REST APIs in Python
an Introduction

Github Link

Joe Sacher
Sacher Solutions, LLC
Feb 2019

REST

- Stateless (REpresentational State Transfer)

- Uniform Interface
  - Resource Based
  - Representations
  - Self Descriptive

- Cacheable

- Client - Server

- Layered System
  - Load Balancing and Security

- Code on Demand (Optional)

REST

- Usually HTTP(S), but not required

- HTTP Verbs
  - POST   CREATE
  - GET   READ
  - PUT   UPDATE
  - DELETE   DELETE

- BODY

- URI for Resource
  - https:// server / api / v1 / meetings

- Security
  - Not included in demo

Our Resource

- IndyPy Meeting
  - meeting_date: str YYYY-MM-DD (PK)
  - theme: str
  - pbj_topic: str
  - right_brain_topic: str
  - pro_talk_topic: str

- URI /meetings

- SQLAlchemy with in memory SQLite

- Flask and flask-restful

GET

- /meetings
  - List of meeting dicts
  - No pagination
- /meetings/2019-02-12
  - Individual meeting dict

POST

- /meetings/2019-02-12 gives Error

- /meetings correct URI

- BODY JSON with Data

```
{
     "meeting_date": "2019-02-12",
     "theme": "Share the (Python) Love",
     "pbj_topic": "REST APIs in Python",
     "right_brain_topic": "Understand Before You Judge",
     "pro_topic": "Integrating Python with AWS",
}
```

PUT

- /meetings gives Error (No Resource)

- /meetings/2019-02-12

- BODY JSON with Updates

```
{
    "meeting_date": "2019-02-12",
    "theme": "Share the (Python) Love",
    "pbj_topic": "REST APIs in Python",
    "right_brain_topic": "Understand Before You Judge",
    "pro_topic": "Integrating Python with AWS",
}
```

DELETE

- /meetings
  - Delete all meetings?!?
  - Probably not a good idea to support
- /meetings/2019-02-12
  - Delete meeting if found

Python Code

https:// github.com / sacherjj / rest_intro_presentation