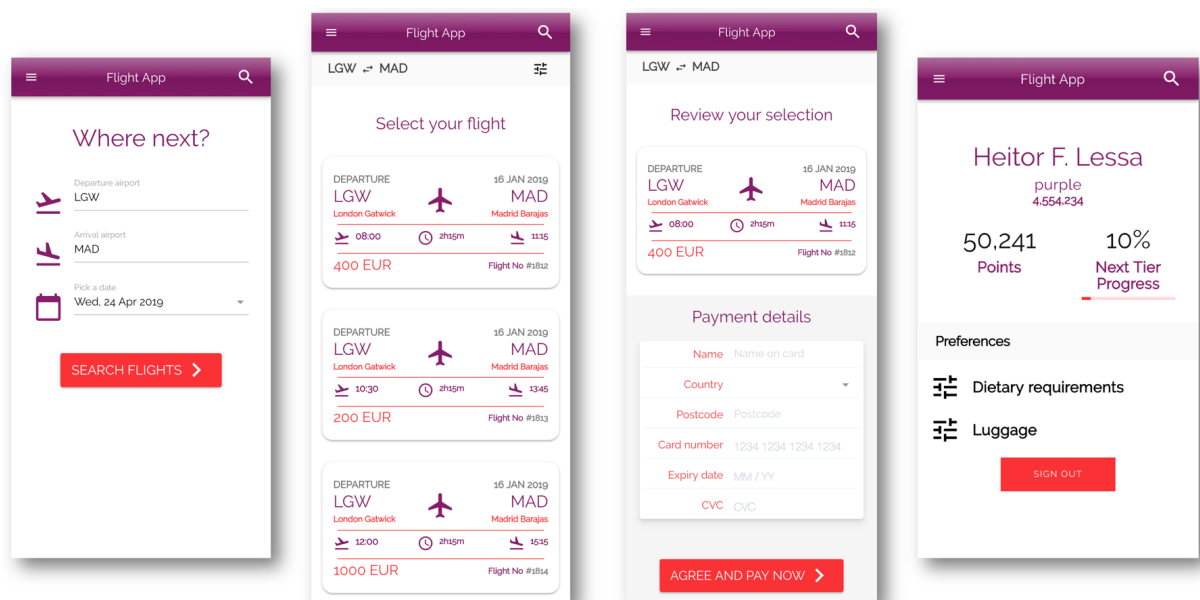

AWS Serverless Airline Booking

Serverless Airline Booking is a complete web application that provides Flight Search, Payment, Booking and Loyalty points including end-to-end testing, GraphQL and CI/CD. This web application was the theme of Build on Serverless Season 2 on AWS Twitch running from April 24th until August 7th - Check out Twitch branch for the list of 14 episodes.

For more up-to-date information on what's being implemented, take a look at our current Boards.

Note

This project is no longer being worked on. This branch repo only serves to give inspiration to others as a point in time reference, you can see the former code by viewing the [archive](#) branch



Deployment

To get started with the Serverless Airline application, you can deploy into your AWS Account by following our Get Started instructions

Stack

Summary of what the stack looks like now including a picture with the core tech:

- **Front-end** - Vue.js as the core framework, Quasar for UI, Amplify for Auth UI component and AWS integration, and Stripe JS with Stripe Elements for card tokenization, validation, etc.

- **Data** - All data is modeled after GraphQL types and stored in DynamoDB. Python being the core language for all services except Loyalty that's written in Typescript, and JavaScript for front-end.
- **API** - GraphQL is managed by AppSync and also acts as an API Hub to interact with other services. Loyalty implements a REST API to demonstrate how to secure service-to-service communication while maintaining a public endpoint. Payment API is also based on REST to demonstrate an external payment provider.
- **Auth** - Cognito provides JSON Web Tokens (JWT) and along with AppSync fine-grained authorization on what data types users can access.
- **Messaging** - Booking workflow is managed by Step Functions while SNS provides service-to-service communication through messaging between Booking and Loyalty.

UI/UX



Data/Lang



API/Auth



Messaging



Back-end

Back-end services that makes up the Serverless Airline functionalities as of now:

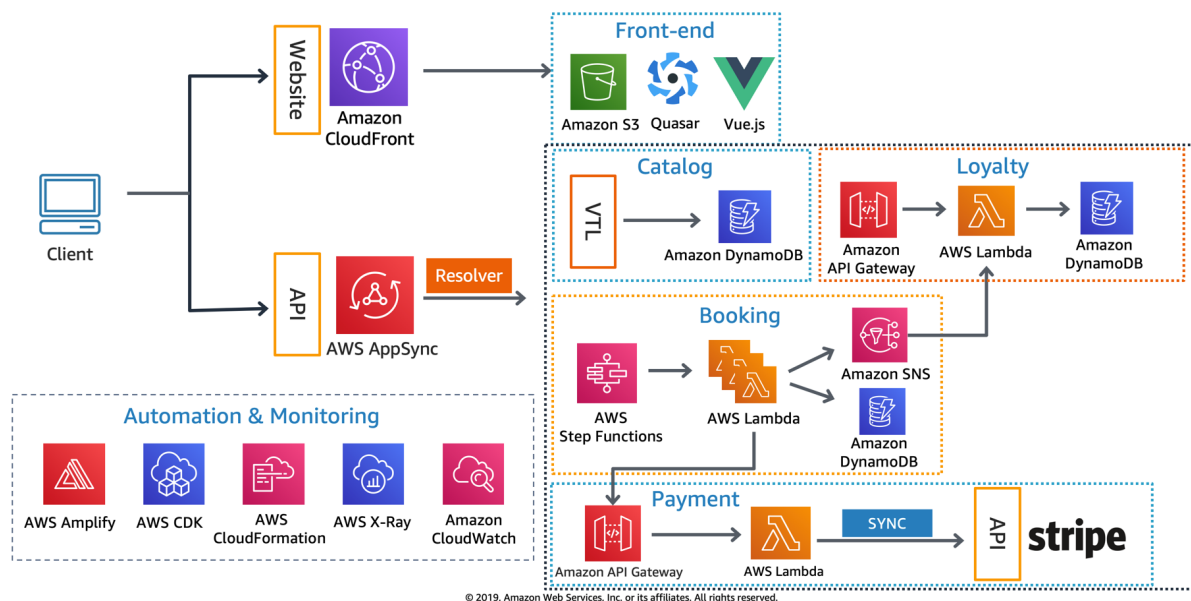
Service	Language	Description
Catalog	Apache VTL	Provides Flight search. CRUD operations including custom indexes are auto-generated by Amplify

Service	Language	Description
Booking	Python and Apache VTL	Provides new and list Bookings. CRUD operations including custom indexes are auto-generated by Amplify. Business workflow is implemented in Python.
Payment	YAML and Python	Provides payment authorization, collection and refund. Bulk of Payment integration with Stripe is done via a Serverless Application Repository App. Payment collection and refund operations within Booking business workflow are in Python
Loyalty	Typescript	Provides Loyalty points for customers including tiers. Fetching and ingesting Loyalty points are implemented in Typescript.

Front-end

See more information about our Front-end, components, routing and convention

High level infrastructure architecture



License Summary

This sample code is made available under the MIT-0 license. See the LICENSE file.