CÁC BƯỚC CÀI ĐẶT REACTIVE BEERS USING COUCHDB TRÊN UBUNTU

Install Curl:

```
b1709267@b1709267:~$ sudo apt install curl
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libcurl4
The following NEW packages will be installed:
  curl libcurl4
0 upgraded, 2 newly installed, 0 to remove and 224 not upgraded.
Need to get 373 kB of archives.
```

Install Nodejs: https://github.com/nodesource/distributions/blob/master/README.md

Node.js v15.x:

```
# Using Ubuntu
curl -fsSL https://deb.nodesource.com/setup_15.x | sudo -E bash -
sudo apt-get install -y nodejs
```

```
# Using Debian, as root
curl -fsSL https://deb.nodesource.com/setup_15.x | bash -
apt-get install -y nodejs
```

```
Fetched 5.350 B in 2s (2.412 B/s)
Reading package lists... Done

## Run `sudo apt-get install -y nodejs` to install Node.js 15.x and npm
## You may also need development tools to build native addons:
     sudo apt-get install gcc g++ make
## To install the Yarn package manager, run:
     curl -sL https://dl.yarnpkg.com/debian/pubkey.gpg | gpg --dearmor | sudo t
ee /usr/share/keyrings/yarnkey.gpg >/dev/null
     echo "deb [signed-by=/usr/share/keyrings/yarnkey.gpg] https://dl.yarnpkg.c
om/debian stable main" | sudo tee /etc/apt/sources.list.d/yarn.list
     sudo apt-get update && sudo apt-get install yarn

b1709267@b1709267:~$ sudo apt install -y nodejs
```

```
b1709267@b1709267:~$ sudo apt install -y nodejs
[sudo] password for b1709267:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libpython-stdlib libpython2.7 libpython2.7-minimal libpython2.7-stdlib
  python python-minimal python2.7 python2.7-minimal
Suggested packages:
  python-doc python-tk python2.7-doc binfmt-support
The following NEW packages will be installed:
  libpython-stdlib nodejs python python-minimal python2.7 python2.7-minimal
The following packages will be upgraded:
  libpython2.7 libpython2.7-minimal libpython2.7-stdlib
```

```
b1709267@b1709267:~$ sudo apt install gcc g++ make
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  g++-7 gcc-7 libasan4 libatomic1 libc-dev-bin libc6 libc6-dbg libc6-dev
  libcilkrts5 libgcc-7-dev libitm1 liblsan0 libmpx2 libquadmath0
  libstdc++-7-dev libtsan0 libubsan0 linux-libc-dev manpages-dev
Suggested packages:
  g++-multilib g++-7-multilib gcc-7-doc libstdc++6-7-dbg gcc-multilib
  autoconf automake libtool flex bison gcc-doc gcc-7-multilib gcc-7-locales
  libgcc1-dbg libgomp1-dbg libitm1-dbg libatomic1-dbg libasan4-dbg
  liblsan0-dbg libtsan0-dbg libubsan0-dbg libcilkrts5-dbg libmpx2-dbg
  libquadmath0-dbg glibc-doc libstdc++-7-doc make-doc
The following NEW packages will be installed:
  g++ g++-7 gcc gcc-7 libasan4 libatomic1 libc-dev-bin libc6-dev libcilkrts5
  libgcc-7-dev libitm1 liblsan0 libmpx2 libquadmath0 libstdc++-7-dev libtsan0
  libubsan0 linux-libc-dev make manpages-dev
```

Cài đặt create-react-app:


```
linhb1709348@linhb1709348-VirtualBox:~$ sudo npm install -g create-react-app

added 67 packages, and audited 68 packages in 12s

4 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
npm notice
npm notice New minor version of npm available! 7.6.3 -> 7.7.6
npm notice Changelog: https://github.com/npm/cli/releases/tag/v7.7.6
npm notice Run npm install -g npm@7.7.6 to update!
npm notice
linhb1709348@linhb1709348-VirtualBox:~$
```

Update version 7.7.6:

Create App Reactive-Beers:

***Note: Nếu bị lỗi cài đặt ở bước này
([https://github.com/facebook/create-react-app/issues/6776])

```
b1709267@b1709267:~$ create-react-app reactive-beers

Creating a new React app in /home/b1709267/reactive-beers.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

npm ERR! code EACCES
npm ERR! syscall mkdir
npm ERR! path /home/b1709267/.npm/_cacache/content-v2/sha1/b5/d4
npm ERR! errno -13
npm ERR!
npm ERR! Your cache folder contains root-owned files, due to a bug in
npm ERR! previous versions of npm which has since been addressed.
npm ERR!
npm ERR! To permanently fix this problem, please run:
npm ERR!   sudo chown -R 1000:1000 "/home/b1709267/.npm"

npm ERR! A complete log of this run can be found in:
npm ERR!     /home/b1709267/.npm/_logs/2021-03-30T07_51_39_504Z-debug.log

Aborting installation.
  npm install --save --save-exact --loglevel error react react-dom react-script
s cra-template has failed.

Deleting generated file... package.json
Deleting reactive-beers/ from /home/b1709267
Done.
```

Hãy gõ lệnh "sudo npm cache clean --force":

```
b1709267@b1709267:~$ sudo npm cache clean --force
npm WARN using --force Recommended protections disabled.
```

Kết quả:

```
b1709267@b1709267:~$ create-react-app reactive-beers

Creating a new React app in /home/b1709267/reactive-beers.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...
```

```
  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

  cd reactive-beers
  npm start

Happy hacking!
```

Chuyển vào thư mục Reactive-beers và cài đặt Pouchdb:

```
linhb1709348@linhb1709348-VirtualBox:~$ cd reactive-beers/
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$ npm install -S pouchdb

added 42 packages, and audited 2028 packages in 20s

137 packages are looking for funding
  run `npm fund` for details

2 low severity vulnerabilities

To address all issues, run:
  npm audit fix

Run `npm audit` for details.
```

Cài đặt tree:

```
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$ sudo apt install tree
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  tree
0 upgraded, 1 newly installed, 0 to remove and 235 not upgraded.
Need to get 40,7 kB of archives.
After this operation, 105 kB of additional disk space will be used.
Get:1 http://vn.archive.ubuntu.com/ubuntu bionic/universe amd64 tree amd64 1.7.
0-5 [40,7 kB]
Fetched 40,7 kB in 1s (46,5 kB/s)
Selecting previously unselected package tree.
(Reading database ... 135705 files and directories currently installed.)
Preparing to unpack .../tree_1.7.0-5_amd64.deb ...
Unpacking tree (1.7.0-5) ...
Setting up tree (1.7.0-5) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$
```

```
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$ tree -L 1
.
├── node_modules
├── package.json
├── package-lock.json
├── public
├── README.md
└── src

3 directories, 3 files
```

```yaml
version: "2.1"

services:
  couchdb:
    image: couchdb:2.3.0
    ports:
      - "5984:5984"

  node:
    image: node:10
    command: npm start
    working_dir: "/app"
    volumes:
      - ".:/app"
    ports:
      - "4242:3000"
    depends_on:
      - couchdb
```

```makefile
USER_ID = $(shell id -u)
GROUP_ID = $(shell id -g)

export UID = $(USER_ID)
export GID = $(GROUP_ID)

DOCKER_COMPOSE_DEV = docker-compose -p reactive-beers

help: ## Display available commands
	@fgrep -h "##" $(MAKEFILE_LIST) | fgrep -v fgrep | awk 'BEGIN {FS = ":$

install: ## Install docker stack
	$(DOCKER_COMPOSE_DEV) run --rm node bash -ci 'npm install'

start: ## Start all the stack
	$(DOCKER_COMPOSE_DEV) up -d

stop: ## Stop all the containers
	$(DOCKER_COMPOSE_DEV) down

log: ## Show logs
	$(DOCKER_COMPOSE_DEV) logs -f node
```

```
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$ sudo apt install docker-
compose
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  bridge-utils cgroupfs-mount containerd docker.io git git-man
  golang-docker-credential-helpers liberror-perl pigz python-asn1crypto
  python-backports.ssl-match-hostname python-cached-property python-certifi
  python-cffi-backend python-chardet python-cryptography python-docker
  python-dockerpty python-dockerpycreds python-docopt python-enum34
  python-funcsigs python-functools32 python-idna python-ipaddress
  python-jsonschema python-mock python-openssl python-pbr
  python-pkg-resources python-requests python-six python-texttable
  python-urllib3 python-websocket python-yaml runc ubuntu-fan
```

```
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$ sudo make install start
docker-compose -p reactive-beers run --rm node bash -ci 'npm install'
Creating network "reactivebeers_default" with the default driver
Pulling couchdb (couchdb:2.3.0)...
2.3.0: Pulling from library/couchdb
6d28e14ab8c8: Pull complete
9cf6e27e7e38: Pull complete
2b9a6db58b64: Pull complete
58096347c906: Pull complete
0d7af4b039c1: Pull complete
dd4bfd0cb336: Pull complete
dbe4a9962253: Pull complete
0f3c7a3f6cdf: Pull complete
4af36376896d: Pull complete
e9b9167a06d4: Pull complete
89304259a96a: Pull complete
e10b3ffb143a: Pull complete
Digest: sha256:ee75c9a737e7c48af0170142689959f2d70f93700162fef40818c799dfeecb8e
```

```
137 packages are looking for funding
  run `npm fund` for details

found 1 low severity vulnerability
  run `npm audit fix` to fix them, or `npm audit` for details
docker-compose -p reactive-beers up -d
reactivebeers_couchdb_1 is up-to-date
Creating reactivebeers_node_1 ...
Creating reactivebeers_node_1 ... done
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$
```

```
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$ sudo docker ps
CONTAINER ID        IMAGE                   COMMAND                  CREATED
      STATUS              PORTS                                        NAMES
a962cca9bcce        node:10                 "docker-entrypoint.s…"   About a minute
 ago   Up About a minute   0.0.0.0:4242->3000/tcp                       reactiv
ebeers_node_1
0264ff5208dd        couchdb:2.3.0           "tini -- /docker-ent…"   6 minutes ago
      Up 6 minutes        4369/tcp, 9100/tcp, 0.0.0.0:5984->5984/tcp   reactiv
ebeers_couchdb_1
linhb1709348@linhb1709348-VirtualBox:~/reactive-beers$
```

Nếu lỗi lệnh "sudo npm start":

([https://stackoverflow.com/questions/54751812/getting-enoent-no-such-file-or-directory-open-error-when-trying-to-move-app])
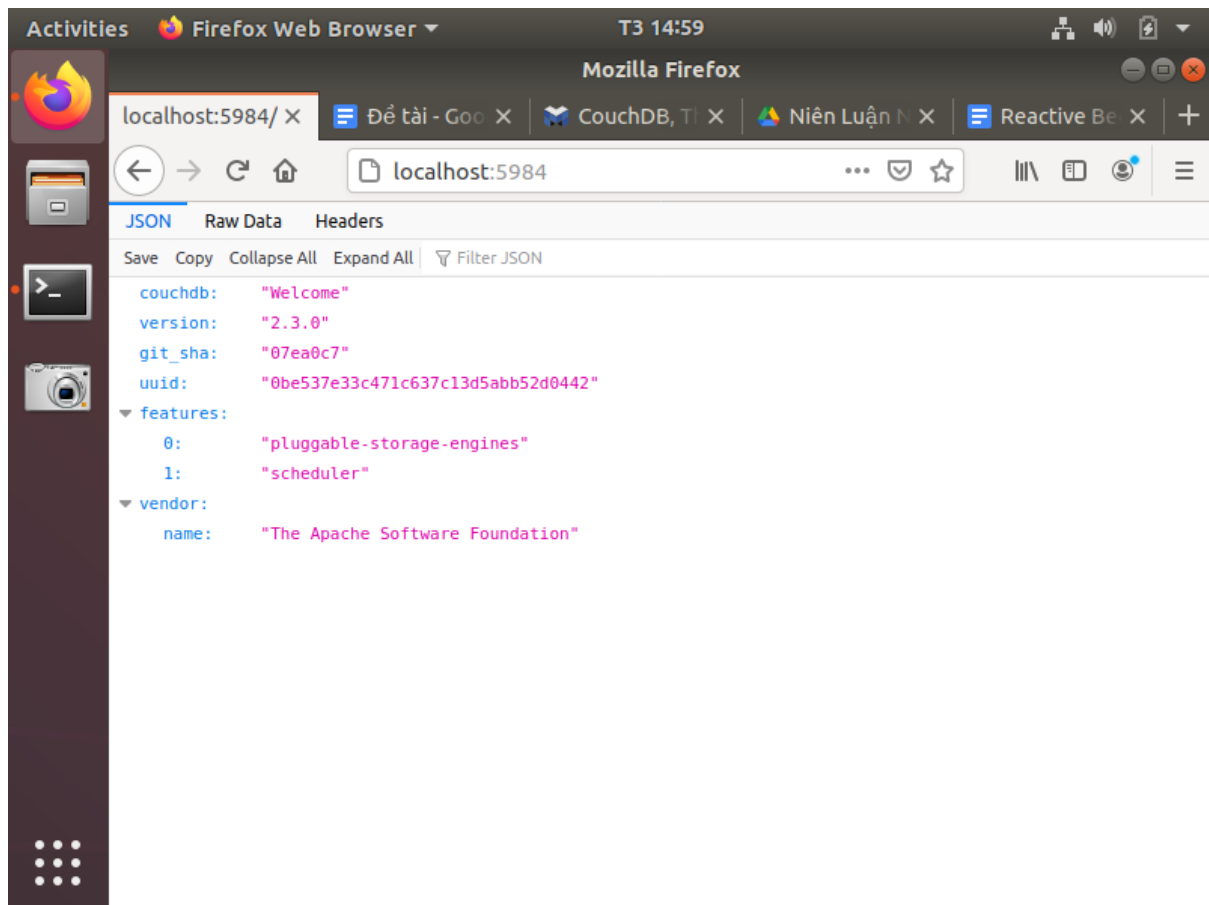

```
Failed to compile.

EACCES: permission denied, open '/home/b1709267/reactive-beers/node_modules/.cache/.eslintcache'
```
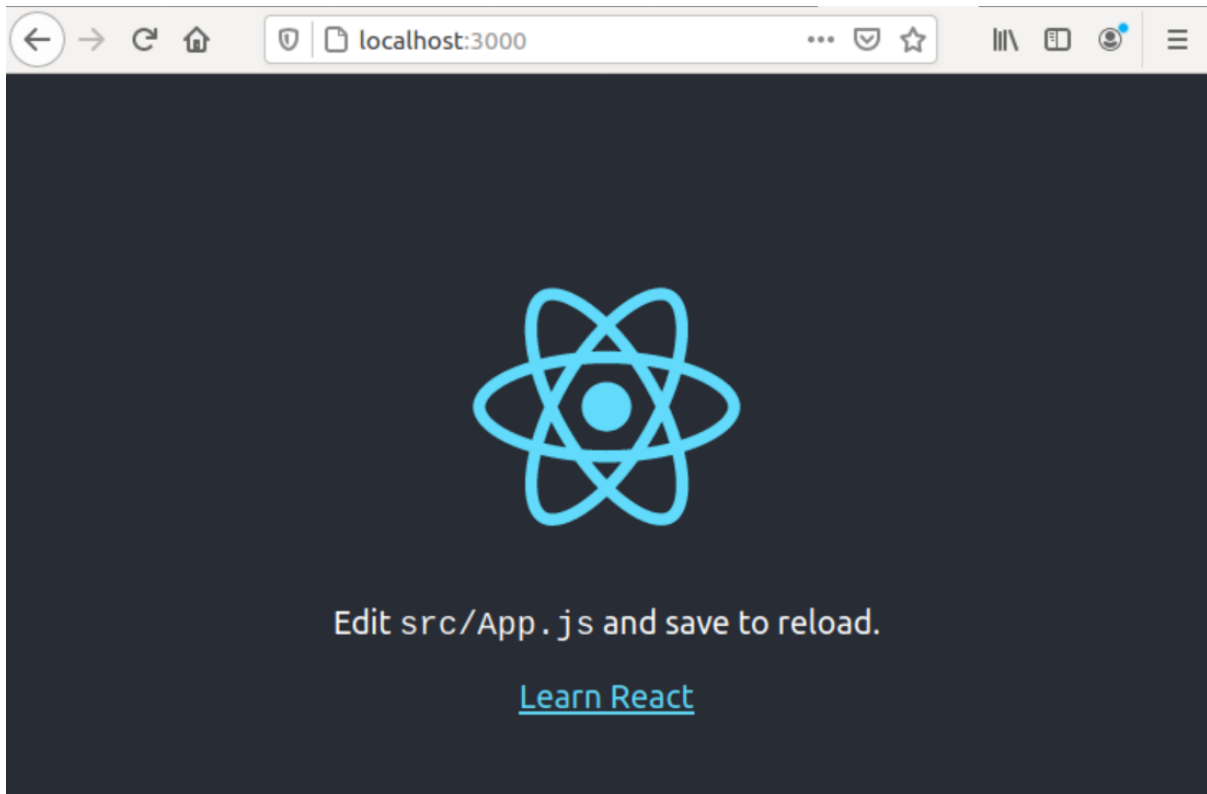
Hãy chạy lệnh "mv node_modules/.cache node_modules/.cacheBackup"


```
b1709267@b1709267:~/reactive-beers$ sudo mv node_modules/.cache node_modules/.cacheBackup
```
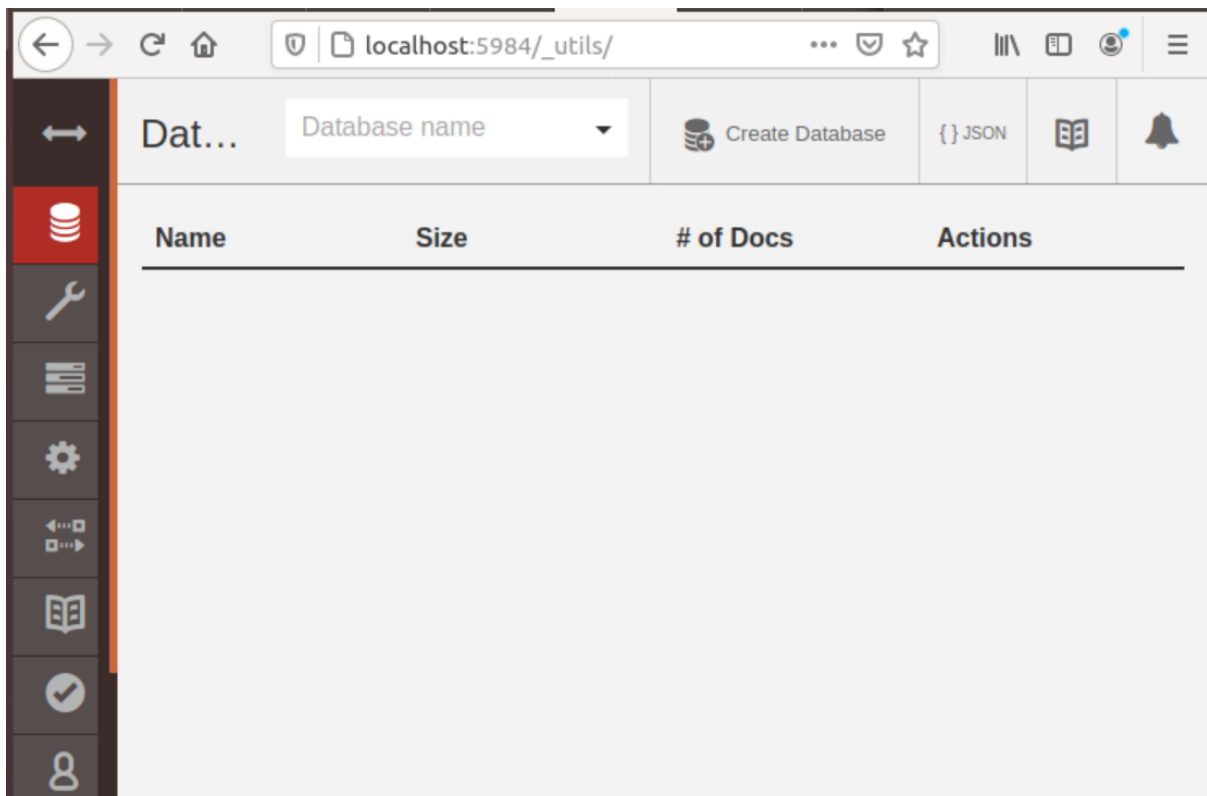
Sau đó chạy lại lệnh "sudo npm start":


```
Compiled successfully!

You can now view reactive-beers in the browser.

  Local:            http://localhost:3000
  On Your Network:  http://10.0.2.15:3000

Note that the development build is not optimized.
To create a production build, use npm run build.
```

Nếu lệnh "sudo npm start" lỗi 1 lần nữa hay xóa file backup (node_modules/.cacheBackup) bằng lệnh rm. Sau đó chạy lệnh "mv node_modules/.cache node_modules/.cacheBackup" và chạy lại "sudo npm start"

Database lúc này vẫn chưa có gì:

Tiến hành thiết lập cơ bản:

Database lúc này:

Nhập http://localhost:3000 trên trình duyệt firefox:
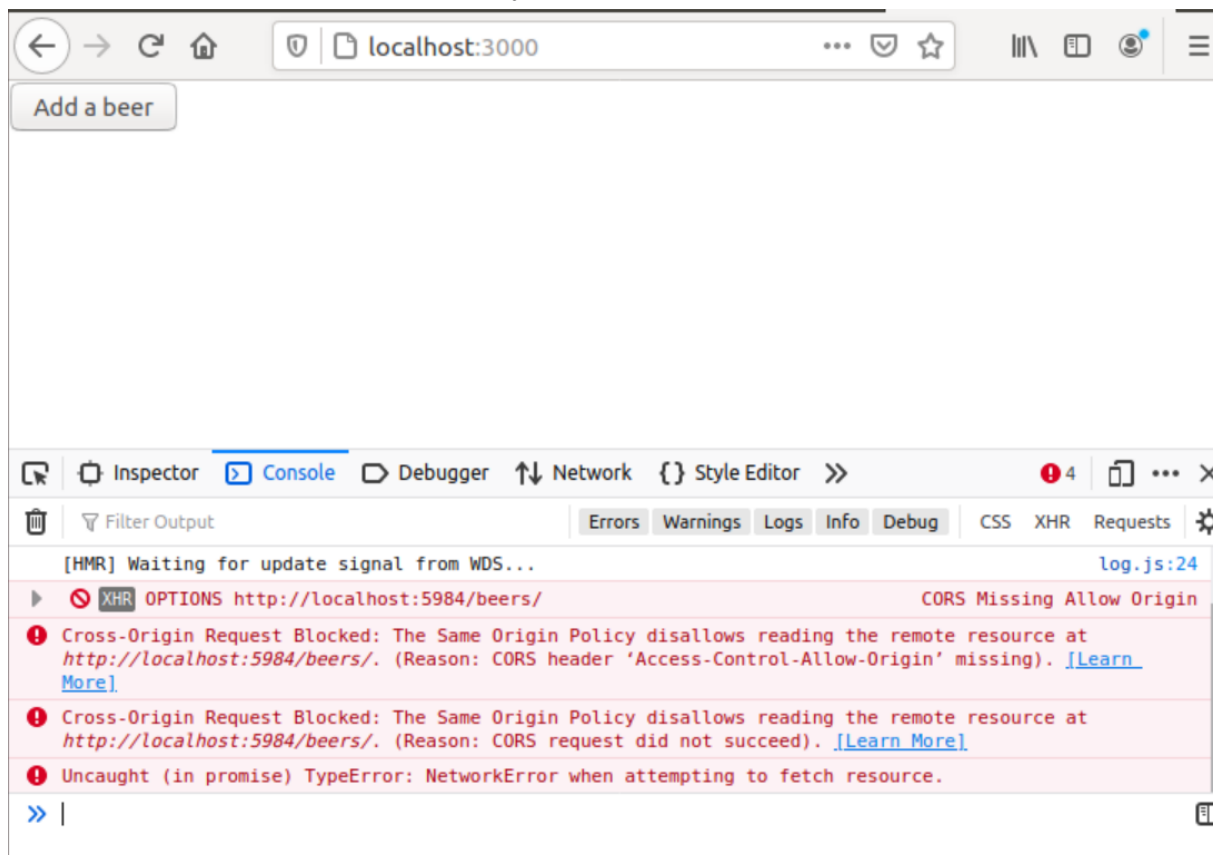
Thực hiện các bước sau để sửa lỗi: ([https://pouchdb.com/errors.html])
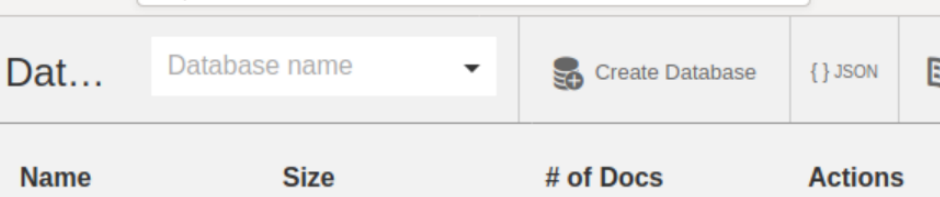Chạy lệnh sudo npm install -g add-cors-to-coucdb để cài đặt add-cors vào couchdb.

Sau khi cài xong ta dùng lệnh sudo add-cors-to-couchdb http://127.0.0.1:5984/ -u myusername -p mypassword (myusername và và mypassword :tên user và password để đăng nhập vào couchdb đã tạo lúc ban đầu).

Tiếp theo chạy lệnh sudo npm start ta thu được kết quả như sau:
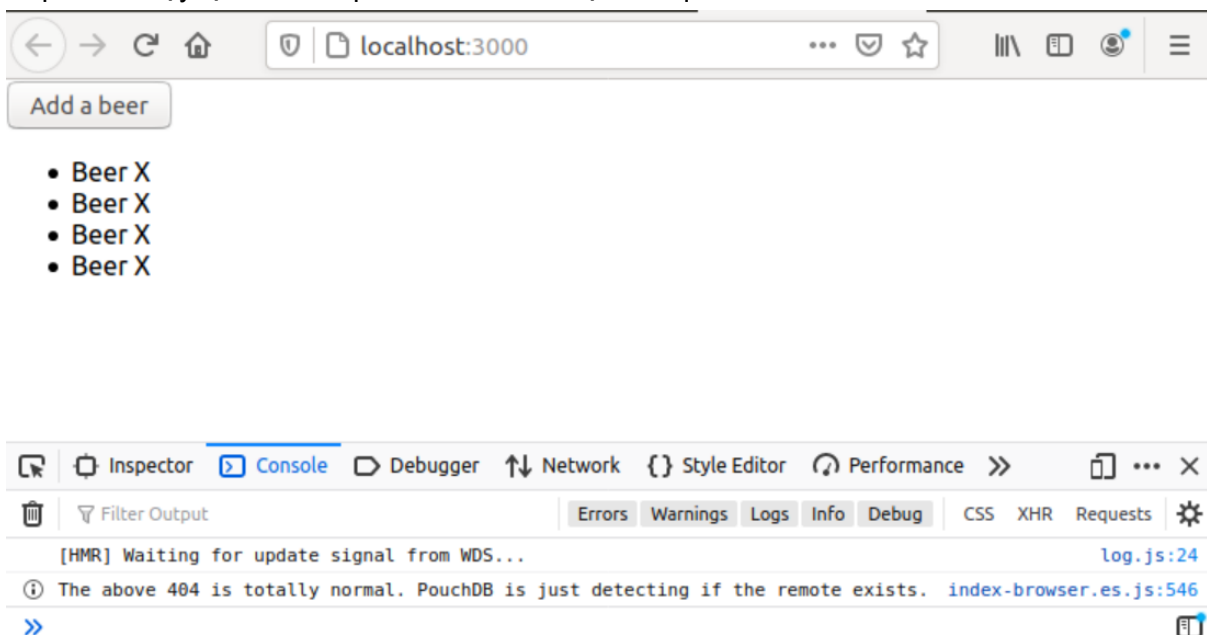
Lúc này nếu database beers chưa được tạo ra sẽ được tạo tự động:

localhost:5984/_utils/#

Dat...   Database name ▼   🗄 Create Database   { } JSON   📖   🔔

Name	Size	# of Docs	Actions
_global_changes	2.3 KB	7	🔀 🔒 🗑
_replicator	3.8 KB	1	🔀 🔒 🗑
_users	3.8 KB	1	🔀 🔒 🗑
beers	1.1 KB	4	🔀 🔒 🗑