

Task for Software Engineer applicant

Test task

Create a simple web server that can sum up numbers in a multi-threaded environment.

- Create a Java HTTP server application that accepts at least 20 simultaneous requests. You can use Jetty or Tomcat web servers as the engine. Arriving requests will be HTTP POST requests.
- If a request with a number arrives, keep the number around, do not respond yet.
- If a request with the keyword "end" (without the quotes) arrives then respond with the sum of all received numbers to all open requests (e.g. if you request with numbers 4 and 7 and end, all three requests should get response 11).
- Requests can arrive in parallel at the same time, the system must not lose any numbers or requests.
- Expected numbers are without decimal places and the sum of them will not exceed 10 billion (10^9).
- After doing the "end" calculation forget all the numbers and be ready for the repeat cycle of operation (getting new requests with new numbers, giving out a response on the next end).
- Provide the application to us as a source with the build and deploy instructions (preferably it should build into a war file that can be run with Jetty or Tomcat).
- Provide tests as well

Example of operation

Terminal 1:

```
$ curl -d 1 http://localhost:1337/  
6  
  
## output "6" here is delayed until terminal 4 executes its request
```

Terminal 2:

```
$ curl -d 2 http://localhost:1337/  
6  
  
## output "6" here is delayed until terminal 4 executes its request
```

Terminal 3:

```
$ curl -d 3 http://localhost:1337/  
6  
  
## output "6" here is delayed until terminal 4 executes its request
```

Terminal 4:

```
$ curl -d end http://localhost:1337/  
6  
  
## output here is instant
```

Good luck!