Speed up writing tests with Wiremock Spring Boot

Pieter-Jan Drouillon

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Intro

What is this about?

Hello!

Pieter-Jan Drouillon

Tech Lead @ emakina.be

@pjdrouillon
www.pieterjd.be

Disclaimer

Setup

Demo: spring boot + jsonplaceholder client + unittests

Quick intro to Wiremock

Search Results

```
{
    "request": {
        "urlPath": "/search?q=mock",
        "method": "GET"
    },
    "response": {
        "status": 200,
        "body": "Here are the search results for 'mock'!",
        "headers": {
          "Content-Type": "text/plain"
        }
    }
}
```

- GET /search?q=mock
- POST /search?q=mock
- GET /search?q=hello

Prime Check

```
{
  "request": {
    "urlPath": "/isprime",
    "method": "GET",
    "queryParameters": {
      "number": {
        "matches": "[\\d]+"
      }
    }
  },
  "response": {
    "status": 200,
    "jsonBody": {
      "isPrime": true
    },
    "headers": {
      "Content-Type": "application/json"
    }
  }
}
```

- GET /isprime?number=123
- OPTIONS /isprime?number=123
- GET /isprime?number=-7
- GET /isprime

Updated tests for jsonplaceholder client

Demo

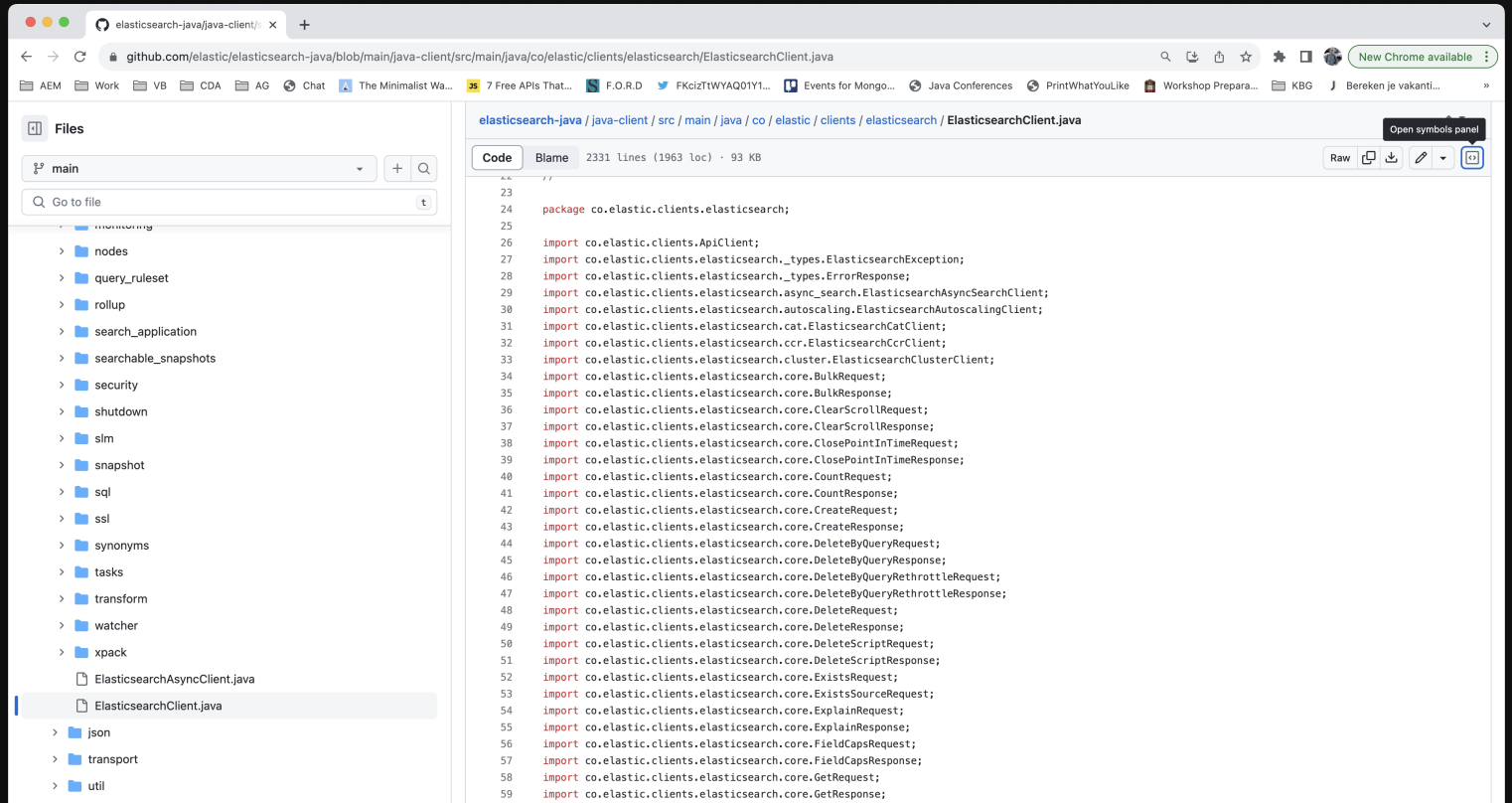
Throw in Elastic Search

Repository + Service

Issues

- Third party library
- Rest API behind the scene
- no direct access to requests and responses

check source code



Turn up log level httpclient

```
org.apache.http.wire                    : http-outgoing-0 >> "HEAD /todo HTTP/1.1[\r][\n]"
org.apache.http.wire                    : http-outgoing-0 >> "User-Agent: elastic-java/8.7.1 (Java/17.0.3)[\r][\n]"
org.apache.http.wire                    : http-outgoing-0 >> "Accept: application/vnd.elasticsearch+json; compatible-w
org.apache.http.wire                    : http-outgoing-0 >> "Content-Type: application/vnd.elasticsearch+json; compat
org.apache.http.wire                    : http-outgoing-0 >> "X-SpringDataElasticsearch-Client: imperative[\r][\n]"
org.apache.http.wire                    : http-outgoing-0 >> "X-Elastic-Client-Meta: es=8.7.1,jv=17,hl=2,t=8.7.1,hc=4.
org.apache.http.wire                    : http-outgoing-0 >> "Host: localhost:9200[\r][\n]"
org.apache.http.wire                    : http-outgoing-0 >> "Connection: Keep-Alive[\r][\n]"
org.apache.http.wire                    : http-outgoing-0 >> "[\r][\n]"
o.a.h.i.nio.client.InternalIODispatch   : http-outgoing-0 [ACTIVE] Request ready
h.i.n.c.ManagedNHttpClientConnectionImpl : http-outgoing-0 127.0.0.1:60398<->127.0.0.1:9200[ACTIVE][r:w]: Event cleared
h.i.n.c.ManagedNHttpClientConnectionImpl : http-outgoing-0 127.0.0.1:60398<->127.0.0.1:9200[ACTIVE][r:r]: 149 bytes rea
org.apache.http.wire                    : http-outgoing-0 << "HTTP/1.1 200 OK[\r][\n]"
org.apache.http.wire                    : http-outgoing-0 << "X-elastic-product: Elasticsearch[\r][\n]"
org.apache.http.wire                    : http-outgoing-0 << "content-type: application/vnd.elasticsearch+json;compati
org.apache.http.wire                    : http-outgoing-0 << "Transfer-Encoding: chunked[\r][\n]"
org.apache.http.wire                    : http-outgoing-0 << "[\r][\n]"
org.apache.http.headers                 : http-outgoing-0 << HTTP/1.1 200 OK
org.apache.http.headers                 : http-outgoing-0 << X-elastic-product: Elasticsearch
org.apache.http.headers                 : http-outgoing-0 << content-type: application/vnd.elasticsearch+json;compatib
org.apache.http.headers                 : http-outgoing-0 << Transfer-Encoding: chunked
o.a.h.i.nio.client.InternalIODispatch   : http-outgoing-0 [ACTIVE] Response received
```

Man in the middle approach

Wiremock Record modus

Demo: wiremock stand-alone in record modus

Conclusion

Take Aways

- Wiremock is great
- Wiremock Spring Boot even greater
- Check Wiremock Library
- Record mode
- Check response templating
- Check Wiremock Studio
- In case you do local development with Wiremock standalone

```
watchexec -N -w <path to your wiremock mappings> 'curl -X POST http://localhost:9999/__admin/reset;date'
```

Thanks!