

## Challenges

### 1. Merge state.json and mongo db

When try to get states data, query first mongodb and compare state.code with collection's stateCode name and merge them

### 2. Handle exception cases for invalid param in post/patch request

There are different exceptions cases in these API, so for each case, I need to make relevant error message with 404 code

### 3. seeding database

When first run application, we should import some funfacts data on some states

So I just implement seeding parts using moogose, so user does not need to input initial data manually.

### 4. after deploy, launch node js instance automatically

So I added "start": "node server.js" on package.json

### 5. A catch all should be provided to serve a 404 status if the route does not exist.

In order to catch all routes, I used app.use(function (req, res, next) {

And for web browser accept, I used res.format

### 6. Check if state is correct or not

There are multiple routes which requires to check if state param is correct or not.

Instead of duplicated code for checking state, I introduce the middleware "checkState" and add it.

### 7. Pass 404 page error

When route does not exist, task requires return 404 status.

So I set 404 status for html page, but still failed to pass.

I figured out finally that I need to return 404 error page as follow.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>404</title>
```

```
</head>
```

```
<body>
```

```
<h1>404</h1>
```

```
</body>
```

```
</html>
```