



# Reactive Microservices - Spring Boot2

## Performance Harness

This is a sample Spring Boot 2 app to demonstrate the raw performance difference between a Spring Boot 2 app vs a Spring Boot 1 app.

The request/response flow of the demo is:

**ingress** = user/gatling-test > boot2-load-sample > sample-load-target

**egress** = sample-load-target > boot2-load-sample > user/gatling-test

1. Open a terminal and clone workshop demo github repo: <https://github.com/Pivotal-Field-Engineering/pace-cnd-java>
2. Change to the "boot2-load-demo" folder

```
cd ./boot2-load-demo
```

## Backing Service

```
./gradlew -p applications/sample-load-target clean bootRun
```

## Spring Boot 2 based app:

Run the Spring Boot 2 based app:

```
./gradlew -p applications/boot2-load-sample clean bootRun
```

## Call target endpoint

Assuming that [httpie](#) is installed

```
http POST 'http://localhost:8082/passthrough/messages' id="1" payload="one"
```

OR with CURL

```
curl -X "POST" "http://localhost:8082/passthrough/messages" \  
  -H "Accept: application/json" \  
  -H "Content-Type: application/json" \  
  -d '${  
    "id": "1",  
    "payload": "one",  
    "delay": "1000"  
  }'
```

## Spring Boot 1 based app:

Run the Spring Boot 1 based app:

```
./gradlew -p applications/boot1-load-sample clean bootRun
```

## Call target endpoint

Assuming that [httpie](#) is installed

```
http POST 'http://localhost:8081/passthrough/messages' id="1" payload="one"
```

OR with CURL

```
curl -X "POST" "http://localhost:8081/passthrough/messages" \  
  -H "Accept: application/json" \  
  -H "Content-Type: application/json" \  
  -d '${  
    "id": "1",  
    "payload": "one",  
    "delay": "1000"  
  }'
```

## Run Load tests

Run the following tests and each time increase SIM\_USERS and compare Gatling Reports.

Observe at some point the Spring Boot 1 apps (Tomcat) performance lags behind Spring Boot 2

(Netty) significantly.

## Against Boot 2 version of the app

```
./gradlew -p applications/load-scripts -DTARGET_URL=http://localhost:8082 -DS
```

## Against Boot 1 version of the app

```
./gradlew -p applications/load-scripts -DTARGET_URL=http://localhost:8081 -DS
```

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