**SOA Exercise Guide - 2017**

**VMWare VM location: <https://s3-eu-west-1.amazonaws.com/ox-soa2-2017/oxsoa2017-v2.zip>**

**VM User/Password:** *oxsoa/oxsoa*

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| Exercise | Description and PDF link |  |
| 1 | Simple HTTP JSON Server in node.js | <http://freo.me/1ttW4em> |
| 2 | Simple HTTP JSON Client in Python | <http://freo.me/1UQR8ph> |
| 3 | Understanding SOAP – calling a SOAP service with SOAP UI | <http://freo.me/1UQRooh> |
| 4 | Creating a SOAP service from an existing Java bean | <http://freo.me/1UQRGeS> |
| 5 | Generating a Java client from a WSDL | <http://freo.me/1UQRaO8> |
| 6a | Creating a RESTful API in Java – framework | <http://freo.me/1UQQQim> |
| 6b | The Richardson Maturity Model – making our Java API RESTful | <http://freo.me/1UQSCzZ> |
| 7 | Creating a Microservice – UberJAR packaging | <http://freo.me/1UQRsEv> |
| 7b | Using Swagger to describe services | <https://freo.me/2qPLVqT> |
| 7c | Performance testing HTTP with Siege | <https://freo.me/2qPqqpS> |
| 8 | Getting started with Docker | <http://freo.me/1UQR0pY> |
| 9 | Creating a Dockerised Microservice | <http://freo.me/1UQRvQU> |
| 10 | Using an ESB to mediate between SOAP and REST | <http://freo.me/1UQRKve> |
| 11a | Using SSL server and client certificates to secure communications | <http://freo.me/1WMyN38> |
| 11b | Using OAuth2 with the WSO2 Identity Server to authenticate and authorize access | <http://freo.me/1WMzgSV> |
| 12 | API Management | <http://freo.me/1UQSmAW> |
| 13 | Building a BPMN process | <http://freo.me/1UQRv3k> |
| 14 | MQTT wire tap and Mongo | <https://freo.me/2qPEboH> |
| Bonus | Creating a RESTful data service with Express and MongoDB | <http://freo.me/1UQSgth> |

***Quick reference***

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| Server | Offset | Directory | Admin Port / web |
| Tomcat | NA | ~/servers/tomcat | <http://localhost:8080> |
| Enterprise Service Bus | 1 | ~/servers/wso2esb-4.9.0 | <https://localhost:9444> |
| API Manager | 4 | ~/servers/wso2am-1.10.0 | <https://localhost:9447> |
| DAS | 5 | ~/servers/wso2das-3.0.1 | <https://localhost:9448> |
| BPMN / Camunda | NA | ~/servers/camunda/server/apache-tomcat-8.0.24 | <http://localhost:8080/camunda> |

**VirtualBox VM location:** <https://s3-eu-west-1.amazonaws.com/ox-soa2-2017/oxsoa2017-v2-vb.zip>   
*I have had some issues with VirtualBox with 3D acceleration on. I recommend leaving it off. Running the VM on your own machine is up to you, but if you have issues, I may not be able to solve them…*