

Effective Testing with API Simulation and (Micro)Service Virtualisation

Module One: Setup and Installation

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. You will need to install the following dependencies

We have also created an image with everything already installed [here](#) (sudo password is "spectolabs"):

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 be 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 or NodeJS. If they are not already on your machine, download them [here](#) and [here](#).
6. Java is required to execute some jar files. It's found [here](#).
7. Git, in order to be able to clone the repository which can be found [here](#).

Once you are ready, you can clone the repository (It will not be made public until the morning of the workshop)

`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