# Introduction

Mapping My Life is a web application based on Cozy Cloud which allows users to visualize their displacement data more easily and intuitively. The displacement data includes the geolocation data and other communications data like sms and phone calls.

This document will give you a whole concept of this application. It will introduce the environment , the functionality of the application, the framework that used and also the type of data.

# Environment

The application is running on Cozy Cloud which is a platform that brings all your web services in the same private space(<https://cozy.io/>). It is a personal server hosting web applications to manipulate personal data.

In order to develop or test Mapping My Life, you need to install the Cozy V3 environment. You can find the document with more details here (<https://cozy.github.io/cozy-docdev-> [v3/fr/intro.html#présentation-de-la-plateforme](https://cozy.github.io/cozy-docdev-v3/fr/intro.html" \l "présentation-de-la-plateforme)) about how to install the environment.

The most simple way is to use docker.

**Steps:**

1. Install Docker first on your computer

2. Pull the image:

$ docker pull cozy/cozy-app-dev

3. Run the development server:

$ cd mappingmylife

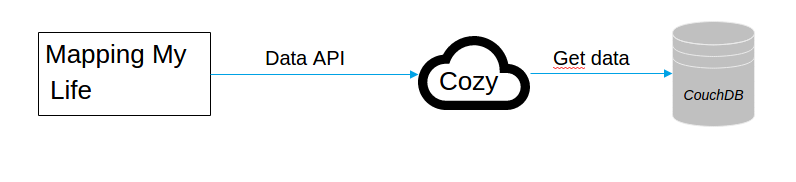
$ docker run --rm -it -p 8080:8080 -p 5984:5984 -v "$(pwd)/build":/data/cozy-app -v "$HOME/db":/usr/local/couchdb/data -v "$HOME/storage":/data/cozy-storage --name=cozydev cozy/cozy-app-dev

Now the application will run on : http://app.cozy.tools:8080/ (password default is cozy).

You can access to CouchDB with URL: http://cozy.tools:5984/\_utils/

# Architecture

Mapping My Life is a client-side application because Cozy will not support server-side application in Version 3. We can use only Cozy Data API(<https://github.com/cozy/cozy-client-js/blob/master/docs/data-api.md>) or Cozy Data System(<https://github.com/cozy/cozy-stack/blob/master/docs/data-system.md>) to interact with CouchDB.



## Framework used

We use React and Redux JavaScript library to build user interface of the application. Since react provides a component based structure, we can re-use the components anywhere so it makes our application scalable and much easier to developer and maintain the code.

Besides, in order to manage JavaScript modules dependencies more easily we use Webpack which is a bundler for modules to bundle JavaScript files for usage in a browser.

You can find webpack configuration files of application Mapping My Life in the folder /config and the file named webpack.config.js in root folder

**Data Base**

There are three types of data in the data base CouchDB.

### Data format

1. GeoPoint which related to periodic geolocation (SOLO)

{

"docTypeVersion": "test\_data",

"timestamp": "2016-11-14T10:35:10Z",

"docType": "fr.orange.geopoint",

"longitude": 2.294722,

"msisdn": "33688088155",

"radius": 10000,

"latitude": 48.800556

}

”latitude” and “longitude” represent the location

“timestamp” represents when the point is located

“msisdn” represents phone number

“docType” is used to indicate the type of data

2. PhoneCommunicationLog which related to CRA( comptes rendus d’appels)

{

"msisdn": "33688088155",

"networkType": "4G",

"docType": "fr.orange.phonecommunicationlog",

"type": "SMS sortant",

"endCause": "Non significatif",

"latitude": "48.800556",

"chipType": "M",

"longitude": "2.294792",

"timestamp": "2016-11-15T08:59:59",

"partner": "0689629968",

"docTypeVersion": "test\_data",

"length": 1

}

“latitude”, “longitude”, “msisdn”, and “docType” have the same meaning like GeoPoint.

“type” represents the type of message

“partner” represents phone number with which the user contact

3. Favorite Point which related to the favorite location we add on the map

{

"category": "sport",

"latitude": 48.890833,

"longitude": 2.326944

}

“latitude” and “longitude” represent the location

“category” represents the type of this location(like: home, work, sport, market…)

**Data permission on Cozy**

Since our application is client-side application, when a user installs it, he will be asked to accept an initial set of permission for this app. With the permission, our application can make a request to Cozy to get data from CouchDB.

We configure the permission in manifest.webapp file.

Here is an example of our permission configuration:

{

"permissions": {

"pointfavoris":{

"description": "Required for favorite place",

"type": "fr.orange.pointfavoris",

"verbs": ["GET", "POST", "PUT", "DELETE"]

},

"geopoint":{

"description": "required to manage geolocation information",

"type": "fr.orange.geopoint",

"verbs": ["GET", "POST", "PUT"]

},

"phonecommunication":{

"description": "Required to manage communications information",

"type": "fr.orange.phonecommunicationlog",

"verbs": ["GET", "POST", "PUT"]

}

}

You can find more information about permission here((<https://github.com/cozy/cozy-stack/blob/master/docs/permissions.md>))

**Manage Database**

**You can use**