Senior Frontend - Technical Challenge

Introduction

Welcome to this technical challenge and thank you for your time and interest in this position. If you are here is because you have shown that you share our core values and you are somebody special we would like to work with. Now it's your chance to let your technical skills shine and amaze us!

The challenge shouldn't take you more than a few hours. If you find yourself investing too many hours on this then probably you are doing more than we would expect. Take this mainly as an opportunity to drive a technical conversation about it, not as a service that could be in production where every single detail must be ironed out.

Assignment Description

We have an API that lets you detect if an ID Document (DNI, Driver's license, etc.) is present on an image.

The API receives an image and returns information about the detection in JSON format (whether a document has been detected, the image of the cropped document, etc).

The assignment is to build a website that lets the user:

- Upload an image to know whether or not that image contains a document. If it does, the cropped version of the document returned by the service must be displayed somewhere on the page.
- Open the camera and perform the same detection operation based on an image captured from the camera. Again, if a document is detected, the cropped version should be displayed.

API Details

API technical details to perform detection:

Request:

- POST (multipart/form-data): https://demo.mobbeel.com/mobbscan/detectDocument.json
- Parameters:
    - licenseId = **mobbscan-challenge**
    - documentType = **ESP** (It is a placeholder for all supported Spanish documents)
    - documentSide = **0** (0 for document front side and 1 for document back side)
    - returnDocument = **true** (The result of the document detection will be received as base 64 JPG image)
    - image = MultipartFile with the content of the image to perform the detection (JPG format)

Response:

- ID document detected:
    - HTTP code: 200
    - JSON:

```
{
    "code": "OK",
    "description": "DETECT_DOCUMENT_SUCCESS",
    "imageDocument": {BASE_64_ENCODED_JPG_IMAGE}
}
```

- ID document NOT detected:
    - HTTP code: 200
    - JSON:

```
{
    "code": "ERROR",
    "description": "ERROR_DOCUMENT_NOT_DETECTED"
}
```

API Example

Curl API example to perform a successful detection:

```
curl --request POST 'https://demo.mobbeel.com/mobbscan/detectDocument.json' \
--form 'image=@"/YOUR_IMAGE_PATH/DNI-V3-front.jpg"' \
--form 'licenseId="mobbscan-challenge"' \
--form 'documentSide="0"' \
--form 'documentType="ESP"' \
--form 'returnDocument="true"'
```

DNI-V3-front.jpg: https://nextcloud.mobbeel.com/s/ZETG7pXGFzStgHS

Some hints about the submission

- Coding and documentation in English are required.
- Describe (or be prepared to tell us) the key design decisions you have made, problems you have found and how you solved them, testing, known issues, etc. ¿how would you improve the API that has been provided?
- The submission will be evaluated based on code quality, elegance, readability, flexibility, and modularity. Design and user experience will be also taken into account, as well as compatibility with the main browsers.
- Typescript is preferred but you could use Javascript.
  - If you choose any framework, library, etc. describe why and what value it brings.
- Extra mile 1: Responsive design
- Extra mile 2: Perform the detection on (nearly) real-time sending frames captured directly from the camera video flow (tip: you may want to use a low-res version of the frame to improve the speed of the process).
- This service is not storing the images you send or extracting any information, so you can work with a real ID document if you want (or with a specimen as the one provided, the service is not making validations about its authenticity).
- Take into account this API is not a production service so it is not monitored and you could experience some failures or downtime, if so, do not hesitate to contact us so we can fix it asap.
- Please send an email to aholgado@mobbeel.com and/or mgonzalez@mobbeel.com with any doubts regarding this challenge.

```
Happy coding!
```