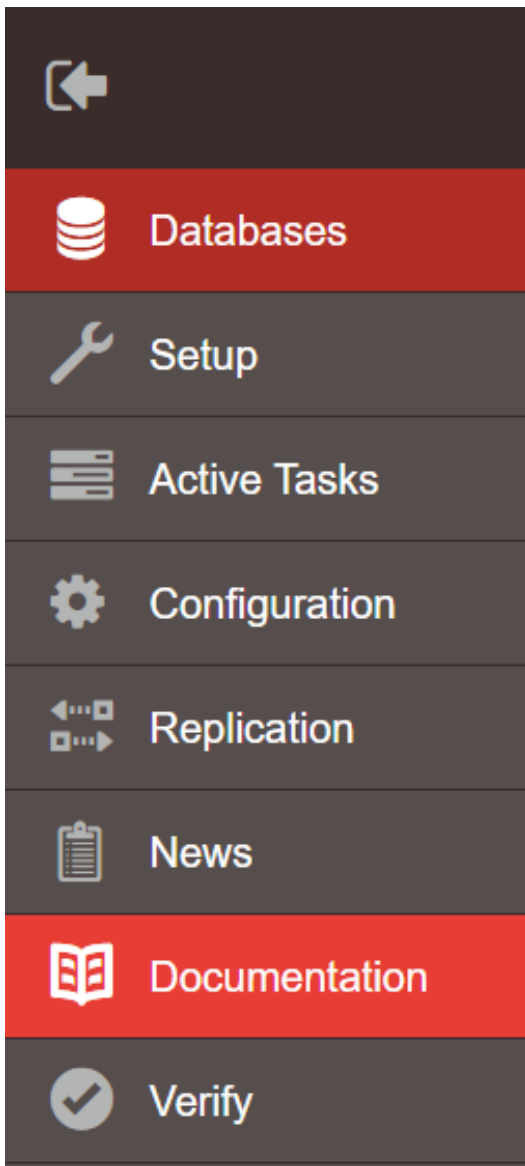
Start your favourite browser and go to the CouchDB utility using this url: <http://localhost:5984/ utils>. You should get a login screen.



Type in the username admin and the password admin. You should then get the admin panel from CouchDB (it's called Project Fauxton in this version).

You will get an empty databases list. Open the menu and scroll down to the documentation.





In the documentation you can read about the next steps you have to take to get CouchDB ready for use.

In the administration guides you find a description of the setup steps in 2. Setup. The 2.1 Single Node Setup text describes the setup process we are going to use.

Go to: <http://localhost:5984/ utils/#setup>

### Setup Apache CouchDB

## Welcome to Apache CouchDB!

This wizard should be run directly on the node, rather than through a load-balancer. You can configure a single node, or a multi-node CouchDB installation.

Configure a Cluster

Configure a Single Node

You don't have to do anything about replicate data at this time.

Click on the Databases menu and you will see the 2 system databases: `_replicator` and `_users`.

Next click on the Verify menu to check if everything is setup right. Except for the replication everything should be OK.

The B4J application uses the command line tool named curl. In the CouchDB User Guides documentation you can find some explanations under 1.4.

Follow the instructions from this website to install curl:

<https://developer.zendesk.com/documentation/api-basics/getting-started/installing-and-using-curl/>

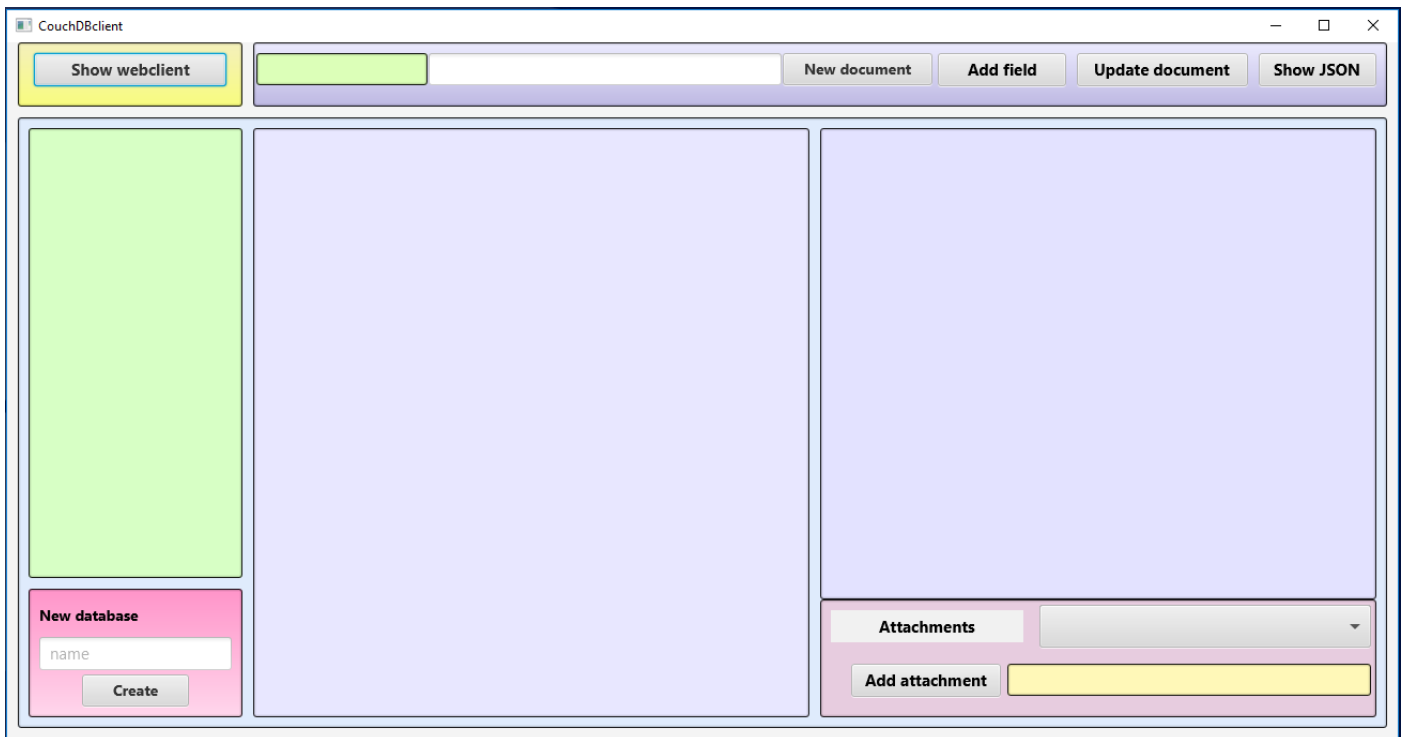
You can read about the use of this tool on this website too: which flags to use when and so on. A command line example:

```
E:\couchdb_files>curl --help
Usage: curl [options...] <url>
```

An example of a CouchDB response string after getting a document:

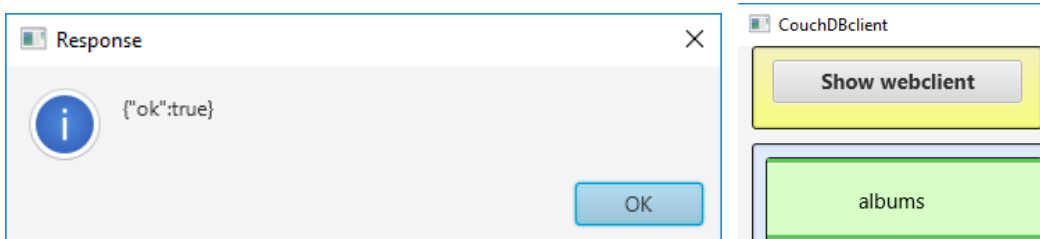
```
E:\couchdb_files>type output.json
{"_id":"e3ad990eb8ae858717e447259d016ae7","_rev":"2-7afb28b7b794b1dd4c1542958db02ffb","artist":"first
artist","name":"first album","_attachments":{"E:\\afbee1dingen\\Thailand\\koh-samui-thailand.jpg":{"
content_type":"image/jpg","revpos":2,"digest":"md5-1hUAq4tOfR07RNk72CcE+g==","length":113212,"stub":t
rue}}}}
```

Now you are ready to use the B4J application. Download and unzip the zip-file from the forum. Open the couchdbclient application in the IDE. If you installed CouchDB in a another drive then the default E: drive then change the value of the variable “rootdrive” (Class\_Globals subroutine) to the drive letter you are using. Run the application. An empty user interface appears.



Click on the Show webclient button and you should see the login screen from CouchDB in a webview. This is the Fauxton utility that you can also use in a browser. Click on the Hide webclient and the B4J user interface re-appears. Let’s make a new database.

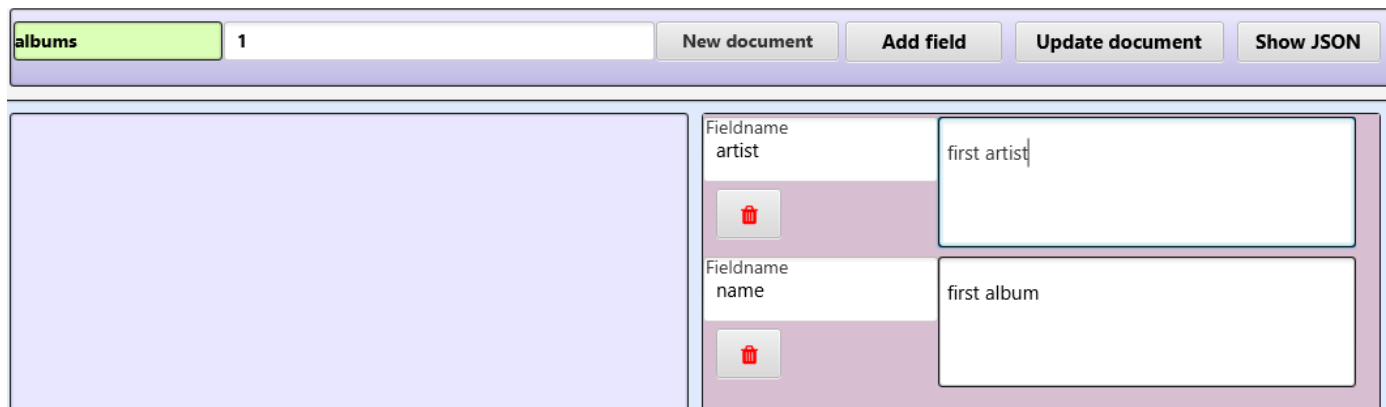
Type a name for the database in the textfield under New database and click Create. The database name is added to the green list and the response message is shown:



Click on the database name (in the example: albums) to select that database. Then you can add new documents to this database by clicking on the New document button.

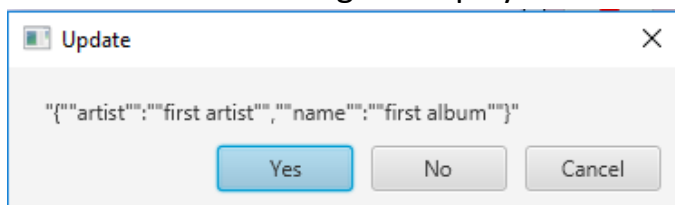


A UUID is generated (see the white field). You can change the id to a unique string or number of your choice. Click in the white id field and clear it. Then type in the id and press Enter or use the accept button of the field. Now you can type a fieldname and some content for that field.

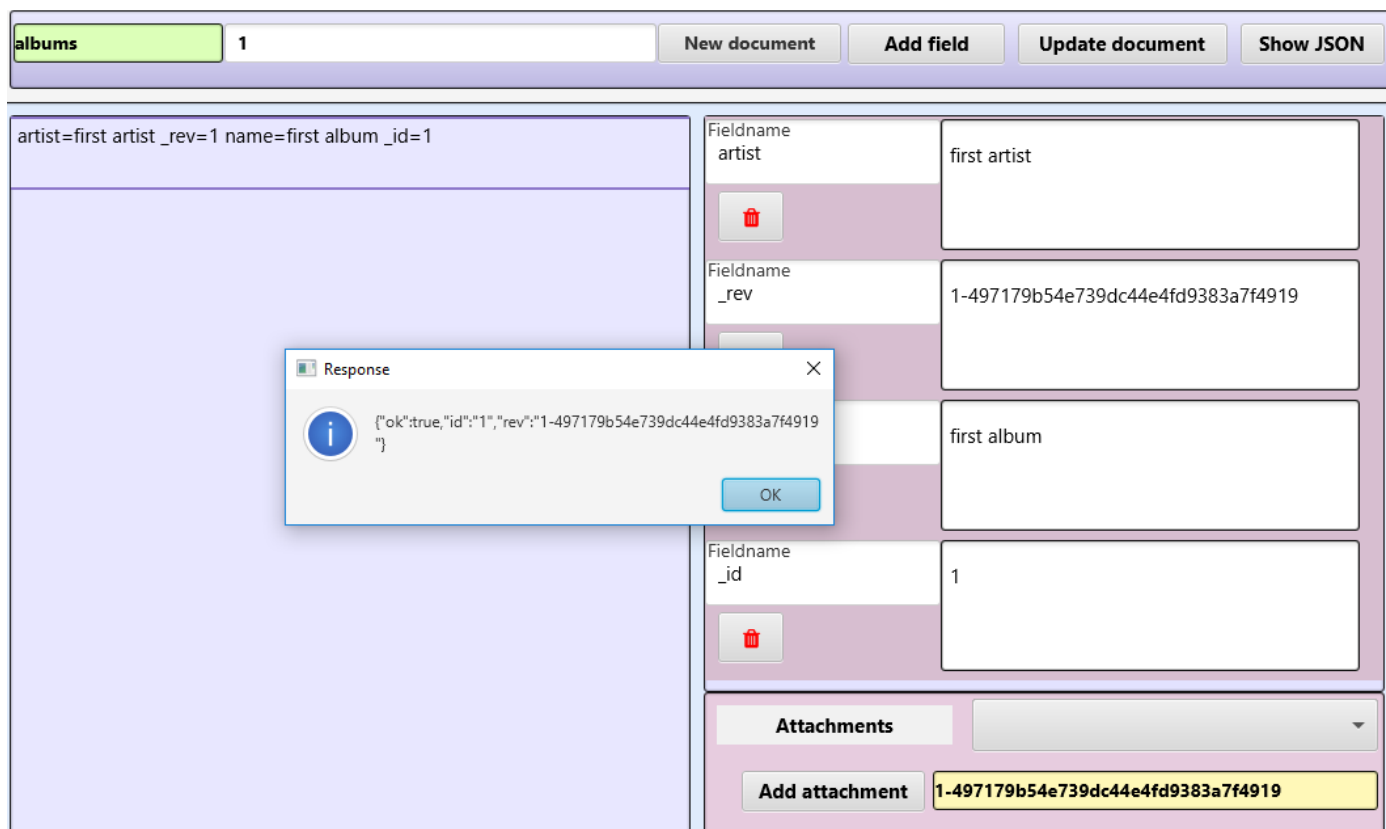


Click on the Add field button to have more fields. Click on the Update document to finish.

A confirmation message is displayed:



Click yes to proceed.



The response from CouchDB is "ok": "true". The "id" and "rev" fields are added to the document. The "rev" field contains a revision code that will be changed after each update.

If you click on the Show JSON button you can see the JSON representation of the document.

New documentAdd fieldUpdate documentHide JSON

```
{
  "artist": "first artist",
  "_rev": "1-497179b54e739dc44e4fd9383a7f4919",
  "name": "first album",
  "_id": "1"
}
```

Click on the Hide JSON button to hide this panel.

Each document from a database can have any number of specific fields. The second document in this example has an extra field “year”.

albums

artist=first artist \_rev=1 name=first album \_id=1

year=2020 artist=second artist \_rev=1 name=second album \_id=2

Fieldname  
year

2020

Fieldname  
artist

second artist

Fieldname  
\_rev

1-7e2168350474df3dc85518a3e90ca5ce

Fieldname  
name

second album

You can add attachments to a document.

Select a document and then click on the Add attachment button. Select an image (\*.jpg or \*.png) from the Windows Open File dialog. The attachment will be added to the document.

\_attachments={E:\afbeeldingen\Thailand\koh-samui-thailand.jpg={content\_type=image/jpeg, digest=md5-lhUAq4tOfRO7RNk72CcE+g==, length=113212, stub=true, revpos=2}} artist=first artist \_rev=2 name=first album \_id=1

Fieldname  
\_attachments

{E:\afbeeldingen\Thailand\koh-samui-thailand.jpg={content\_type=image/jpeg, digest=md5-lhUAq4tOfRO7RNk72CcE+g==, length=113212, stub=true, revpos=2}}

You can then select the image from the attachments dropdown list (combobox).

Attachments

Add attachment

E:\afbeeldingen\Thailand\koh-samui-thailand.jpg

A dialog appears showing the image.



And that's what you can do with this B4J application.

You can of course do the same in the CouchDB webclient.

Limitations in this version:

- Uploading an attachment in the CouchDB webclient doesn't work yet. In an external browser this works fine. Maybe some adjustments to the use of the B4J webview need to be done.
- You can add multiple attachments to a document. Deleting one attachment is not possible yet. You can delete the `_attachments` field in the document but then you will delete ALL the attachments from that document.
- Using text file attachments or Word document attachments are not implemented yet.
- The JSON code can't be changed in this version because this could lead to unwanted error messages.