Coding Challenge

Backend Software Engineer

Here's the challenge:

Emails are sent out through Mandrill (https://mandrillapp.com). Once they are out, Mandrill sends various events back (open, clicked, etc). We want to listen to those events and capture them for later usage. We also want to notify some user interface in real time about those events from Mandrill.

API docs for Mandrill:

https://mandrill.zendesk.com/hc/en-us/articles/205583307-Message-Event-Webhook-formati

What we expect from challenge in ideal:

Backend application that listens to events and process them

Flow

- Mandrill sends event [open] to backend app webhook
- Backend stores message payload into storage of some kind (cache/sql/nosql or any other, no schema definition required). Mandrill's message ID can be used as a key
- Backend publishes notification that user opened email via websocket to very simple index.html frontend with websocket client (https://developer.mozilla.org/en-US/docs/Web/API/WebSocket)

Requirements

- Python 3.10+ as a backend language (preferably)
- Any backend framework that supports websockets
- Some sort of repo or zip of everything, whatever is easiest

Notes to candidate

We are always open for questions. It's fine to say that something you don't know, or if you are executing a challenge in something you do, as long as we can understand the thought process behind it. We will be looking on how the code structure is, potentially see which patterns/abstractions were used and how you think about implementing and ensuring quality.