

Donor ReMapper

Design Documentation

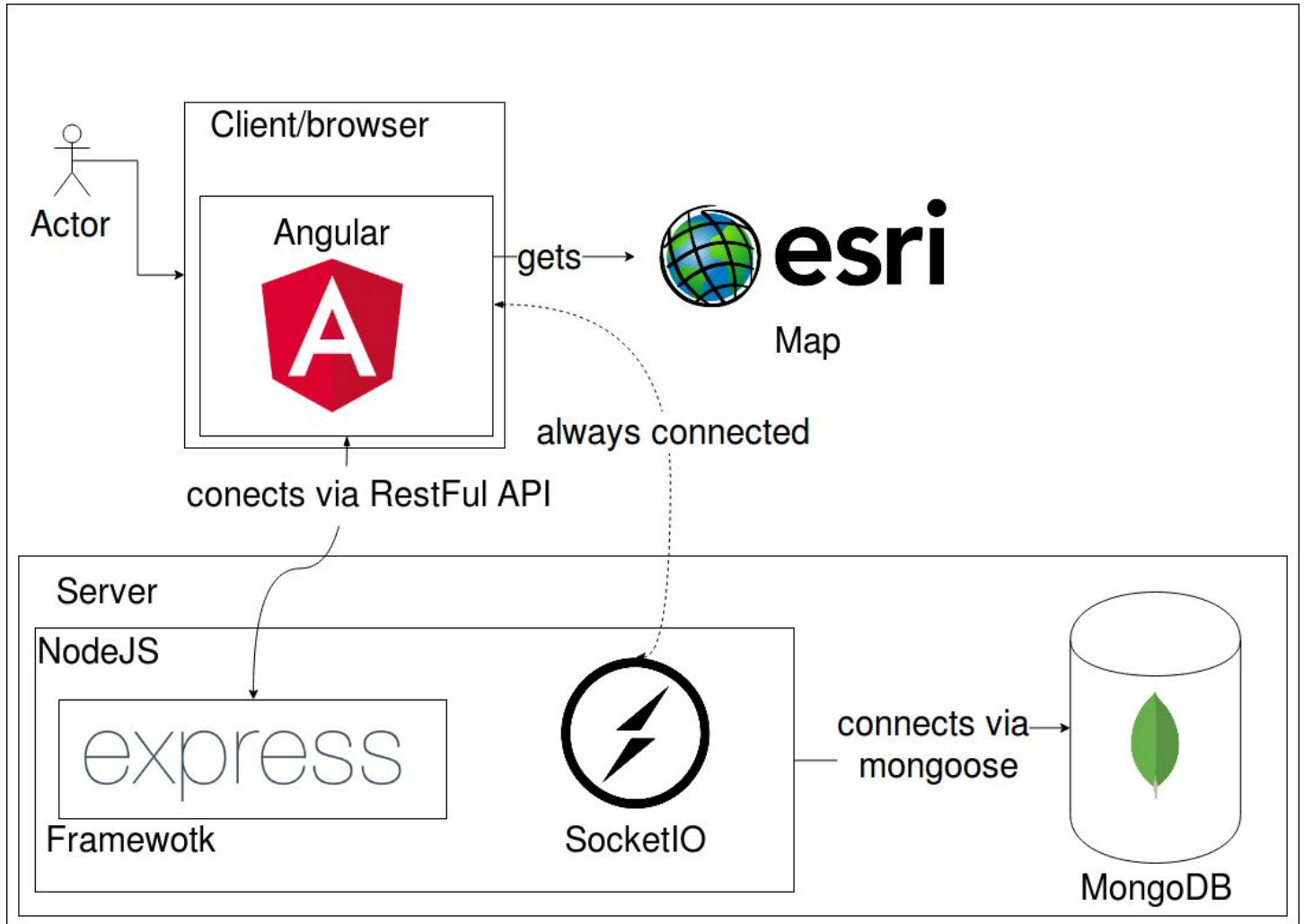
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System design

(component interaction diagram)



1

¹ More about this diagram will be described below.

All the technologies, libraries and APIs used to develop the application.

Technologies²

1. Back end

a. NodeJS

i. Socket IO

used to establish non stop connection between front and back ends

ii. ExpressJS (with its components)

iii. Mongoose

For connecting

iv.

v. to MongoDB

vi. Libraries

1. Bluebird

Used for creating promises (mostly for Mongoose)

2. Lodash

Working with objects and Array

b. Database

i. MongoDB NoSQL database

2. Front end

a. Angular 4

Single page application framework

b. Socket IO

For real Time connection

c. Esri ArcGis map

As a map for front end

d. RxJS

Observable library

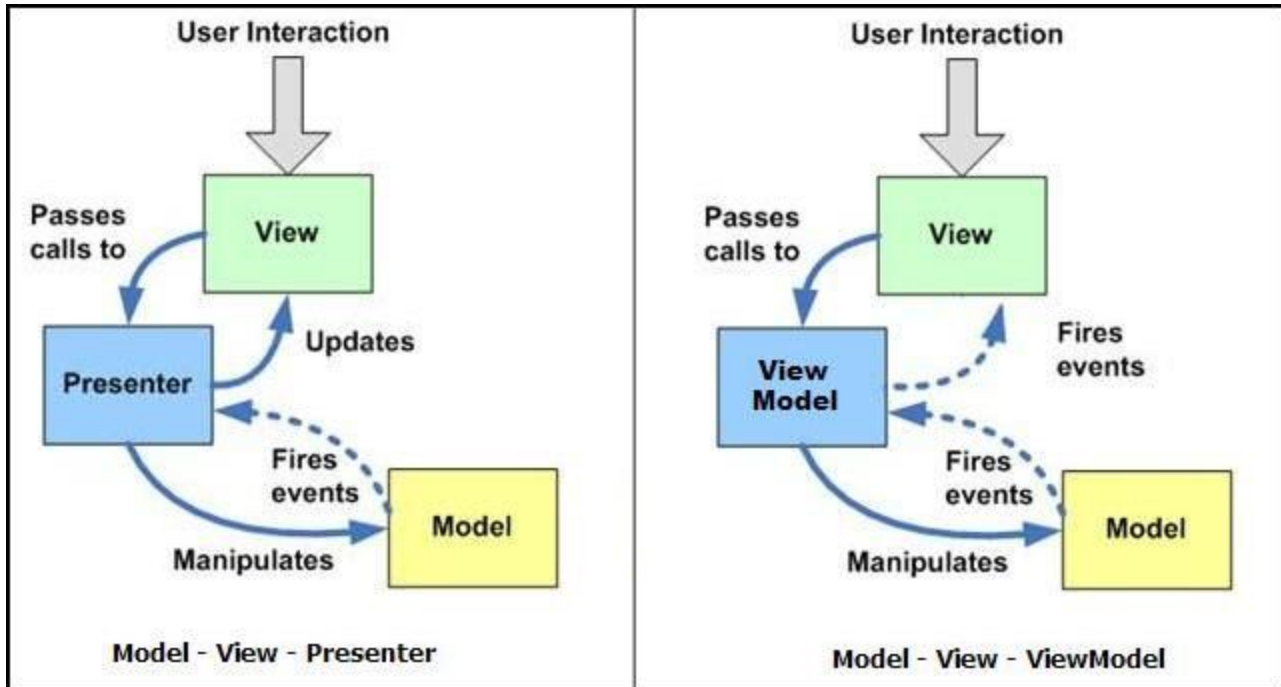
e. Lodash

² Links to technologies presented in appendix

Other technical details

Front end is created using MVVM architectural pattern.

Back end of the application is created using MVP architectural pattern.



Also while doing project found bug in <https://github.com/bougarfaoui/ng-socket-io> lib, where they didn't handle event subscription(not reported yet).

Appendix

Links to some resources below.

<https://socket.io/>

<http://angular.io/>

<http://reactivex.io/rxjs/>

<http://expressjs.com/>

<https://lodash.com/>

<http://mongoosejs.com/>

<https://nodejs.org/en/>

<http://bluebirdjs.com/>