

Lab 02 – Our first stream application

Overview

We are going to create our first streaming application

Before we start this lab, make sure that you have understood the SpringOne2020 deck presented before this lab.

Please execute the following steps:-

1. **cd scdf-workshop/labs/trucks-example**
2. We need to compile the source code and create docker images for the different parts of the application. We are going to use [Jib](#) to create the images and store them in the docker registry running on your local machine.
3. Run `mvn clean install com.google.cloud.tools:jib-maven-plugin:dockerBuild -DskipTests`
4. You should see the images being created and stored by running ***docker images***
5. We are now ready to deploy into SCDF.
6. We need to create the applications in the SCDF dashboard.

7. In the Applications tab click "Add Application(s)". Select "Import application components from properties file".

8. Paste the following coordinates in..

```
source.trucks=docker:dev.local/trucks:0.0.1-SNAPSHOT  
processor.brake-temperature=docker:dev.local/brake-temperature:0.0.1-SNAPSHOT  
sink.brake-log=docker:dev.local/brake-logs:0.0.1-SNAPSHOT
```

9. Click "Import Application(s)". You should see a message confirming that the applications have been successfully imported.

10. The next stage is to set up the stream.

11. Select stream and create a stream with the following definition.

```
truck-performance = trucks --spring.cloud.stream.function.bindings.generateTruck-out-0=output | brake-temperature --spring.cloud.stream.function.bindings.processBrakeTemperature-in-0=input --spring.cloud.stream.function.bindings.processBrakeTemperature-out-0=output | brake-log --spring.cloud.stream.function.bindings.log-in-0=input
```

12. You can copy this text from the **truck-performance-stream.txt** file.

13. Click "Create Stream".

14. You can then deploy the stream. Accept the default properties and deploy. This will initialise the stream. (If you see any errors at this point, you can go to the server console window to see what the problem is).

15. The stream is now running, and you should be able to see the logs for the "*brake-log*" sink.

16. You can also view the Grafana dashboard to see the activity taking place within the applications and the stream itself.

