Creating a microservice app with Shuttle

… well, how to guard access with JWTs

About me

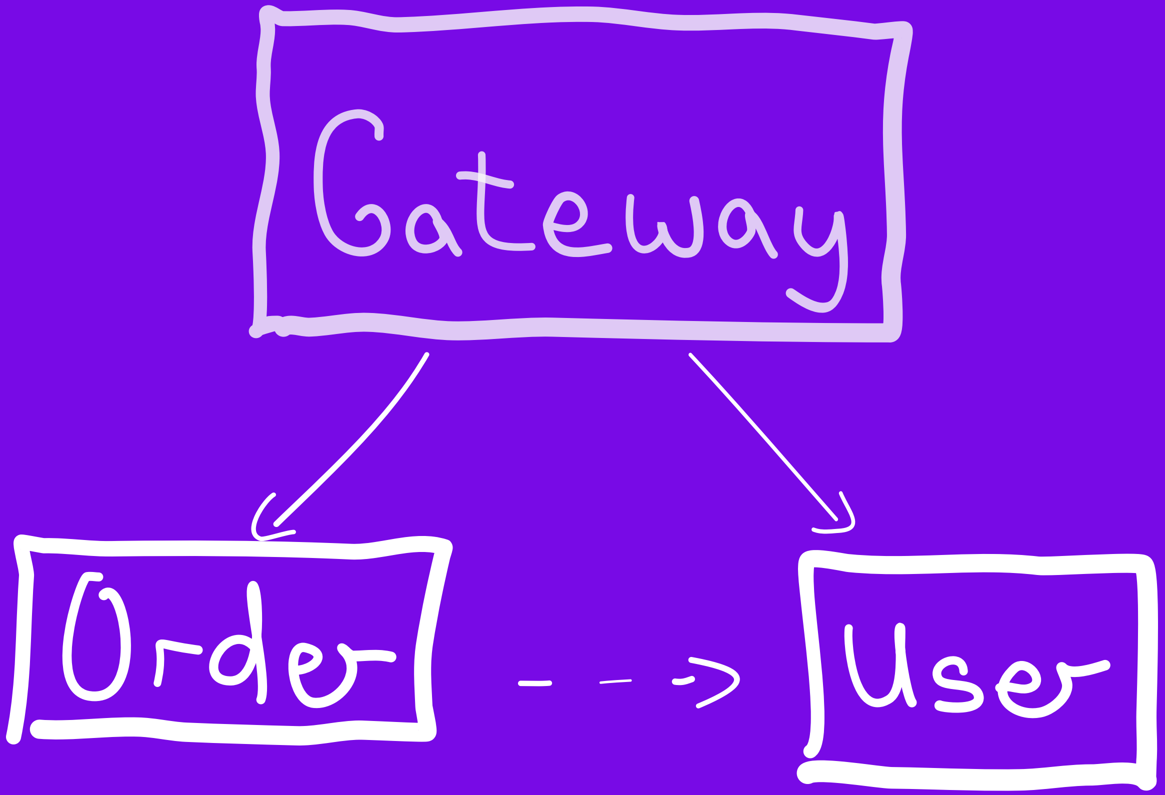
- Pieter Engelbrecht
- But known as **chesedo** on online forums
- Tech lead at **Shuttle**

Layout

Interactive tutorial

Interleave theory

Ask questions at any time



- Gateway
  - /order -> Order service
  - /user -> User service

What is a JWT anyway?

Is used for authorization

JSON Web Token is made up of 3 parts:

1. Header
2. Payload
3. Signature (base64(header) . base64(payload))

Header

```
{
  "alg": "HS256",
  "typ": "JWT"
}
```

Payload

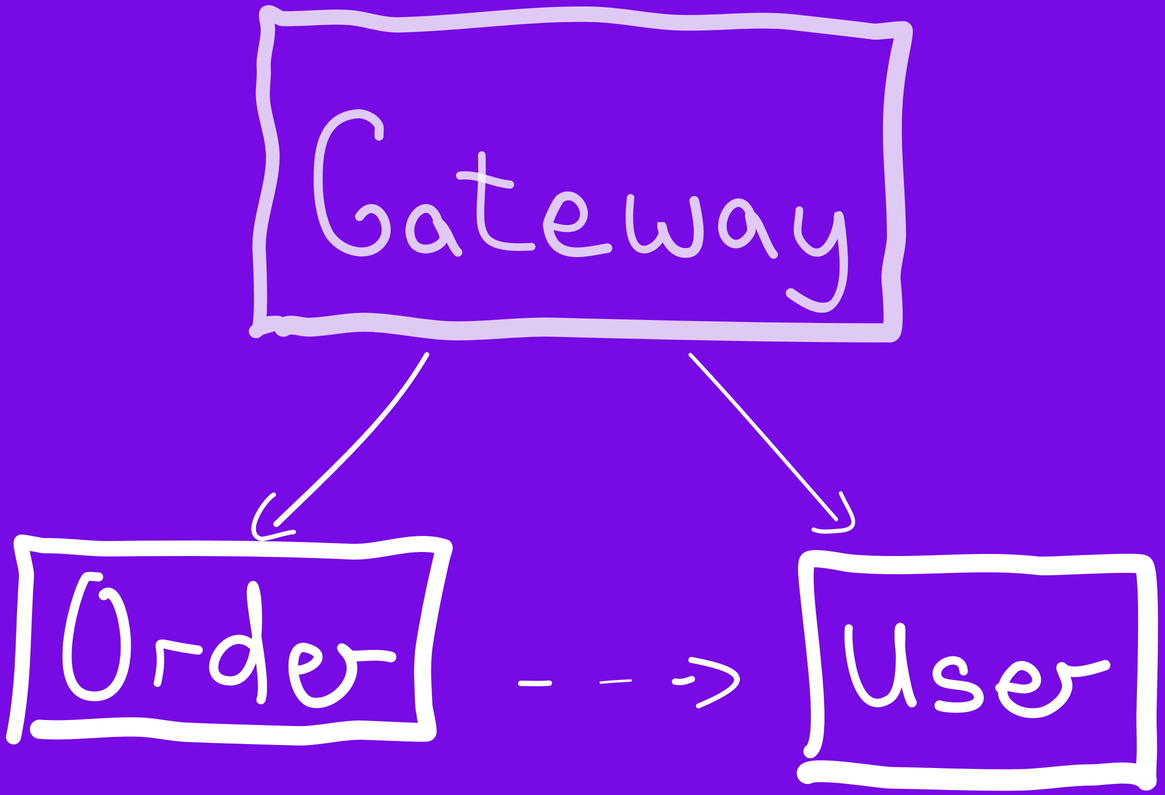
```
{
  "sub": "1234567890",
  "name": "John Doe",
  "iat": 1516239022
}
```

Signature

eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwib
mFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ =>
XbPfbIHMI6arZ3Y922BhjWgQzWXcXNrz0ogtVhfEd2o

Payload fields

- Registered (RFC 7519)
  - iss = Issuer
  - sub = Subject
  - aud = Audience
  - exp = Expiration Time
  - nbf = Not Before
  - iat = Issued At
  - jti = JWT ID
- Public
- Private



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Best practices

Keep the payload compact

Short expiry

Don't have sensitive information in the payload

Don't send the token in the request params

Not ideal for session management

Questions?