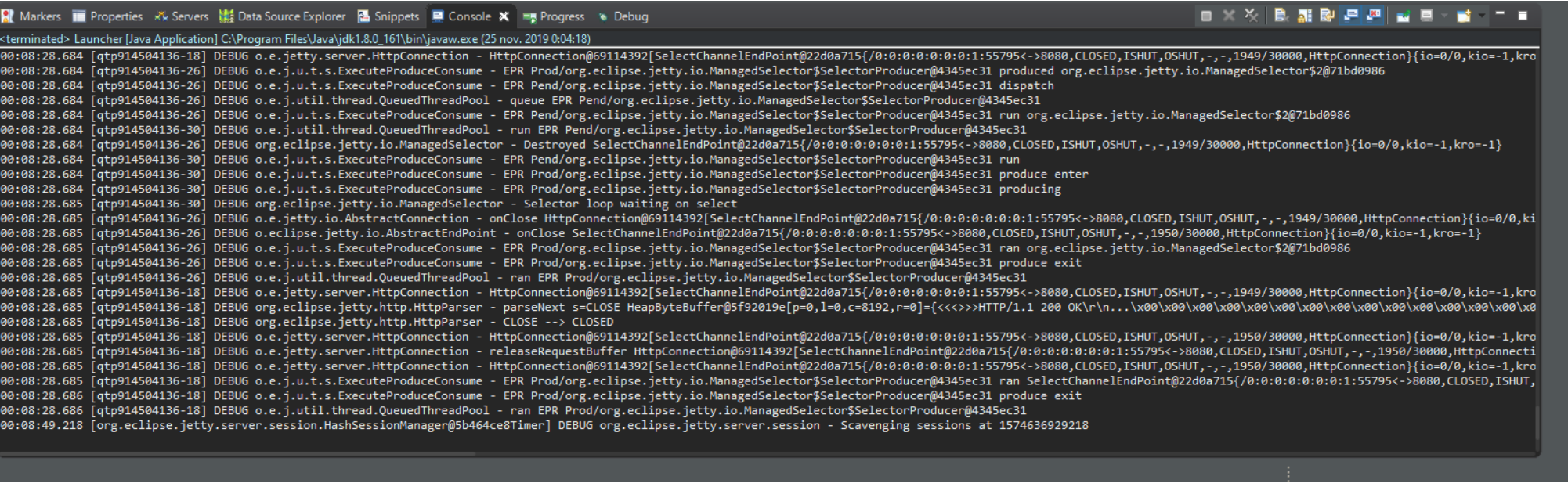


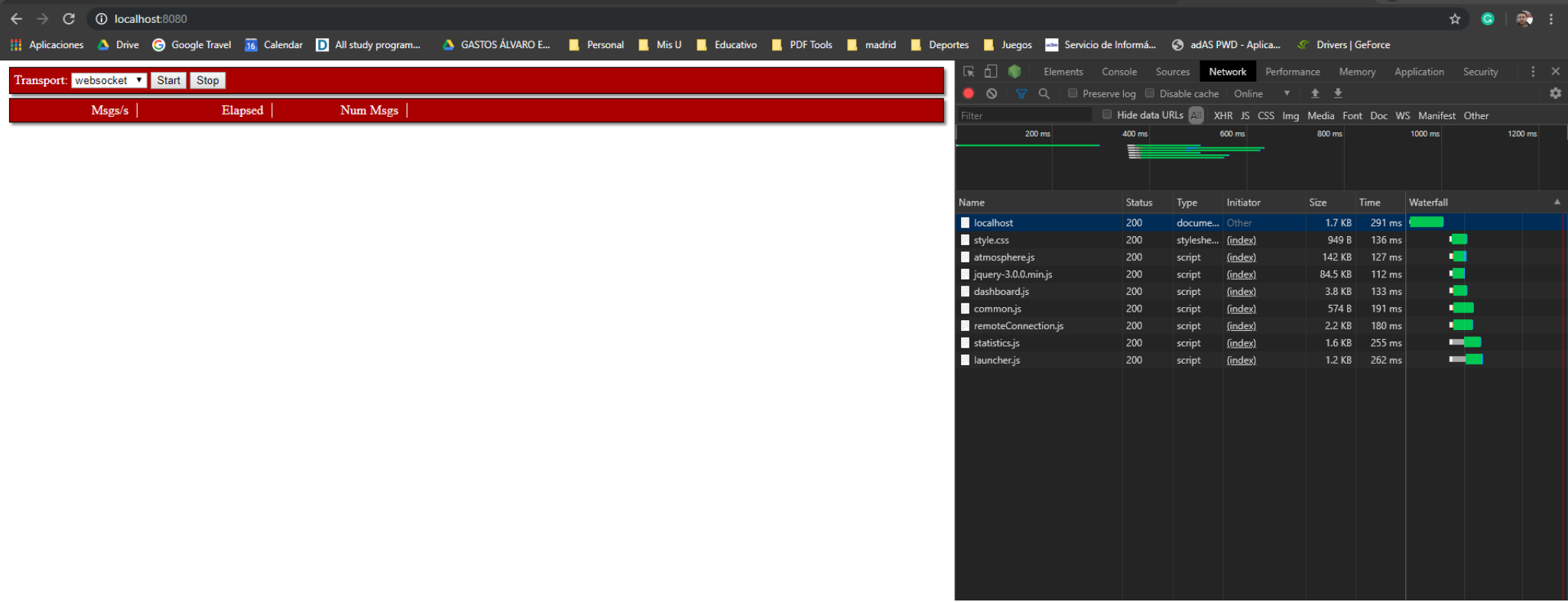
Practica 4: Mensajería de última milla

Parte 1: Servidor

A continuación, se visualiza la aplicación corriendo dentro del servidor jetty



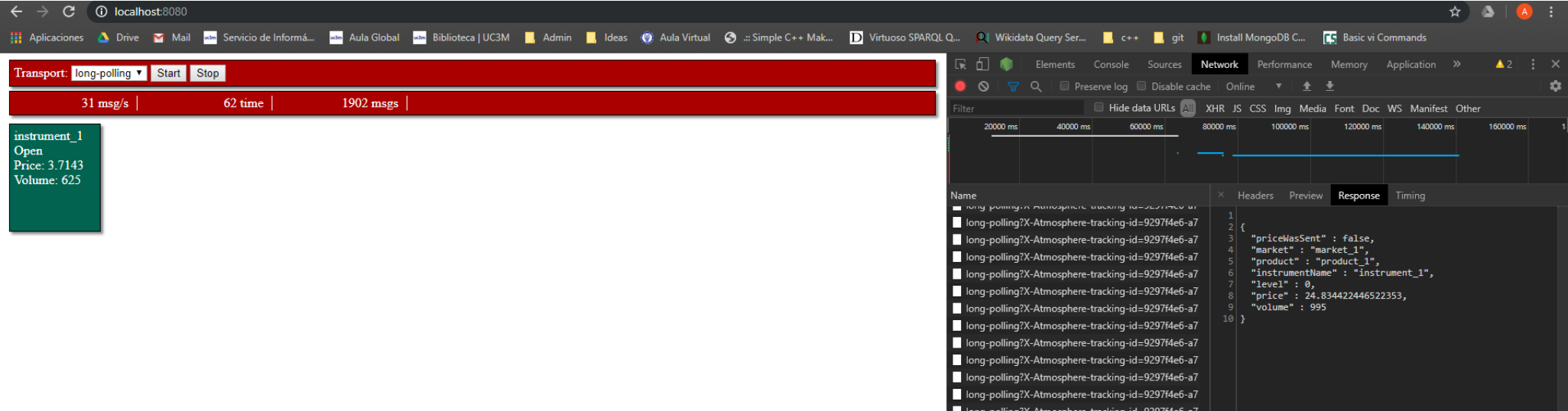
También en el navegador responde por el puerto 8080



Parte 2: Cliente

A continuación, se visualiza la aplicación corriendo cliente-servidor:

Instrumento generado desde la opción de long-polling:



Instrumento generado desde la opción de websocket:

Transport: websocket | Start | Stop

228 msg/s | 20 time | 4570 msg/s

instrument_1
Open
Price: 6.8571
Volume: 810

Elements | Console | Sources | Network | Performance | Memory | Application

XHR JS CSS Img Media Font Doc WS Manifest Other

10 ms 20 ms 30 ms 40 ms 50 ms 60 ms 70 ms 80 ms 90 ms 100 ms 110

websocket?X-Atmosphere-tracking-id=08X-Atmosph...

Messages

1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...
1 {"priceWasSent": false, "market": "market_1", "product": "produ... 1... 0...

Parte 3: Midiendo

La siguiente es la medición tomada del cliente

SleepTime	Msg/s	Time	Msgs	Transport
0	130	10	1305	webSocket
0	18	10	176	long-polling
1	145	10	1447	webSocket
1	21	10	206	long-polling
10	90	10	901	webSocket
10	17	10	174	long-polling

Como podemos ver en los tres casos el transporte con websocket es mas eficiente. Y según las pantallas tomadas a continuación se podría entender que mientras el cliente debe hacer una seria de llamadas al servidor en el caso de long polling con una latencia aproximada de 200ms por mensaje, con el caso de websocket se hace una única llamada donde el cliente esta escuchando cada instrumento entrante y con una latencia aproximada de 10ms por instrumento, es decir, la razón por instrumentos recibidos de long polling a web socket es de aproximadamente 1:20, por lo cual el transporte ganador seria **websocket**.

Name	Status	Type	Initiator	Size	Time	Waterfall
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	7 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	7 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	5 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	4 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	5 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.5 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	9 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	7 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.5 KB	210 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	7 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.5 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	8 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.5 KB	212 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	4 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.5 KB	199 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	5 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	7 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	5 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	5 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.5 KB	255 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	5 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	
long-polling?X-Atmosphere-trac...	200	xhr	atmosphere.js:2...	2.3 KB	6 ms	

ElementsConsoleSources**Network**PerformanceMemoryApplicationSecurityAudits

⚙️ ⏸ 🔍 🔄 ⬇️ ⬆️ ⬅️

Filter☐ Hide data URLs All XHR JS CSS Img Media Font Doc WS Manifest Other

Namex Headers**Messages**Timing

☒ All Enter regex, for example: (web)?socket

Data	Length	Time
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	189	10:51:24.040
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	189	10:51:24.051
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	189	10:51:24.061
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 0, "price"... }	188	10:51:24.072
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	189	10:51:24.083
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 0, "price"... }	189	10:51:24.094
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	189	10:51:24.104
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	189	10:51:24.114
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	190	10:51:24.125
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	189	10:51:24.136
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 0, "price"... }	190	10:51:24.147
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	190	10:51:24.158
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 0, "price"... }	190	10:51:24.170
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	189	10:51:24.181
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	189	10:51:24.192
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	189	10:51:24.203
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	190	10:51:24.214
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	190	10:51:24.225
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	189	10:51:24.237
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	189	10:51:24.248
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 0, "price"... }	188	10:51:24.259
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 2, "price"... }	188	10:51:24.270
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 1, "price"... }	190	10:51:24.281
{ "priceWasSent": false, "market": "market_1", "product": "product_1", "instrumentName": "instrument_1", "level": 0, "price"... }	188	10:51:24.311