
Building RESTful web services with Connexion

AMIL OSMANLI

Software Engineer @Zalando Ireland

amil.osmanli@zalando.ie

[@aosmanli](#)



Agenda

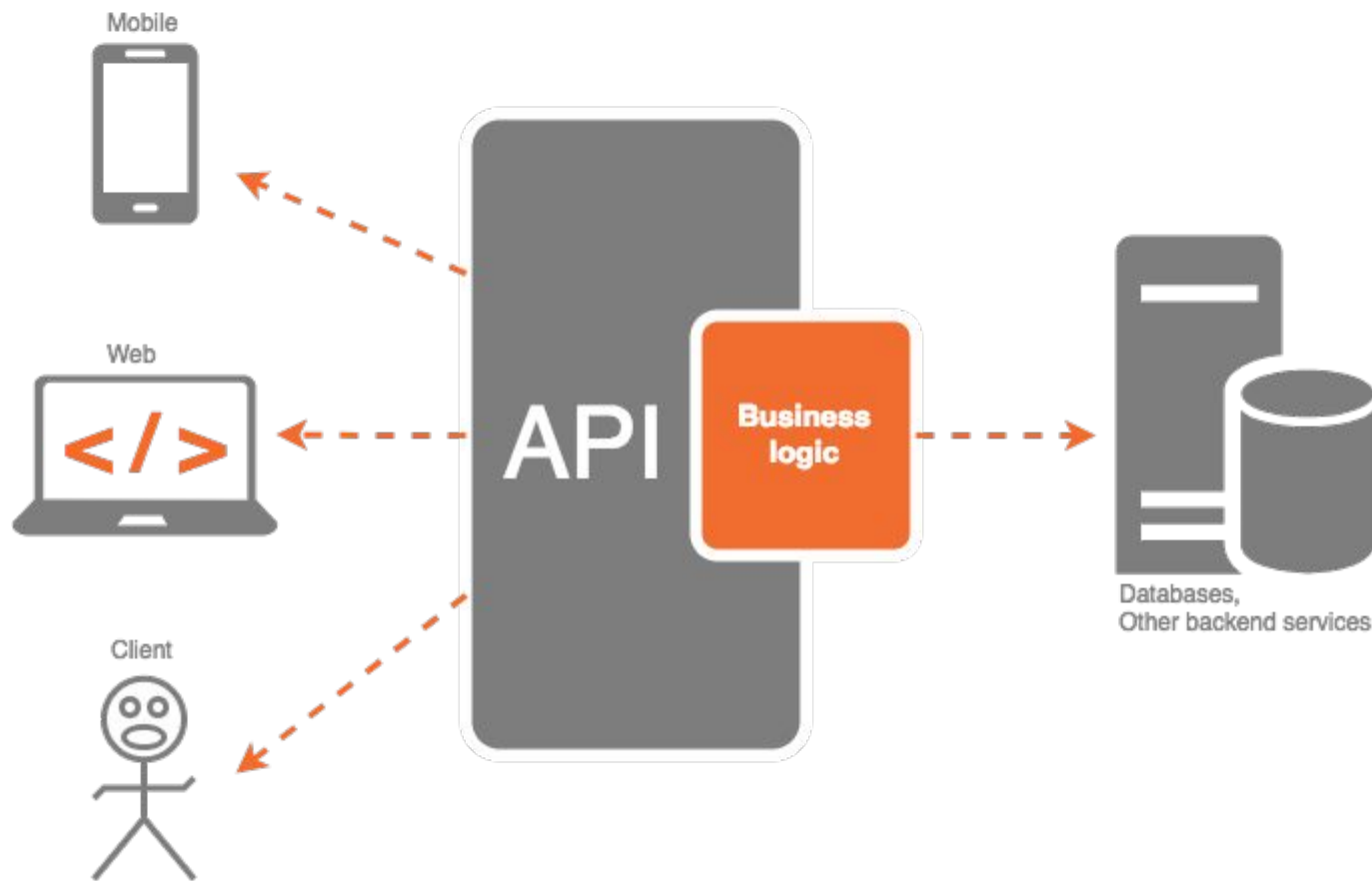
- RESTful Web Services
 - OpenAPI Specification
 - Connexion by Zalando
 - Setup
 - Building recommender system with REST API
-

—

REST

What is REST?

- Software architecture
 - Resource based
 - Communication over HTTP
 - Introduced by Roy Fielding in 2000
-



REST Guidelines

- Resources are nouns

Collection: /pets

Resource: /pets/**charlie**

- CRUD operations with HTTP
 - Create with POST
 - Read with GET
 - Update with PATCH or PUT
 - Delete with DELETE
-

-
- Relationships with URIs

`/owners/john/pets`

- Filter with query parameters

`/pets?type=dogs&color=black`

- Actions may become resources

`/pets/charlie/feed`

`/search?q=datafest&type=post`

API FIRST DEVELOPMENT

-
- API must be designed first
 - Decoupled from the implementation
 - Robust and Easy to use
 - Consistent
 - API design, documentation and code must remain in sync
 - We use OpenAPI 2.0 (f.k.a Swagger)
 - Common Language
 - Human/Machine Friendly
 - Swagger™ is a project used to describe and document RESTful APIs.
 - Design in YAML before code
 - Visualize entire API
 - Share, collaborate and iterate
-

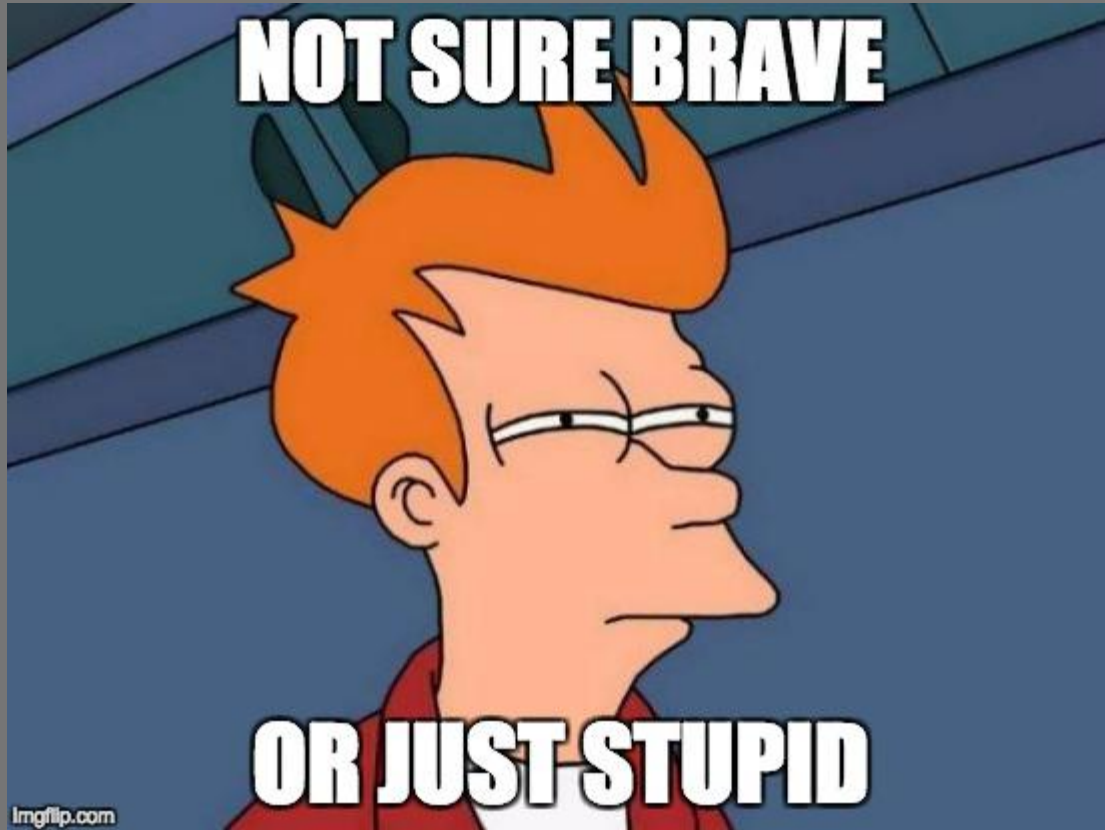
Connexion by Zalando

Main feature and benefits

- Automatic routing
 - Request and Response Validation
 - Automatic Serialization
 - Type Casting
 - OAuth2
 - OpenAPI Ecosystem
 - No boilerplate code
-

—

DEMO



—

Setup

-
-
- Grab starter files

/////github link

- `pip install -r requirements.txt`
 -
-

Questions
