Front-end Programming Test

Part of this test is to use the specification (link provided) and API explorer to find out how to use the API to retrieve the data that should be presented by the application. The other part is to implement this in a small JavaScript/TypeScript application.

Since you'll be printing position information about moving objects in a live environment, the response from some HTTP requests might vary between the calls.

Description

Create a simple web application in JavaScript or TypeScript that performs the following operations in sequence. The Angular framework and Bootstrap package can be used (optional) to create the user interface. Any other relevant packages can also be used. All dependencies should be declared in a package.js file to ensure that the application can installed and tested by running the commands *npm install* and *npm start*. The lite-server (or similar package) should be used to host the code locally.

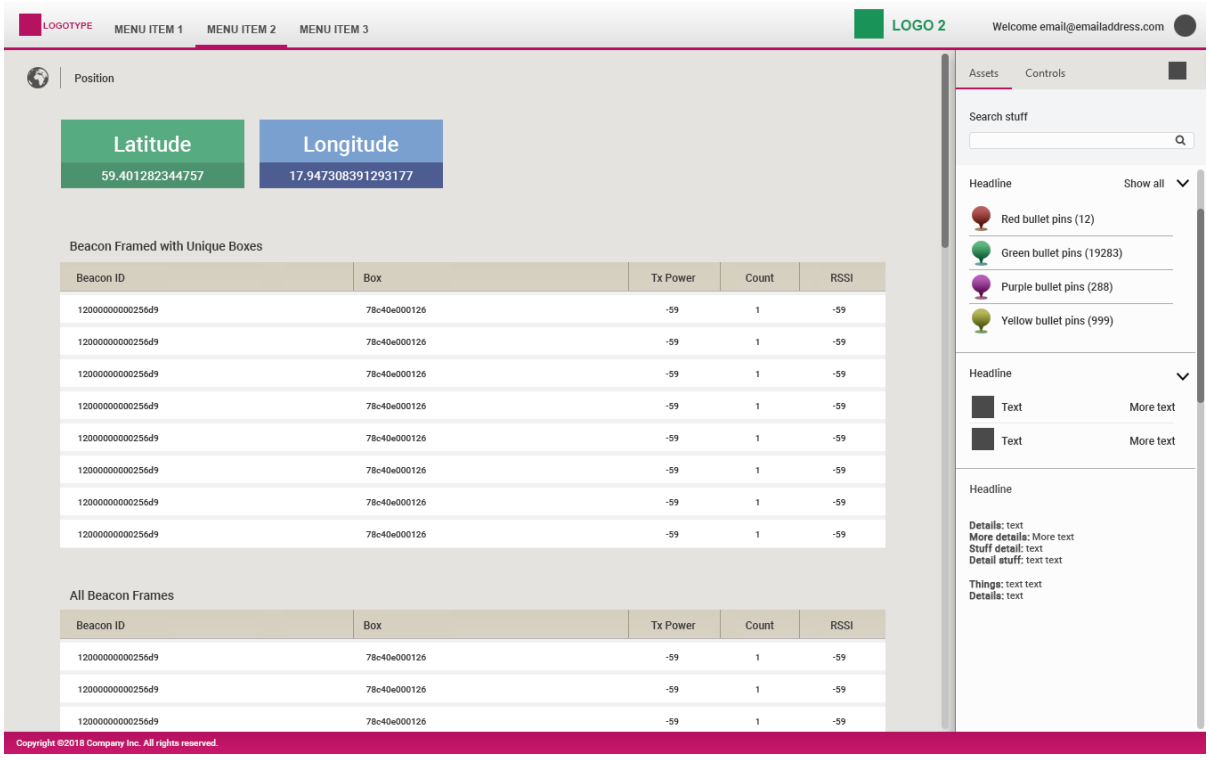
1. Login to https://development.hd-wireless.com:9001. The username is assess@hd-wireless.com and the password is assess1234.
2. Retrieve the current position of Beacon with id:12000000000256d9 and print the latitude and longitude.
3. Retrieve 32 Beacon Frames that was received within one hour (3600 seconds) from the Beacon with id:12000000000256d9 and list all the fields from each Beacon Frame sorted by RSSI, starting with the strongest signal.
4. Using the Beacon Frames from step 4), print a list of the unique Boxes that received a Beacon Frame from the Beacon with id:12000000000256d9 together with the highest RSSI for each Box. Example:

```
Box              RSSI
78c40e123456     -70
78c40e123457     -74
78c40e123458     -65
78c40e123459     -88
```

Front-end Design

The web application should be a responsive one (must look reasonably good at all form factors) and should follow the design below as close as possible (`layout.png` in the assets archive). Colors and fonts is specified in `color.txt`. You can use google chrome developer tools to review how the web application is rendered in different form factors.

Main Screen



Web API

The Web APIs that should be used are listed below. Note that neither the actual HTTP body or any query string are specified below (just hints). Please see the swagger specification at https://tools.hd-wireless.com/explorer/specs/griffin.yaml the API details. If desired, use the API explorer at https://tools.hd-wireless.com/explorer to test the APIs (set server address tohttps://development.hd-wireless.com:9001 and press explore to get started).

- POST /login. Use the “Id” and “Password” fields in the HTTP request body. The fields “FacebookToken” and "ExpirationTime" does not have to be set.
- GET /beacons/12000000000256d9/pos
- GET /beacons/12000000000256d9/frames. Use the “count” and “max_age” (unit: seconds) querystring parameters in the HTTP request.

HTTP Headers

Api-Version should be set to “3” in the HTTP header.

The username and password should be provided in the **X-Authenticate-User** and **X-Authenticate-Password** respectively when invoking POST /login.

The response from POST /login will include an authentication token. This should be passed in the **X-Authenticate-Token HTTP** header for all future API calls.