

# Performance Testing with JMeter

Sep 13, 2019

# Suppose you built a web service

**Analyze Sentiment**

**Language**  
english ▾

**Enter text**  
great movie

Enter up to 50000 characters

Analyze

**Tokenize Text**

**Enter text**  
In Düsseldorf I took my hat off. But I can't put it back on.

Enter up to 50000 characters

Tokenize

**Stem Text**

**Choose stemmer**  
Porter ▾

**Enter text**  
Stemming is funnier than a bummer says the sushi loving computer scientist

Enter up to 50000 characters

Stem

**Tag and Chunk Text**

**Choose tagger/chunker**  
Default Tagger & NE Chunker ▾

**Enter text**  
San Francisco is very foggy.

Enter up to 50000 characters

Tag & Chunk

**Can your service handle 2000 users at the same time?**

**Can your service handle a lot of users in a short period of time?**

**How many concurrent users can your service deal with?**

**.....**

# Setup Local Web Service

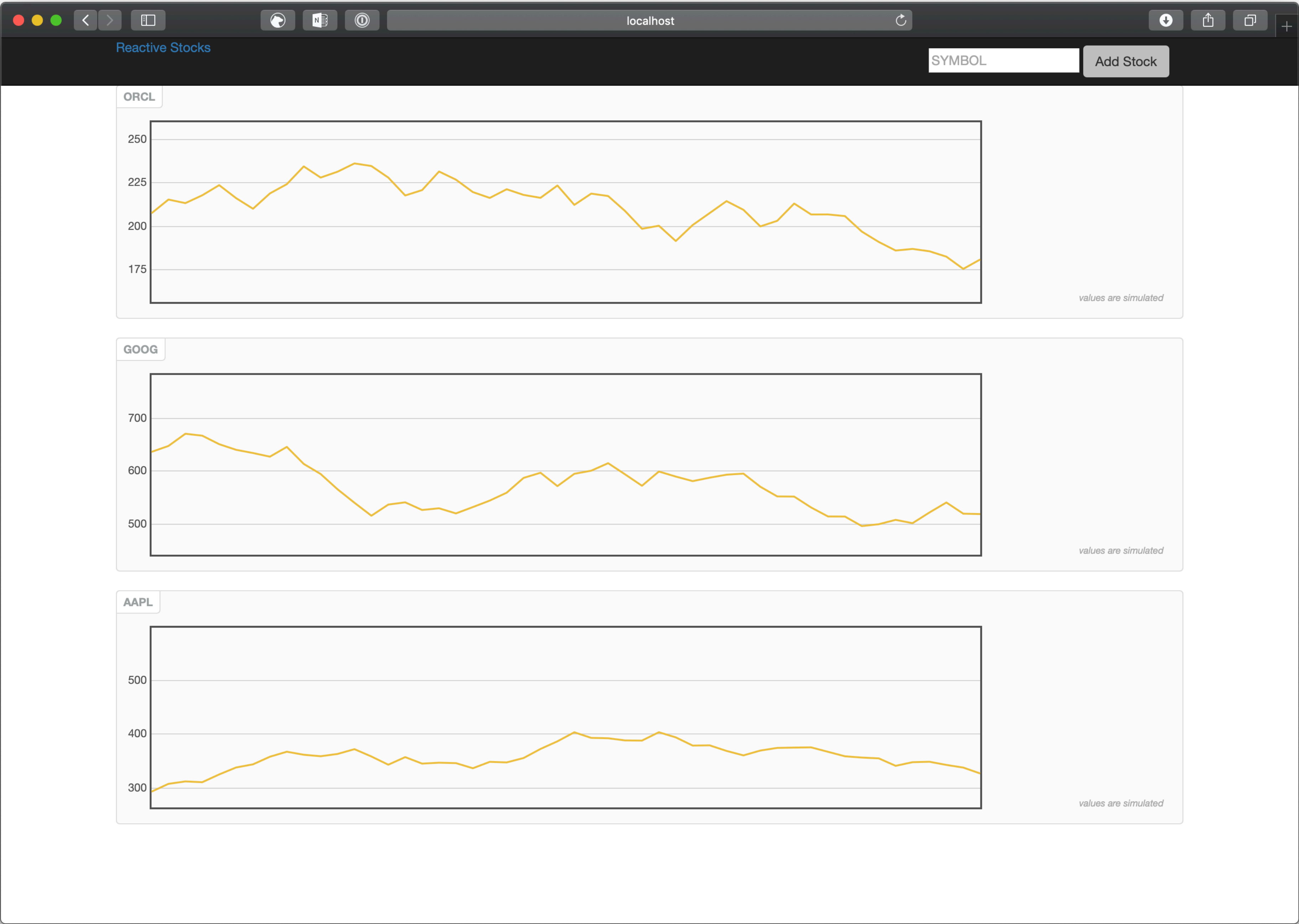
- Download webservice-1.0.zip from Canvas
- Unzip and go into the unzipped folder in console (or cmd if using Windows)
- Execute the following

```
./webservice -Dplay.http.secret.key=abcdefghijklmn
```

Or

```
webservice.bat -Dplay.http.secret.key=abcdefghijklmn
```

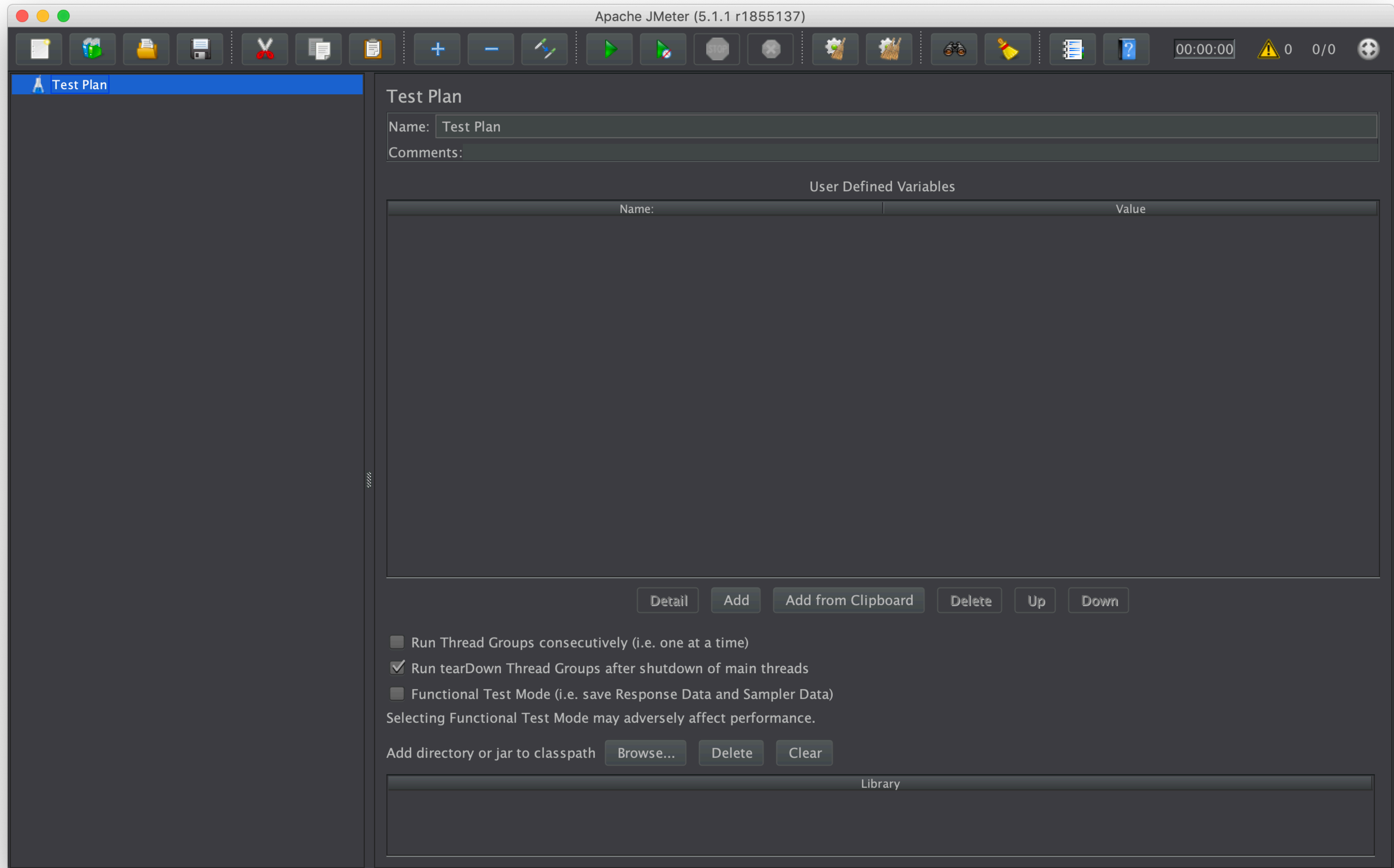
- Open a browser and go to localhost:9000



# Run JMeter

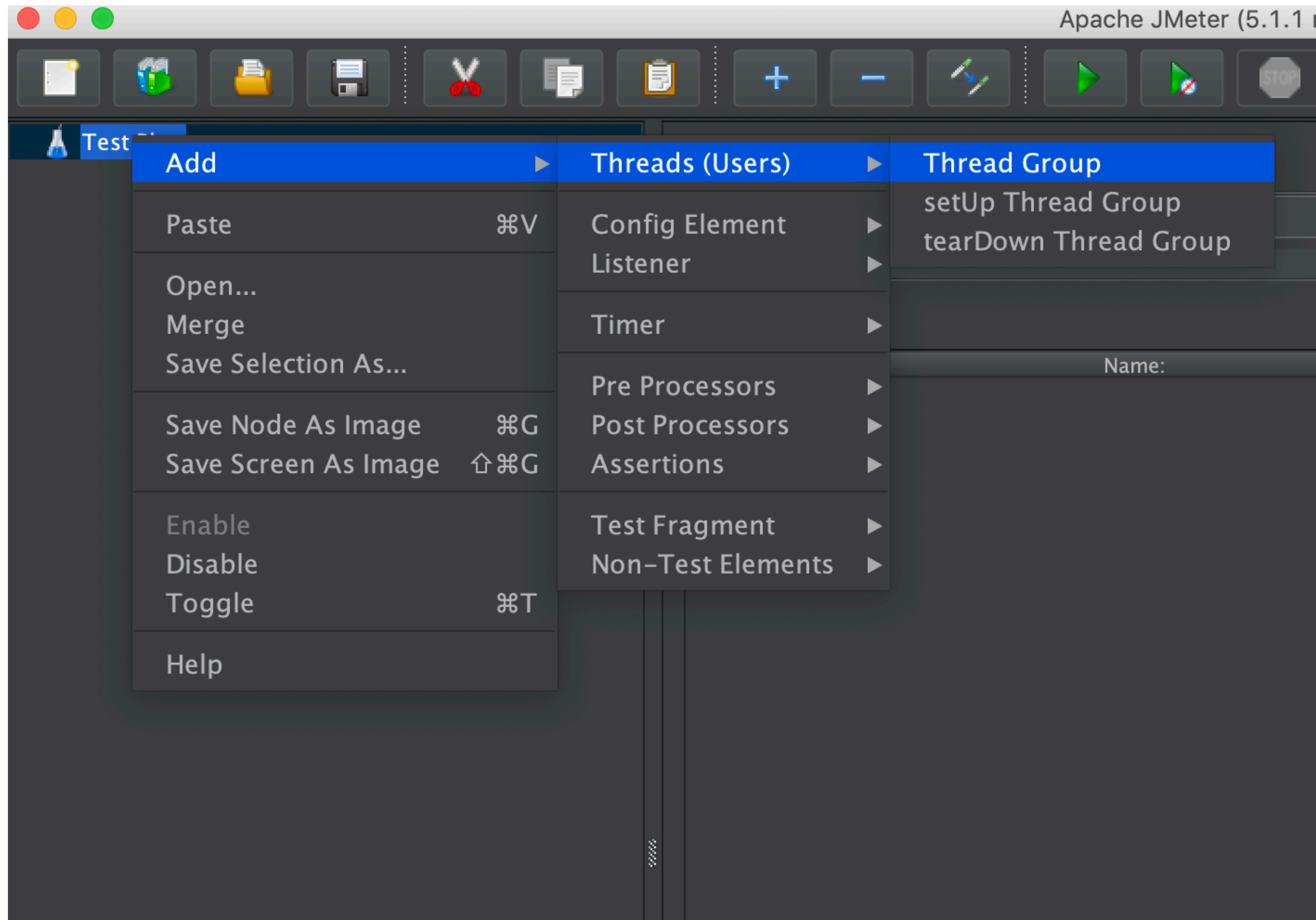
- Download latest JMeter following this link:
  - [https://jmeter.apache.org/download\\_jmeter.cgi](https://jmeter.apache.org/download_jmeter.cgi)
- Unzip
- Execute `bin/jmeter` (Mac/Linux) or `bin\jmeter.bat` (Windows)





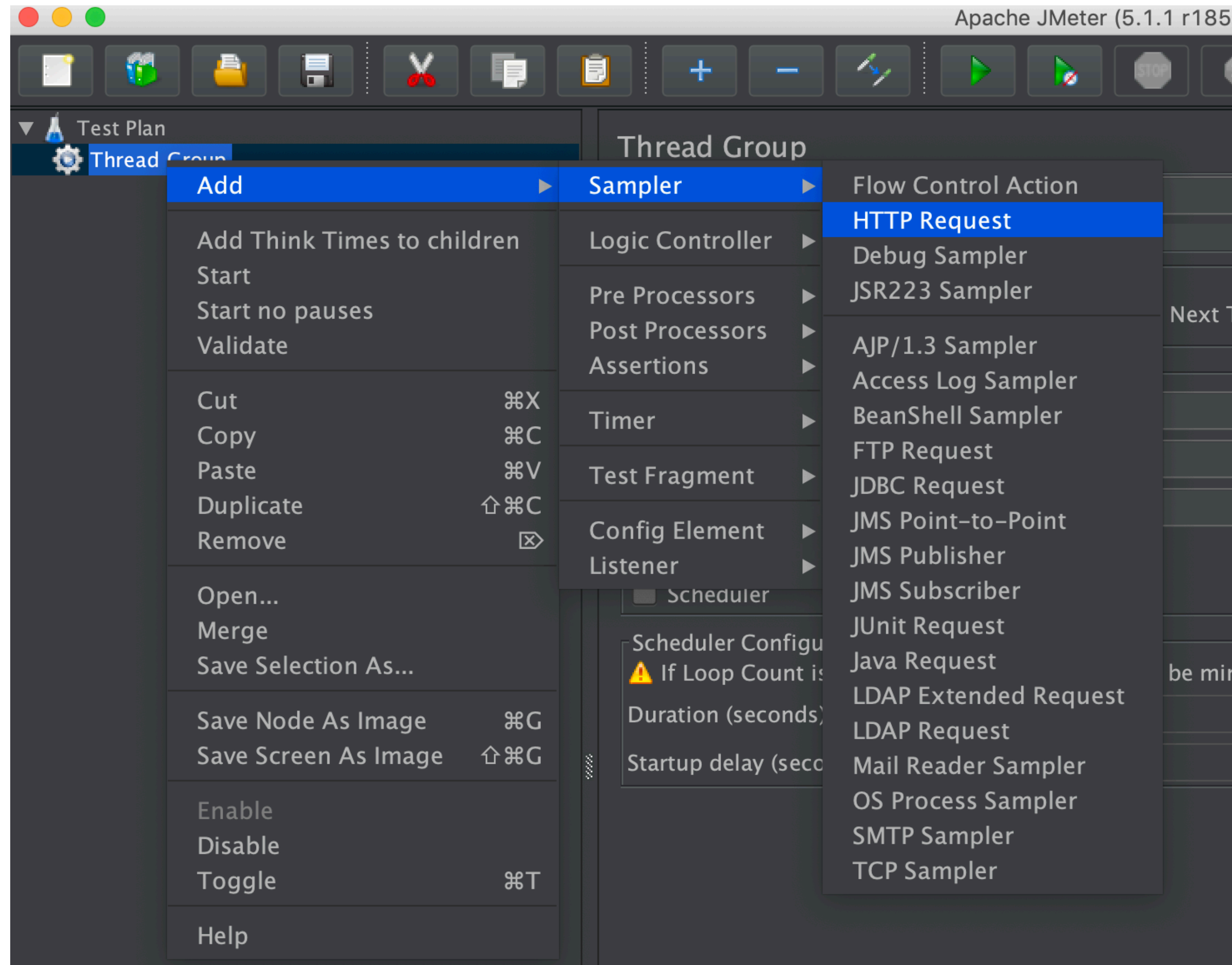
**Can your service handle 2000 users at the same time?**

# Step 1: Adding a Test Group



**Number of threads: 2000**  
(simulating 2000 users)  
**Ramp-up Period: 20**  
(increasing load, create 100  
users per second)  
**Loop count: 1**  
(repeat once)

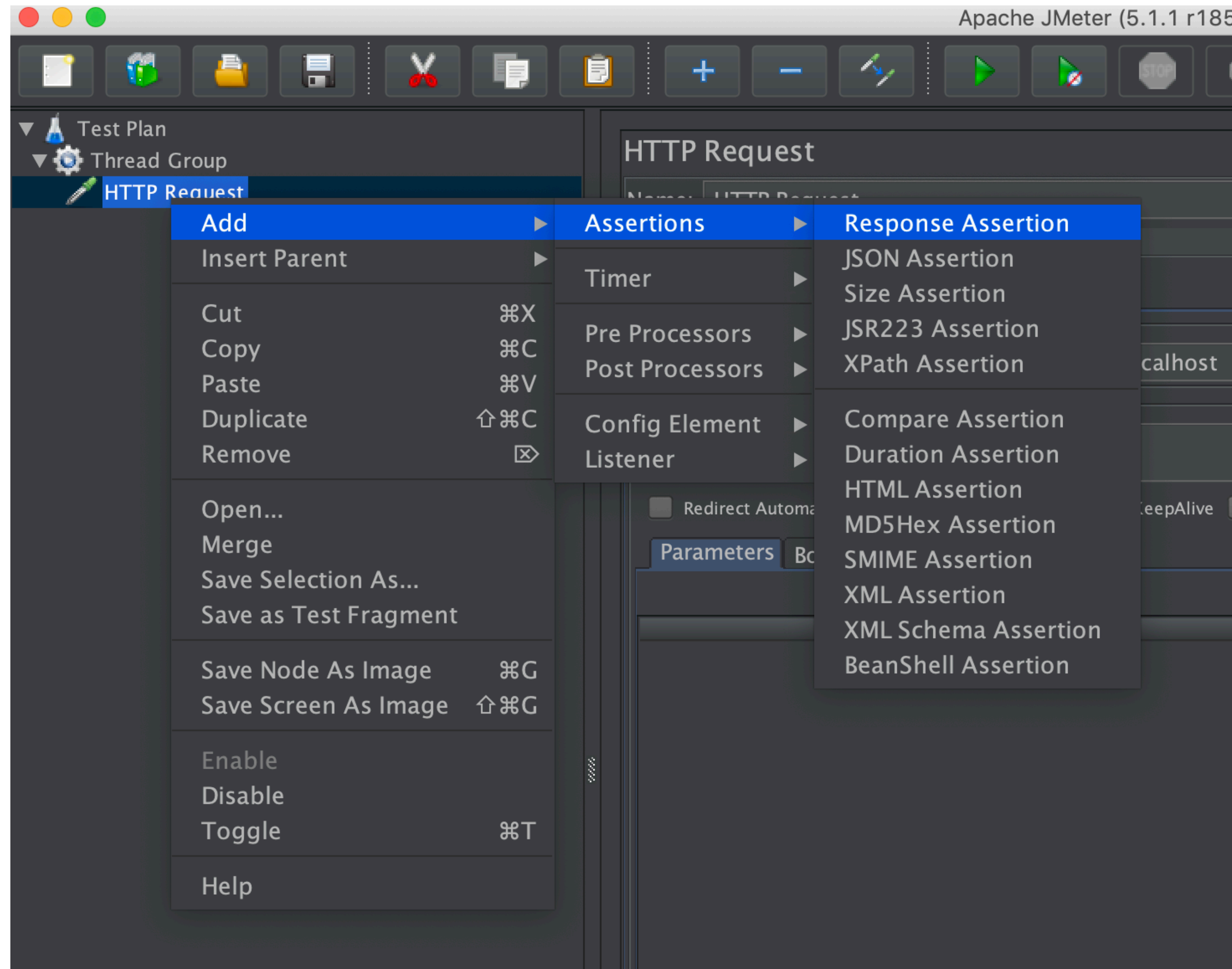
# Step 2: HTTP Request



**Server Name or IP: localhost**  
**Port Number: 9000**

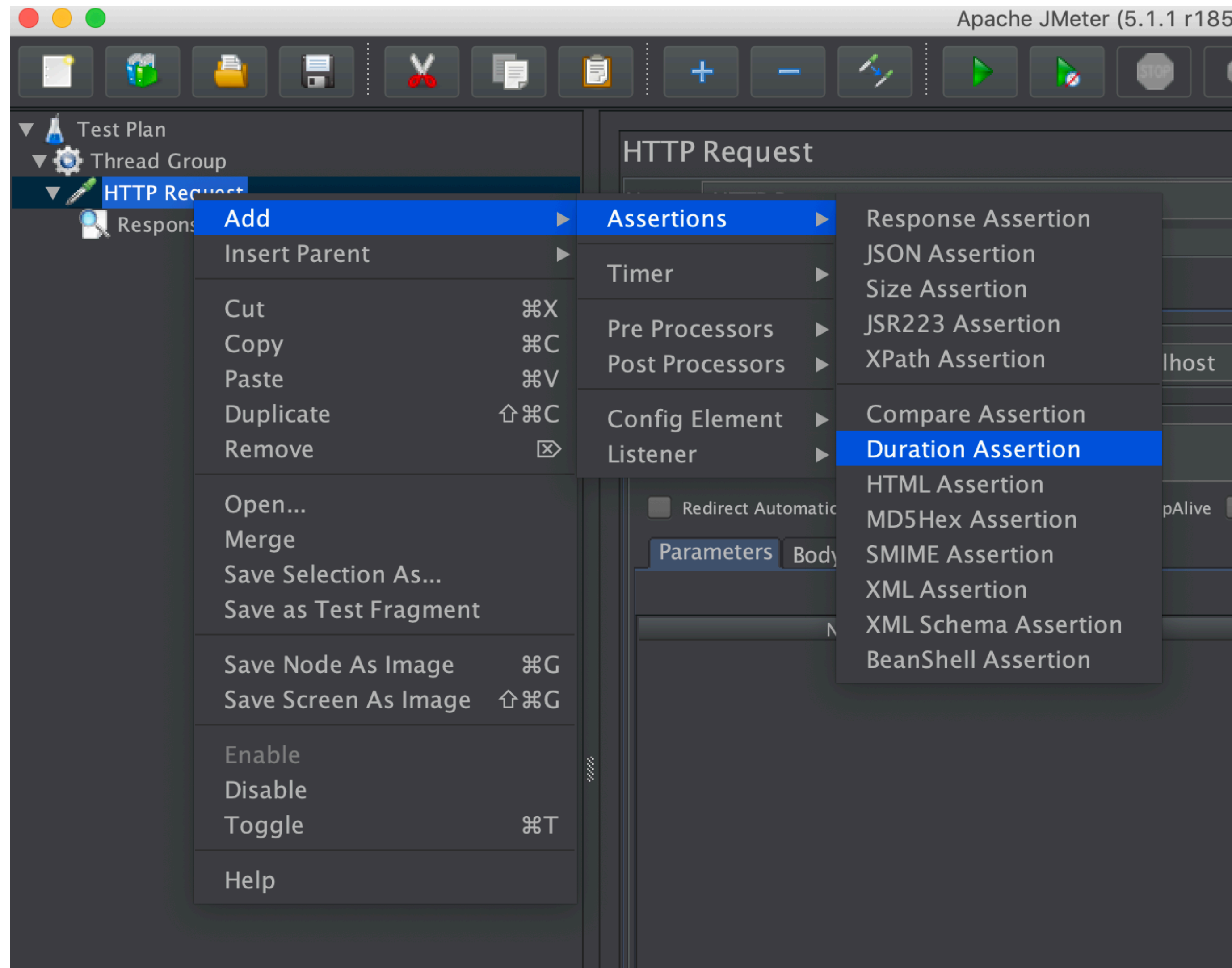


# Step 3: Assert Response Code



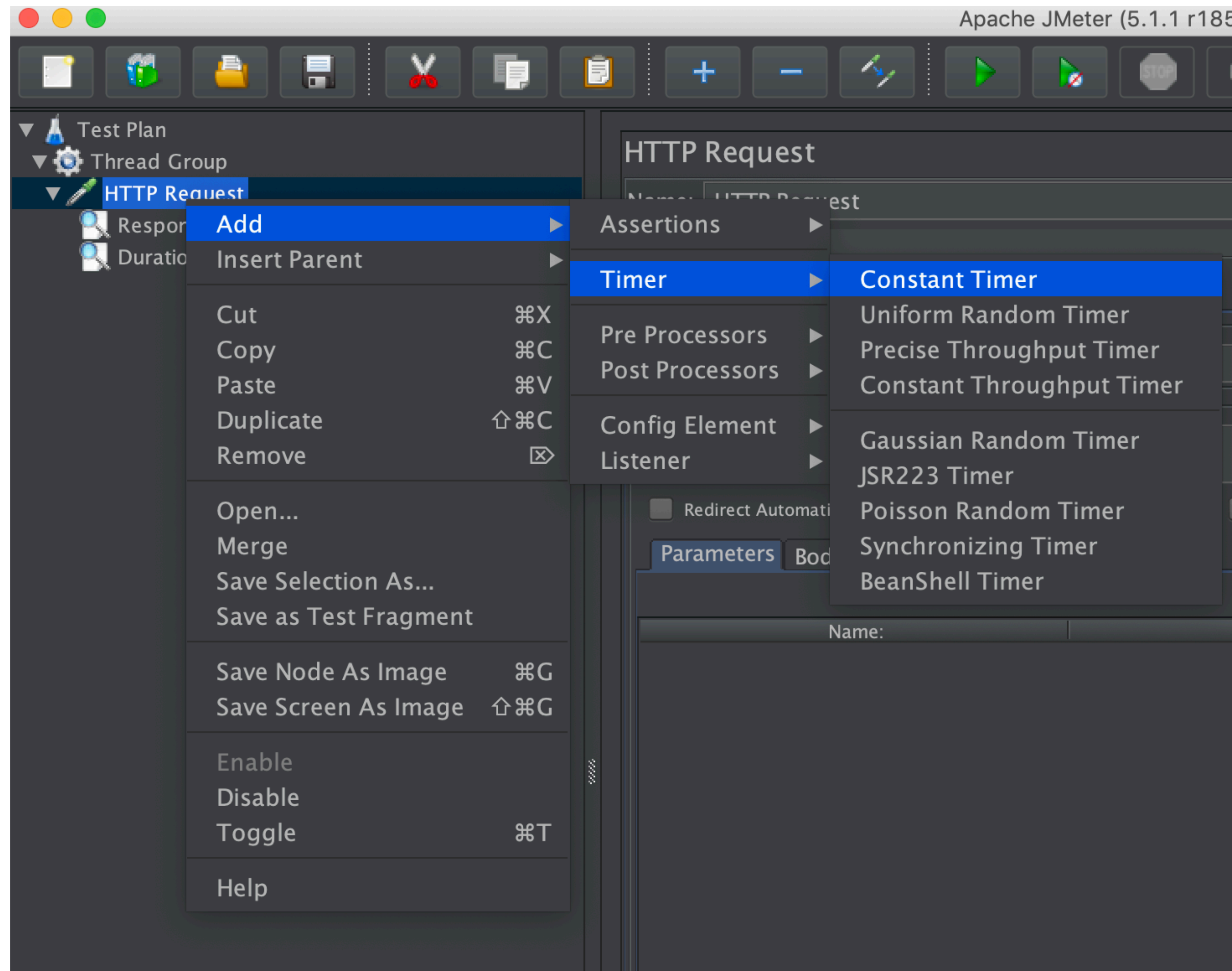
**Field to Test:** Response Code  
**Pattern Matching Rule:**  
Equals  
**Patterns to Test:** 200

# Step 4: Assert Duration



**Duration in milliseconds: 100**

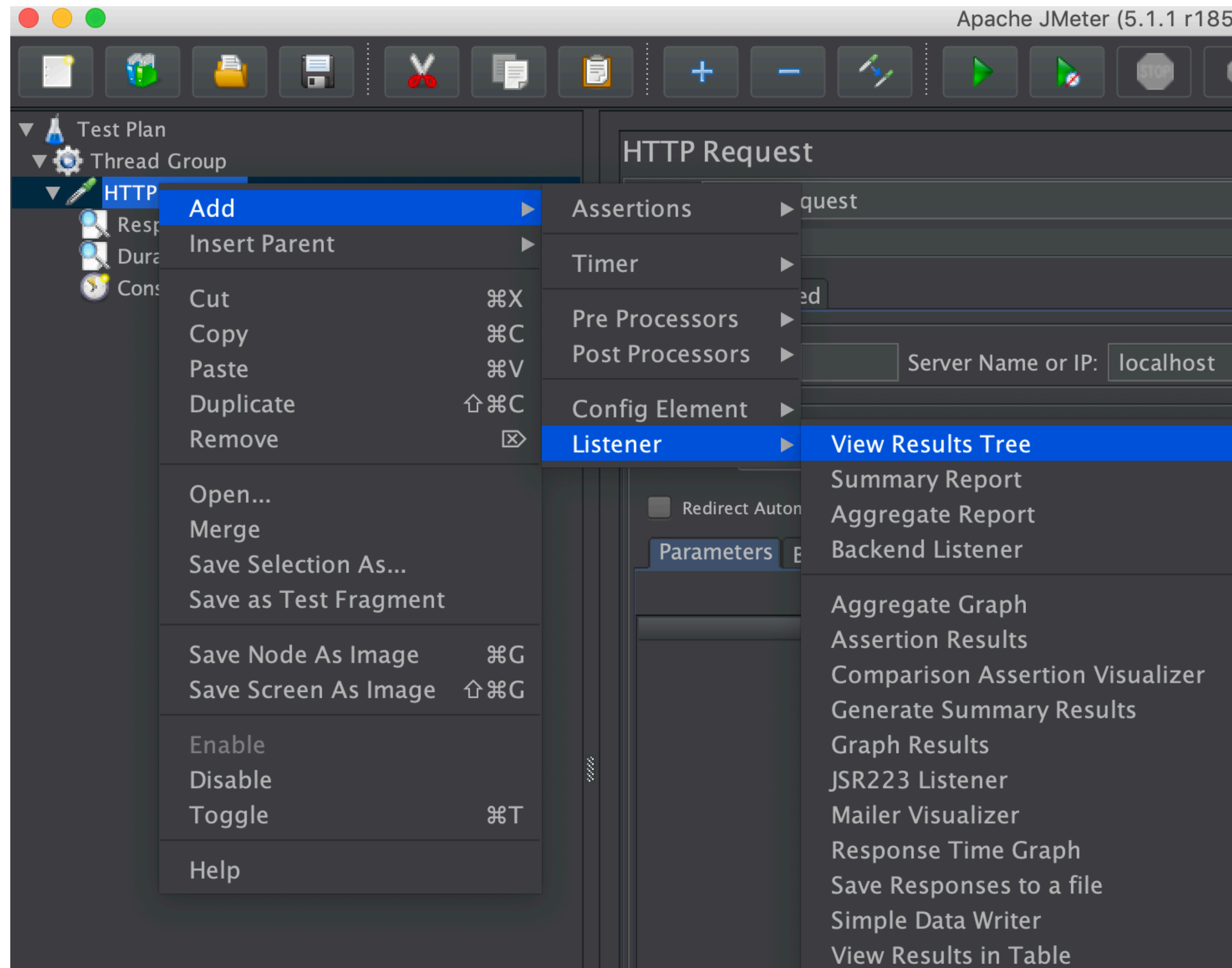
# Step 5: Timer



**Thread Delay: 20000**



# Step 6: Report



**Summary Report**  
**View Results Tree**  
**Response Time Graph**



# Step 7: Save and Run

- In general, use the GUI to setup a test plan.
- Use CLI for actual testing (why?)
- Remember to save! JMeter might crash.

# Your turn...

**Can your service handle a lot of users in a short period of time?**

**How many concurrent users can your service deal with?**

# More on JMeter

- Simulate user input
- Different connections other than HTTP
- <https://jmeter.apache.org/usermanual/index.html>