API Workshop

CFG @SagePay

preliminary date: 14.09.2018

Learning Outcome
- Understand APIs in Web-Architecture, their uses & design
- Apply knowledge in challenges

Agenda
- 9.30: Welcome
- 9:45 - 11:30/12.00: First session: Intro, Basics & First challenge (~2h)
- 12:00 - 13:00: Brown Bag lunch from Sage Pay (how we develop APIs) (1h)
- 13:00 - 17:00: Second Session: Afternoon challenge (5h)

Prerequisites:
- HTML, CSS & JS (having completed CFG intro course)
- Technology installed: Github, [Postman](#), Chrome, Atom
- Using own laptop

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- Instructors: 2 (Rabea, Marisa)
- Assistants: 4+
- Participants: 15-20
  - CFG alumni
  - Interested people @ Angel Office

Curriculum Details
- ❏ Intro & Setup
- ❏ What is an API
- ❏ Web-Architecture (Client-Server)
- ❏ HTTP (Request Methods: GET, POST etc., Response codes)
- ❏ URL explained
- ❏ URI, URN & URL
- ❏ Web Applications vs Web Services
- ❏ API Backend Design: Web Services (RESTful, SOAP)
- ❏ Data Formats (JSON, XML)
- ❏ API Security: Keys
- ❏ Documentation (Swagger)
- ❏ Best/ Worst Practices > Brown Bag Lunch Lunch

Morning challenges:
- [Intro slide deck](#) contains examples
- Familiarisation with tools: Postman, HTTP calls (applying basic concepts), Github (poll user data)
- Mini challenge (e.g. polling weather app)

Afternoon challenge:
- Options:
  - Build a Mood playlist with Spotify API: https://developer.spotify.com/documentation/web-api/
  - Build a Restaurant Guide with Foursquare API: https://developer.foursquare.com/docs
  - Twitter: https://developer.twitter.com/en/docs.html
  - Build your own TFL Journey Planner with TFL API: https://tfl.gov.uk/info-for/open-data-users/unified-api?intcmp=29422#on-this-page-2
  - Other open APIs: https://apilist.fun/ (Youtube, OpenGithub…)