codeway

Full Stack Developer

Case Study

Disclaimer: Feel free to get creative! Your work will be in safe hands :)

codeway

Hi!

Thank you for devoting your time to this case study. We greatly appreciate it.

In this case study, we aim to understand:
1) Your approach to simple architectures
2) Your strengths
3) Potential areas for improvement

Most important of all, this case study will help us create a conversation space where we can exchange our thoughts and expectations on a deeper level.

Few things to keep in mind:

1 Please make sure to understand our expectations clearly before moving onto the solution phase

2 Please let us know if any part is unclear or you need additional information

3 Mind the brief, but feel free to get creative and go beyond what's asked here in this case study

4 Please complete the case before agreed deadline

Overview

Our mobile applications fetch configuration files whenever the app launches and use these files for app logic and UI configuration. There is a panel and backend servers to provide this service. Application managers can add or change data in configuration files using the panel.

You are asked to create a configuration management panel and REST API for serving these configuration json files for the applications. VueJS is preferred for the front-end and NodeJS is required for the back-end.

1. A panel, on which users can login and update the configuration parameters and keys. (Please see provided images for the UI)
2. A REST API that serves the configuration for the app in the json format.

Panel

- You need two pages: homepage (“/”) and sign in page (“/signin”).
- Design your pages to be responsive (Please see provided mobile view of parameters page).
- Please use firebase auth for the authentication.
- Any update should be sent to backend with firebase id token in “authorization” header.

Back-end

- You need two endpoints, one for modifying the configuration which will be used by the panel, and one for serving the configuration json to mobile clients.
- For the update, you should validate the firebase id token and for the serving part, a pre-defined api token should be checked.
- To store the configurations of the app, use Firestore database service.
- Use environment variables whenever necessary and avoid hard-coding information, so that your application is always ready to deploy anywhere.

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JSON Log Sample

A Sample JSON config

```
{
    “freeUsageLimit”: 5,
    “supportEmail": "support@codeway.co",
    "privacyPage": "https://codeway.com/privacy_en.html",
    "minimumVersion": "1.0",
    "latestVersion": “2.1",
    "compressionQuality": 0.7,
    "btnText":  "Try now!"
}
```

Requirements

1. Try to find the balance between clear architecture and keeping it simple.
2. Follow industry standards when storing and serving the results.
3. Source code should be uploaded to a private Gitlab repo.
4. UI should be as close as possible to the example images.
5. Separation of services is a plus.

Evaluation Criteria

Evaluation will be made with respect to following items:

1. Code design patterns.
2. Code repetition will be criticized.
3. Inefficient practices will be criticized. Keep in mind that the service will be running under massive traffic.
4. An easy to understand README is a must.

Bonus

1. Deploying your app on a cloud solution(like Heroku or Google Cloud) and providing us the API endpoints as well as panel url is a plus.
2. Add an extra functionality to be able to create audiences according to countries and serve the configuration files according to the client's country. You can assume clients country will be provided in a parameter while the mobil clients are sending requests to your backend server. This functionality should be manageable on the panel for each parameter. Make the necessary design changes accordingly(You may consider using modal or new page for editing parameter's value for different countries).

   Example:

   Let's say we want the latest version of the app to be available only users in Turkey. If the client sends the request with country parameter as "TR" they should get "latestVersion" parameter as "2.2" and if any other country is specified or if the country is not included in the request, they should get "latestVersion" as the default which is "2.1".

dream, measure, build, repeat.

We look forward to inviting you to the **Codeway** of doing things.

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