Gossip Girl

Growing up, our founders counted "Gossip Girl" among their all time favourite TV shows. As a tribute to the show we have decided to build a Gossip Girl service internally. The service tracks changes made in a database and notifies subscribers in real-time to changes they are interested in. For instance, Blair only wants to track changes made to Chuck's whereabouts while Georgina wants to track everything about everyone.

Unfortunately, our developers are busy working on a deus ex machina and since shutting themselves in a room a few weeks ago, have refused to come out. We can't wait for them any longer and this is where you come in. We'd like you to design and build a notification system that will allow a HTTP client to subscribe to changes in a MongoDB database in real-time.

With so many of our developers currently unavailable and the last signs of life from that room being sounds of laughter tainted with madness, we are also looking to hire! To increase your chances and to show off your mad skills also allow notifications to be subscribed to at the field level.

To summarize your task

1. Build a notification system to notify subscribers of changes made in a mongodb database in real-time

2. (For brownie points) Allow subscriptions at the field level of a document.

***If, you are not familiar with MongoDB replace MongoDB with a DB of your choice.***

Additional Requirements

1. **Write Up**

Please include a small write-up explaining how you arrived at the final solution, the various walks on the internet that this task took you on. Details about the various algorithms/tools you considered, resaons for discarding them, why you picked the algorithm/tool finally used etc.

2. **Usage Manual**

As with any piece of software you must include a manual which will list out

the steps needed to use your code. This manual must include dev requirements,

install requirements etc.

Evaluation Criteria

1. **Code Quality**

Please write the code in a professional manner. We will judge you by the

quality of the code, including comments and tests. \*\*Code readablity is very

important\*\*.

2. **References**

You are free to use any resources you see fit - friends, text books, the

internet, etc. In fact, we encourage this! Please do mention these sources

used, if any, in your writeup.