Effective Testing with API Simulation and (Micro)Service Virtualisation

Module One: Setup and Installation

A GitHub account is required in order for us to give you access to our git repository. Please email your GitHub username to andrew.morgan@specto.io in order for us to allow you clone it. The repository is at git@github.com:SpectoLabs/api-simulation-training.git

Setup Instructions

Currently the course requires either Linux or a Mac. **We aren't going to support Windows**, so if you have a Windows machine we would recommend running Linux in VirtualBox. Once you have this, the following is required:

1. A Terminal running Bash. If you're on a Mac, iTerm is a good option which can be found here.
2. A Text Editor. We use Atom in all our examples, which can downloaded here.
3. Hoverfly, for which installation instructions can be found here.
4. We also use JQ to more easily format JSON in the terminal, which can be found here.
5. For some middleware exercises we will use Python. If it's not already on your machine, download it here.
6. Java is required to executed some jar files. It's found here.
7. Git, in order to be able to clone the repository which can be found here. git@github.com:SpectoLabs/api-simulation-training.git

Course Abstract

Testing microservices is challenging. Dividing a system into components naturally creates inter-service dependencies, and each service has its own performance and fault-tolerance characteristics that need to be validated during development and the QA process. Join this one day workshop and learn the theory, techniques and practices needed to overcome this challenge.

- Introduction to the challenges of testing distributed microservice systems
- Breaking the reliance on dependent services and APIs
- A practical guide to API simulation
- Isolating tests within a large microservice ecosystem
- Implementing fault-injection testing to validate non-functional requirements
- The use of API simulation for testing work undertaken during dev/ops, legacy system and cloud migration, and high-volume load testing

Course Outline

This course will be divided into multiple modules. Generally, each module contains:

- Presentations
- Live Demos
- Practical Exercises
- Group discussions and whiteboarding sessions

Questions

Any questions, please email andrew.morgan@specto.io or daniel.bryant@specto.io