Project Summary

Project Name   doc2tag
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Abstract

Logistics claims are handled through a 'chain of responsibility', where each party holds the prior party liable for damage and loss. The party that fails to provide evidence usually ends up responsible for damages.

As a result, most supply chain participants actively seek to collect 'Proof of Condition' as protection from such claims. Photos and videos of cargo and equipment are captured, checklists followed, and documents filled and filed. This can all require significant effort, discipline and speed - while overcoming distances between operations and offices.

CargoSnap makes collecting Proof of Condition fast and easy!

This project was focused on further improving this pre-existing service. The problem this project aimed to solve revolved around the challenge of capturing printed data from scanned documents.

Project Photos

As this project is a service rather than a product, there are no photos per say, besides the code itself! However, this included various API calls and pre-processing using OpenCV, and so photos of the same have been included below.
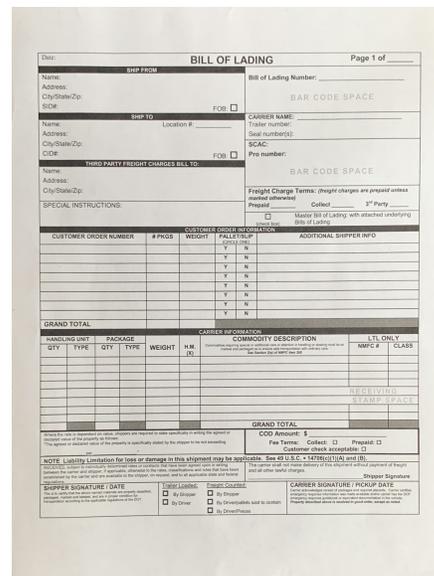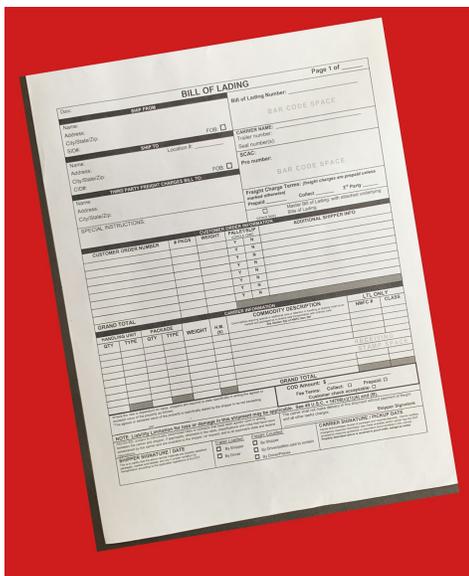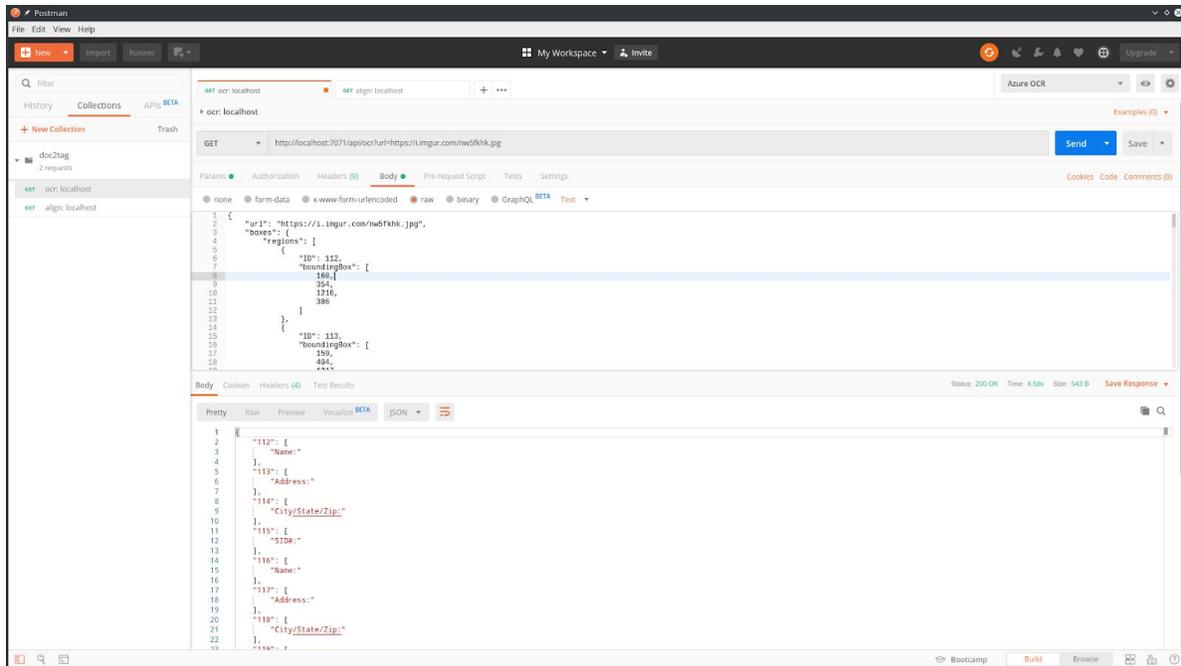
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CargoSnap provides a platform to store these *Proof of Condition* documents and photos, needing the user to simply click a photo with their device's camera, and entering all the required information.

Now, here lies the problem. The information is usually repetitive, with almost all of it having been previously entered in the *Shipment/Bill of Lading* documents. Instead of asking the user to enter the details (like name, location, tag number, etc.) again and again, this project aims to perform OCR (Optical Character Recognition) on these documents and extracting the information out of them automatically.

While these documents are structured, there is a problem that when scanned with a mobile phone it is likely that there will be issues with artefacts (fingers holding the paper, cutouts, skew, etc.). These issues get in the way of performing a quality OCR on these documents.

The project further aims at pre-processing the images to match a "clean template", and then to capture select fields from the template, process these with OCR and return a structured object with the requested fields data.