

**THE DOG
COMPANY**

Brochure 2020

THE DOG COMPANY SPA, SANTIAGO, CL.

APP

Complete software suite for the startup Nalkip

Software that makes it possible to implement a payment method plus a loyalty tool for any commerce in a turn-key solution. It contains a digital wallet that can be linked to any digital currency or a real bank account or any currency engine, a loyalty engine to send gifts, gift cards, etc... And a Data-Analysis tool that groups customers based on behaviour to send them things with the loyalty engine or target them for other purposes. It's used to implement other businesses as well, like food vouchers for example. The software was given as turn-key to Nalkip and served by them.

TECHNICAL HIGHLIGHTS

- ✓ The database model allows multiple merchants in one app
- ✓ Powerful customer clustering engine, designed specifically for this software

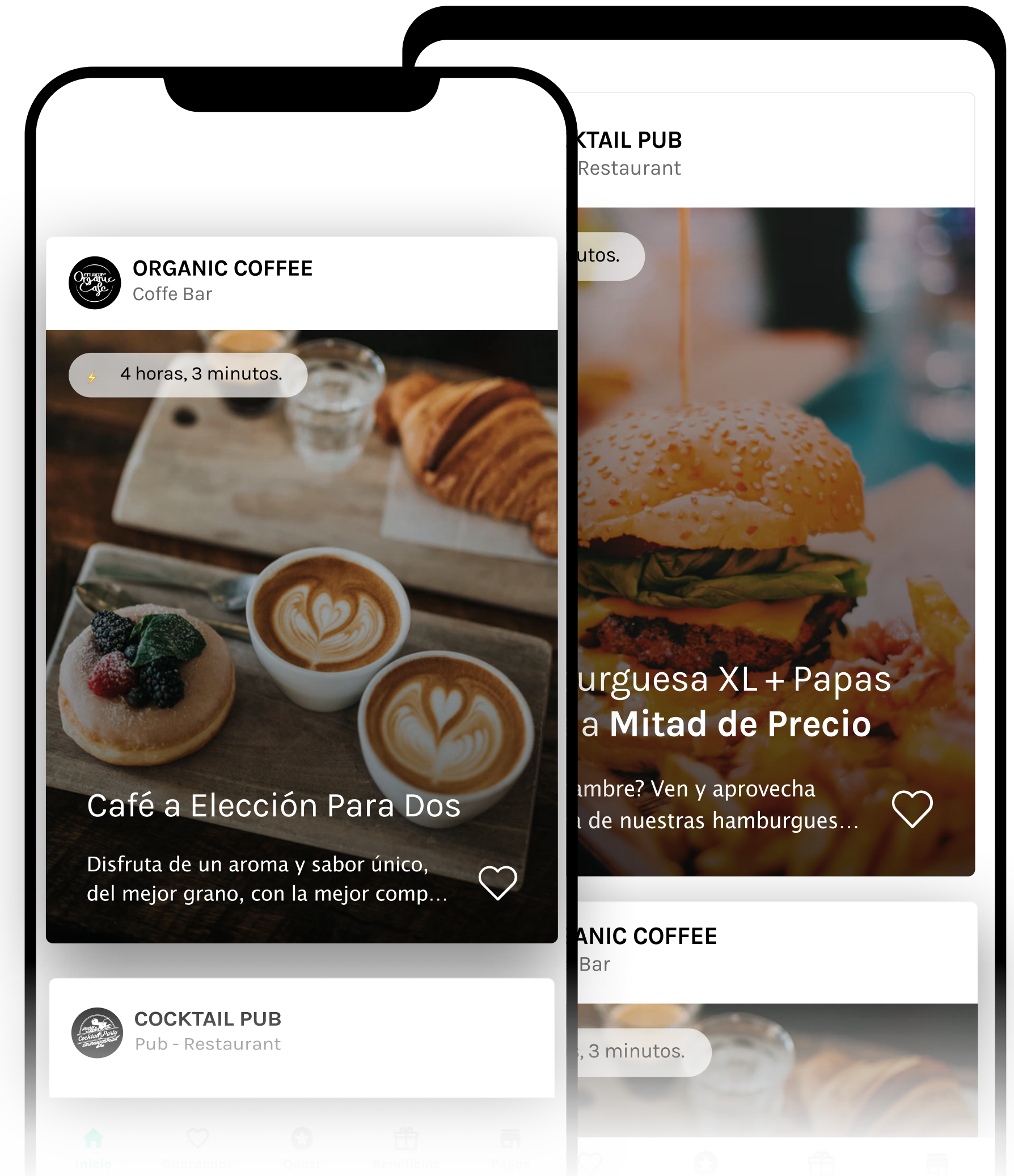
BUSINESS HIGHLIGHTS

- ✓ It allowed the development of a complete startup around the software, earning more than 200.000 USD in investment and currently working with different Banks who want to buy the solution.

REACT-NATIVE

DJANGO REST FRAMEWORK

HYPERLEDGER FABRIC BLOCKCHAIN



WEB APP

Digital mortgage originator with risk scoring

Mortgage simulator for the real state industry which lets them get an evaluation of the possible customers using a 100% online tool which ends up giving credit scoring for the real state company and suggestion of mortgages opportunities to the customer. The software was given Turn-Key to a real state services provider in Latam.

TECHNICAL HIGHLIGHTS

- ✓ Integration via scrapping with Chilean services to get the real data of the customers prior to their authorization (which is used later in the credit scoring)
- ✓ Use of the customer's credentials to get the data in a way that we never see nor store the credentials
- ✓ Must endure heavy loads in parallel. It scales up virtually indefinitely

BUSINESS HIGHLIGHTS

- ✓ This new system speeds up considerably the origination process for mortgages by evaluating first the maximum mortgage the customer can acquire and then offering them the properties they can buy with that mortgage, switching the process from the classical "First I choose the house, then I evaluate the mortgage" to "This is what you can get with your current conditions".

REACT

SERVERLESS FRAMEWORK

PYTHON REQUESTS/BEAUTIFUL SOUP

DYNAMODB



WEB APP

Software suite for the collection department in an international bank

The suite includes a workflow software and a Document Oriented Database. The software was built by TDC and it is served as a service to the bank. The workflow allows implementing any process with sequential and parallel subprocesses defined by the user. It can store an unlimited amount of process templates, run them as many times in parallel as needed, processes can nest to other processes, and many other features.

TECHNICAL HIGHLIGHTS

- ✓ Processing massive amounts of documents in very short periods of time (over 3000 contracts processed through OCR and classified in less than 20 mins).
- ✓ The architecture allows for elastic growth so that the processing of the files takes always less than 20 mins.

BUSINESS HIGHLIGHTS

- ✓ One of the processes powered by the solution was usually performed in batches of around 1000-4000 cases at the time and it took 1-3 months to complete them all. With the new software suite, the same task takes less than 1 week and it's 100% digital.

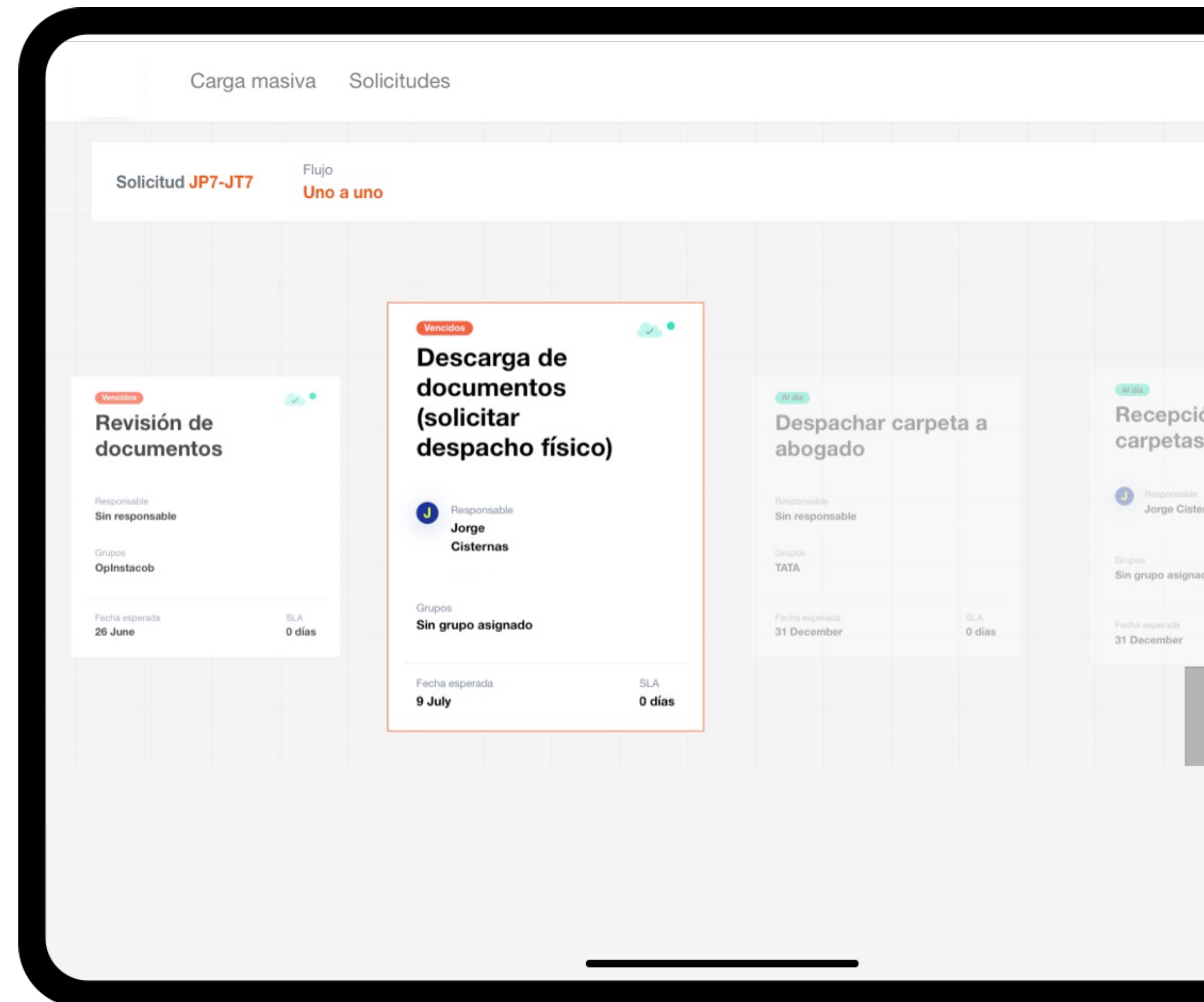
REACT

TESSERACT

DOCKER

SERVERLESS FRAMEWORK

AWS BATCH



Simulation and matching system for the Chilean public schools ordered by Consilium Bots and the Chilean Government

Same as New Haven's system but this time requested by the Chilean Government

TECHNICAL HIGHLIGHTS

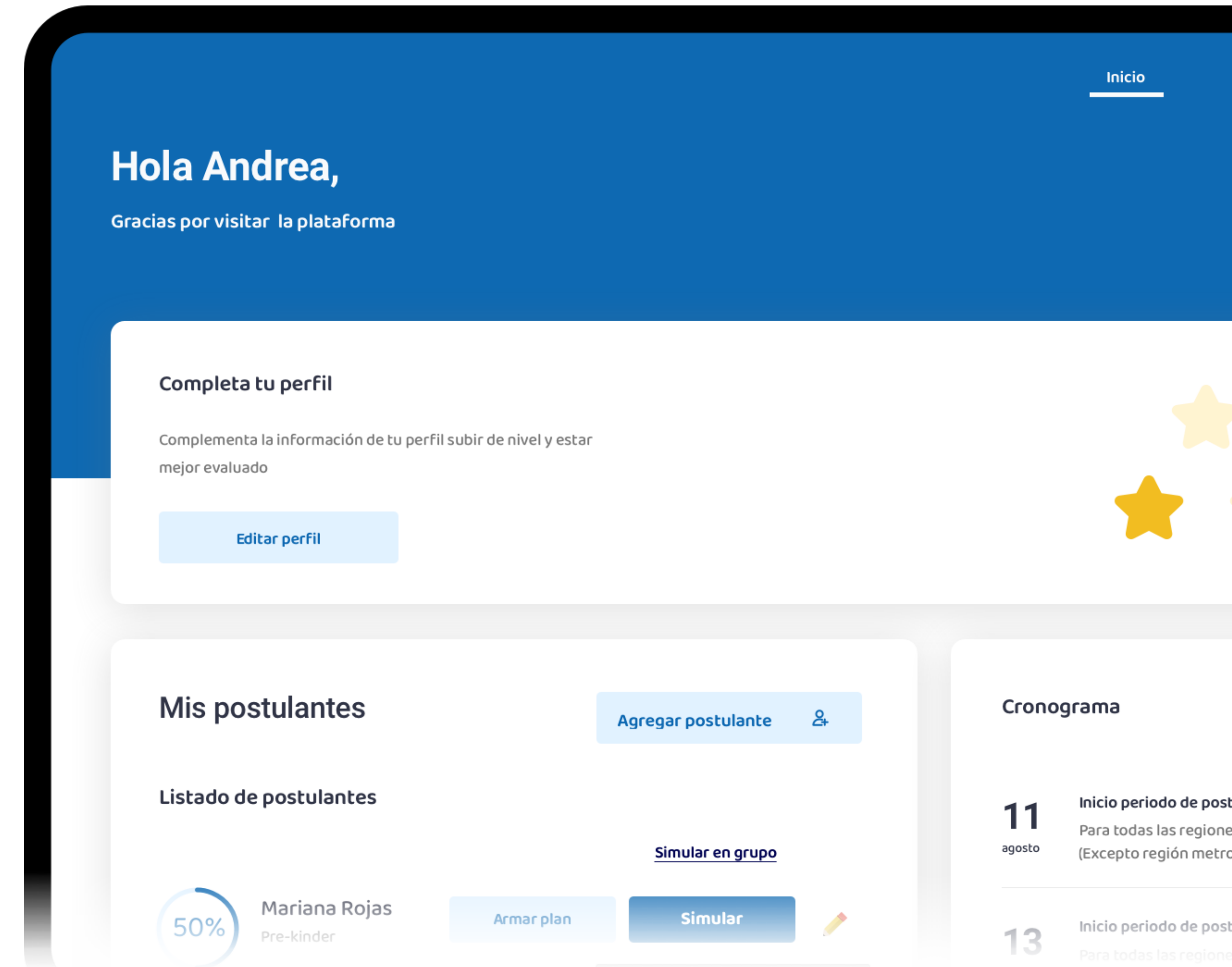
- ✓ Implemented to be used with AB testing
- ✓ Same highlights as New Haven's project

BUSINESS HIGHLIGHTS

- ✓ With the success of New Haven's system, the fact that we developed it, allowed another government to implement it in record time.

REACT

C



WEB APP

Ihunt: Software to transform talent recruitment in a marketplace

Software used to allow regular people to recommend others for job applications. It lets people recommend others, let them do the tests and online forms to apply and give's them part of the payment if they get recruited. Was built and given in a turn-key manner for a third company to operate it.

TECHNICAL HIGHLIGHTS

- ✓ Candidates scoring using LinkedIn data and human (hunters) inputs

BUSINESS HIGHLIGHTS

- ✓ The headhunter managed to increase the so-called "long list" filtered candidates by 300% by allowing the hunters and normal people to direct the right candidates to the system with the incentive of a payment.

SOCIALAUTH

JINJA 2

PYTHON DJANGO

iHunt

Cómo Funciona
Todo lo que necesitas saber

Quiero ser iHunter
Recomienda profesionales y gana dinero

Soy Empl
Regístrate y

QUIERO SER iHunter

"Es cada vez más común que me pidan recomendar profesionales de mi área de experiencia...
¿Por qué no ganar dinero por esas recomendaciones?"



Por qué debes ser un iHunter.



Recibes Ofertas
solo de tu área
profesional.

Tú decides qué oferta te
interesa y en cuántas de ellas
quieres participar
recomendando Candidatos.



Todo el proceso
puedes hacerlo
100% online.

Nuestra tecnología hace fácil y
simple el proceso de
recomendación de Candidatos.



Puede
atraer
recomp
din

Muy atractivas. L
en lista corta al
importante ap
mer

¡Prueba iHunt!

Gana dinero recomendando profesionales que conoces a trabajos interesantes

WEB

New Haven's public schools simulation and matching system

Requested by an Ivy league University

Web application for the simulation of applications to public schools in New Haven, Connecticut. It offers simulation and manages the matching between the schools and every child based on New Haven's government policies.

TECHNICAL HIGHLIGHTS

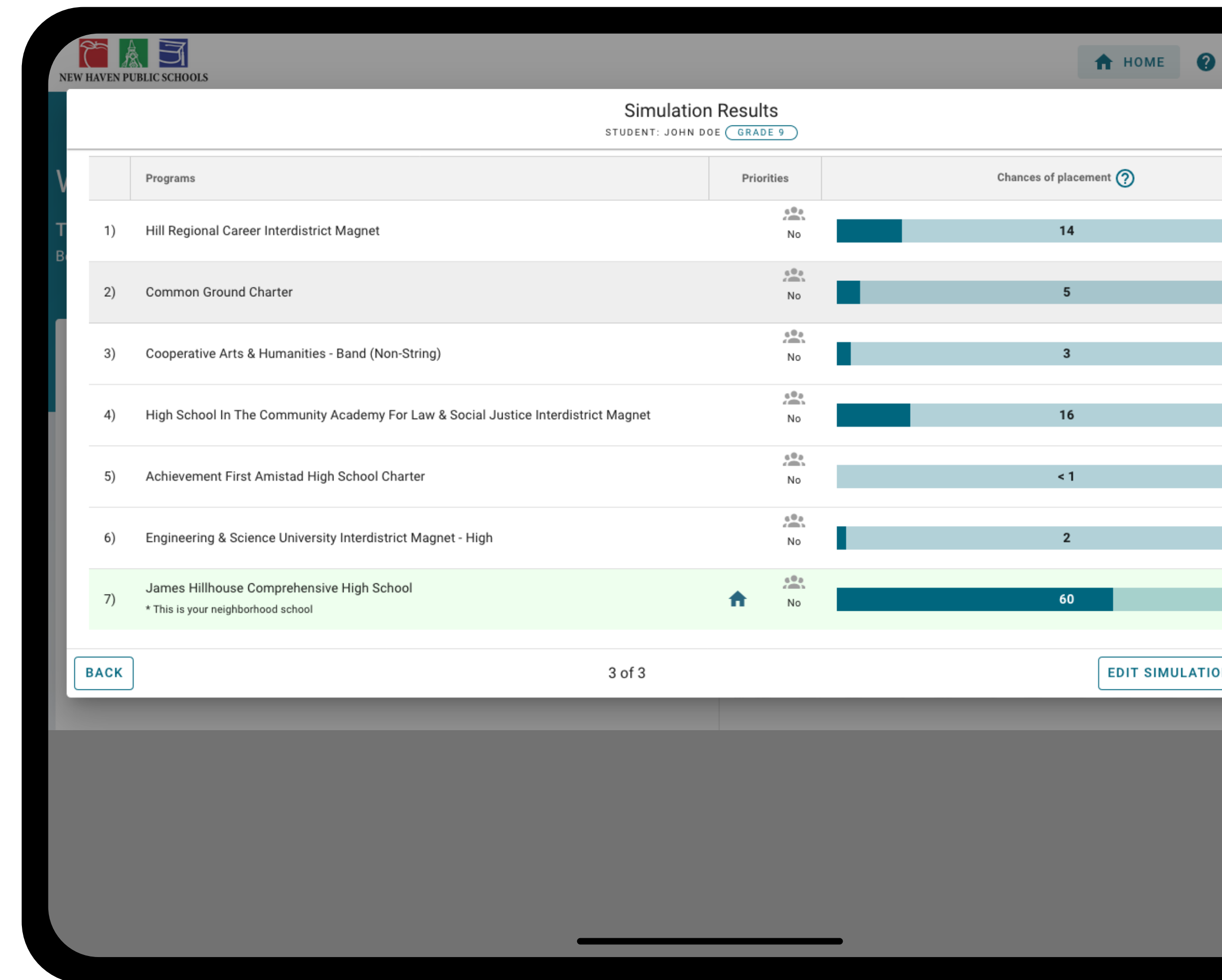
- ✓ Integration with the city's Active Directory
- ✓ The data is captured, classified and stored in an ordered manner because one of the final goals of this is the research using the data

BUSINESS HIGHLIGHTS

- ✓ It's the implementation of city-wide policies for a novel matching system adopted by all public schools. The success of this system made it to be adopted by the Chilean Government as a proof of concept (also developed by TDC)

VUE/VUEX

DJANGO REST FRAMEWORK



WEB APP

Software suite for mortgage origination

(from simulation to contract signing)

Software suit made for ASICOM Chile, a company that has developed software for financial institutions for over 40 years. It includes the same Workflow software previously described plus a simulation module for executives and one for public internet access. Everything is managed from a general dashboard where the processes for all the mortgages are controlled. Served temporarily by TDC, will be deployed and served at ASICOM's infrastructure.

TECHNICAL HIGHLIGHTS

- ✓ Highly abstract to model processes in various business scenarios
- ✓ Integration between many medium to big Software pieces (Simulator, Workflow, DOD, etc...)

BUSINESS HIGHLIGHTS

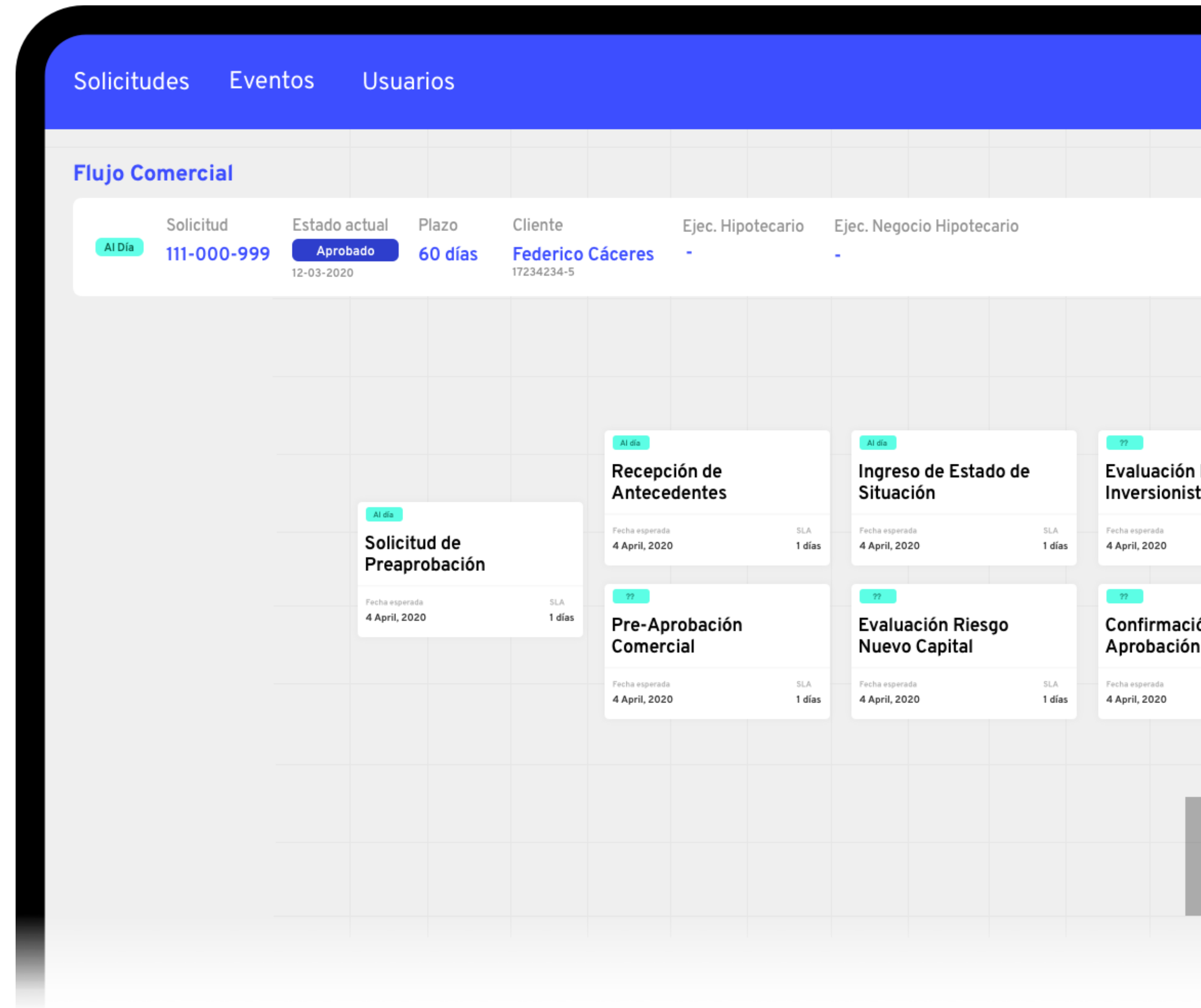
It is already being used as the whole software suite of a new financial company so the Business insight is literally that it allows the operations of the entire firm. They wanted to start from the beginning full digital and this software was chosen for it. We can't talk about an increment of sales nor anything since the company is new, but we can say that they started the first day operating at full speed since the tools are 100% digital.

DJANGO / DJANGO DRF

RABBIT MQ / CELERY

REACT

DOCKER



WEB APP

A white-labeled platform for factoring and speed payment used by Eloy SA

This platform allows Eloy to give to the companies they buy invoices from a dashboard where they can offer invoices that they need to sell. The platform corroborates the information of the invoices automatically with the Chilean Taxes Institution (SII) thanks to the e-invoicing used in the country, sorts the invoices, evaluates risk, and offers it to investors who log in a different dashboard where they can select the invoices they want to invest in. The platform then automatically transfers the ownership of the invoice to the investor, again using the e-invoice technology adopted by Chile. The software is served by TDC and exploited 50/50 with Eloy.

TECHNICAL HIGHLIGHTS

- ✓ NLP : BERT for the natural language processing of the Invoices
- ✓ It's a Heavy Users software (Critical mission Software)

BUSINESS HIGHLIGHTS

- ✓ Served as a major first step in the digital transformation of the company (Eloy) and as their first digital tool to trade invoices, speeding up the whole sale's process from days to minutes.

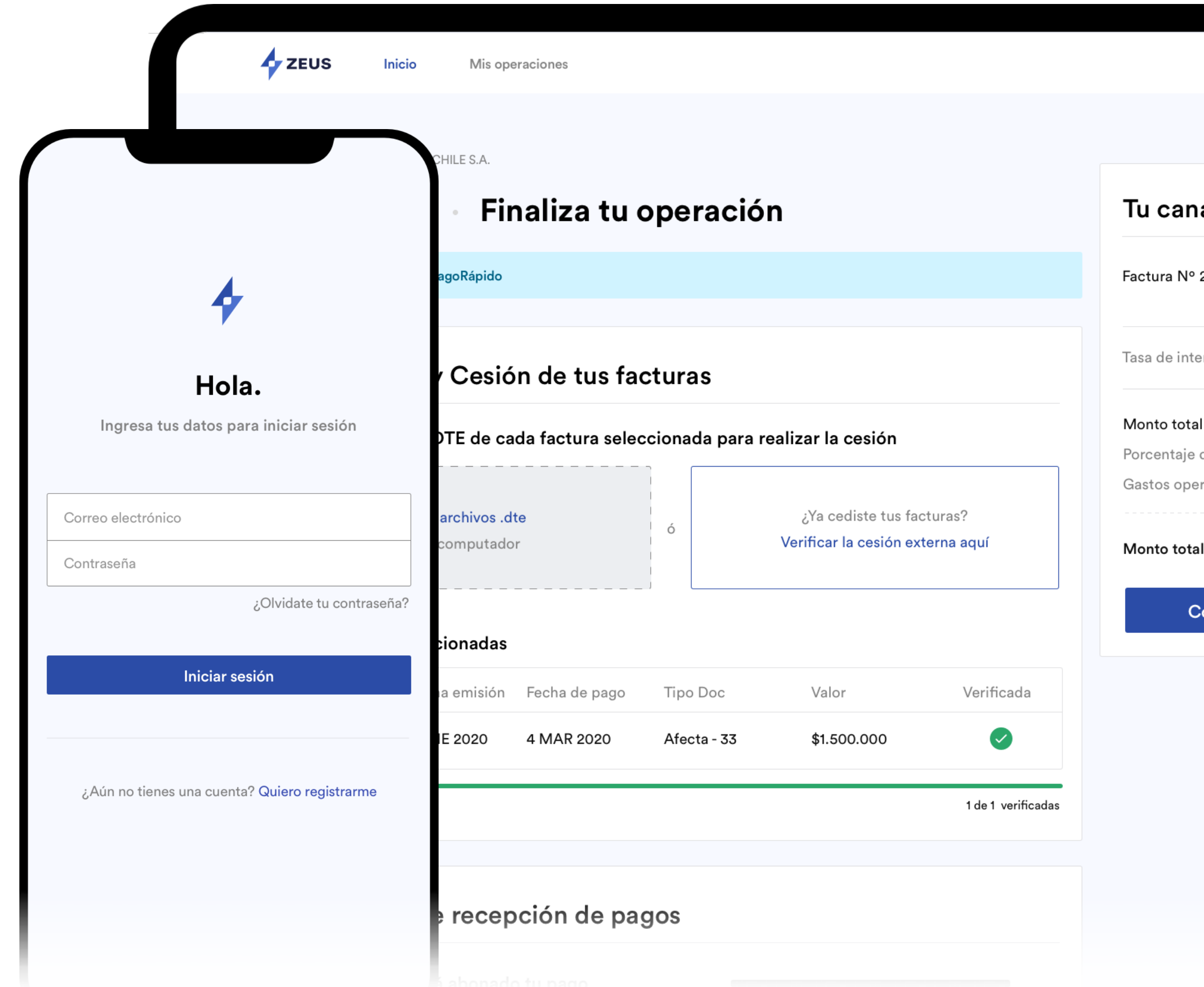
GRAPHENE (GRAPHQL)

DJANGO

HYPERLEDGER FABRIC BLOCKCHAIN (SCHEDULED IN A FUTURE VERSION)

C++

REACT



API

Scheduler for New York's public schools (concept)

By using advanced modeling techniques, we produced a concept to assign rooms, teachers, alumni, and materials, for the different classes under VERY flexible constraints that could even change in time.

TECHNICAL HIGHLIGHTS

- ✓ Modeled to fit all the constrains given by the Government
- ✓ Different heuristics implemented to solve the different parts of the problem in the same software
- ✓ Massive parallelization to find the optimal solution in a time-frame adequate to the situation (quite fast to be honest)

BUSINESS HIGHLIGHTS

- ✓ This was our first project for a governmental institution in the USA.



PYTHON NUMBA

API

Document Oriented Database

Obtention, processing, and storing of publicly available governmental documents by using scrapping, OCR for scanned documents, and generating a complete Document Oriented Database with the documents and the metadata generated. Software is stored and served by TDC for an important transnational Bank.

TECHNICAL HIGHLIGHTS

- ✔ Gathering and processing of 12.000.000 documents from over 120.000 users in a few days
- ✔ Even tho the data is public, the source has many anti-scapper techniques implemented and we sorted them all succesfully

BUSINESS HIGHLIGHTS

- ✔ Originally, the bank had to search for every single document every time they needed to sue for a loan default which took days. With this DOD, we gathered all the documents (all of them are publicly available), added metadata, decoded with OCR those that were copies of a real paper and stored them in an easy to use database speeding up the process of finding a document to less than a minute. It also servers as a safe in case the public documents are lost somehow.

SERVERLESS FRAMEWORK

HEADLESS SELENIUM

DOCKER

PYTHON REQUESTS/BEAUTIFUL SOUP

AWS BATCH

API

One Time Authorization system for one of the 3 biggest Telcos in Chile (Entel)

API Service which encrypts a complete authorization and codifies it in a QR image. The QR is used to give the authorization to perform actions over phone accounts to third parties so that they can act in the name of the owner. Its a one-time authorization and, as the complete authorization is indeed in the QR itself, it's not dependant on an internet connection for its validation. The authorizations are fully customizable and so can serve in a plethora of other business situations. The code is owned by TDC and so TDC can implement it and sell it for other business cases. All the authorizations are stored in Amazon QLDB or in a private blockchain (Hyper Ledger Fabric). Served by TDC.

TECHNICAL HIGHLIGHTS

- ✓ Symmetric Algorithm to decode offline (prevention of borderline cases)
- ✓ Omnichannel
- ✓ Very low maintenance needed to retain High Availability

BUSINESS HIGHLIGHTS

- ✓ Not only this is a new and fastest experience for customers, but the fraud committed in one of the customer segments (enterprise) dropped to just 1 case in 2 years and in the other (general public) dropped by 70% and, in the cases that weren't prevented, the auditability of the system helps in the judicial actions. It has been 2 years in production with no major issues.

GO LANG PYTHON QLDB HYPER LEDGER FABRIC
C++ COUCH DB JAVA (FOR ANDROID)

One Time Password system for Entel in Perú and Chile.

A simplified version of the One Time Authorization system, this time it's not a full authorization inside a code but just a one-time password. Used in Chile and Perú to allow mobility between different Telcos. Manages all the transactions, countrywide, for portability towards Entel in both countries (Project still under development, will be served from TDC's cloud).

TECHNICAL HIGHLIGHTS

- ✓ Massively scalable systems with requirements on HA.

BUSINESS HIGHLIGHTS

- ✓ This is still under development but will allow Entel to comply with the governmental regulations for digital phone portability in Peru and in Chile, speeding considerably the time it takes for portability and increasing to some degree at least the success cases. As we can't measure yet the impact, we can't say more about it. This is compliant with the local laws and requirements and also multi-country.

■
PYTHON

QLDB

C++

COUCH DB

API

Chatbots via Whatsapp and others to assist studies about COVID and education mandated by country governments in almost every country in Latin America.

Contracted from an Ivy league University and Consilium Bots.

Design, implementation, and serving of Whatsapp based chatbots to acquire data and give information about education and COVID to different target audiences in almost every country from Mexico to the south, including Brazil. These bots have been requested by important academic institutions like the University of Princeton and Consilium Bots, and these, in turn, get the requests from the local governments. Executed by TDC completely and the data gathered given to the institutions.

TECHNICAL HIGHLIGHTS

- ✓ Flexibility to set up a lot of bot interactions, complicated rules and constraints
- ✓ MultiViews: SMS, Whatsapp, Web Based View
- ✓ There's a Django version and a Node version

BUSINESS HIGHLIGHTS

- ✓ The data gathered is 100% confidential but at least I can say we reached tens of thousands of people via whatsapp in minutes to gather the data.

NODE.JS

RDS AURORA

DOCKER

DJANGO

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