# **web页面与java websocket接口的压力测试**

对于网站开发，压力测试是少不了的。压力测试可以对网络，服务器，系统架构的优化程度进行检验。以便提前知道网站的负载能力，并未优化提供依据。

对于网站的压力测试，基本离不开下面两点的测试：web页面访问的压力测试和java接口的压力测试（我们接口是通过websocket实现）。

web页面访问压力测试工具可以使用apache自带的ab命令进行检测；java websocket接口的压力测试可以使用Jmeter+websocket插件进行检测。

****ab安装与使用****

# **一、**         **下载软件**

下载地址：http://de.apachehaus.com/downloads/httpd-2.4.17-x64.zip

# **二、**         **进入软件路径**

把下载的文件解压到后，用cmd指令进入”文件夹路径/Apache24/bin”

# **三、**         **获取ab指令参数列表**

执行“ab help”

Options are:

 -n requests Number of requests to perform

 -c concurrency Number of multiple requests to make at a time

 -t timelimit Seconds to max. to spend on benchmarking

 This implies -n 50000

 -s timeout Seconds to max. wait **for** each response

 Default is 30 seconds

 -b windowsize Size of TCP send/receive buffer, **in** bytes

 -B address Address to bind to when making outgoing connections

 -p postfile File containing data to POST. Remember also to **set** -T

 -u putfile File containing data to PUT. Remember also to **set** -T

 -T content-type Content-type header to use **for** POST/PUT data, eg.

 'application/x-www-form-urlencoded'

 Default is 'text/plain'

 -v verbosity How much troubleshooting info to print

 -w Print out results **in** HTML tables

 -i Use HEAD instead of GET

 -x attributes String to insert as table attributes

 -y attributes String to insert as tr attributes

 -z attributes String to insert as td or th attributes

 -C attribute Add cookie, eg. 'Apache=1234'. (repeatable)

 -H attribute Add Arbitrary header line, eg. 'Accept-Encoding: gzip'

 Inserted after all normal header lines. (repeatable)

 -A attribute Add Basic WWW Authentication, the attributes

 are a colon separated username and password.

 -P attribute Add Basic Proxy Authentication, the attributes

 are a colon separated username and password.

 -X proxy:port Proxyserver and port number to use

 -V Print version number and exit

 -k Use HTTP KeepAlive feature

 -d Do not show percentiles served table.

 -S Do not show confidence estimators and warnings.

 -q Do not show progress when doing more than 150 requests

 -l Accept variable document length (use this **for** dynamic pages)

 -g filename Output collected data to gnuplot format file.

 -e filename Output CSV file with percentages served

 -r Don't exit on socket receive errors.

 -m method Method name

 -h Display usage information (this message)

# **四、**         **进行web压力测试**

执行“ab -n 1000 -c
100 http://www.baidu.com/index.html”

# **五、**         **报表结果**

Server Software: Apache/2.4.7Server Hostname: www.3elearn.com.cnServer Port: 80

 Document Path: /index.htmlDocument Length: 16300 bytes

 Concurrency Level: 100Time taken **for** tests: 26.931 secondsComplete requests: 1000Failed requests: 0Total transferred: 16573000 bytes

HTML transferred: 16300000 bytesRequests per second: 37.13 [#/sec] (mean)Time per request: 2693.147 [ms] (mean)Time per request: 26.931 [ms] (mean, across all concurrent requests)Transfer rate: 600.95 [Kbytes/sec] received

 Connection Times (ms)

 min mean[+/-sd] median maxConnect: 9 27 9.1 26 51Processing: 50 2532 466.3 2659 2740Waiting: 27 1325 769.3 1330 2649Total: 80 2559 466.1 2687 2776

 Percentage of the requests served within a certain time (ms)

 50% 2687

 66% 2704

 75% 2714

 80% 2718

 90% 2730

 95% 2739

 98% 2749

 99% 2754

 100% 2776 (longest request)

****Jmeter安装与使用****

# ****一、**** ****下载****

****下载地址：http://mirror.bit.edu.cn/apache//jmeter/binaries/apache-jmeter-2.13.zip****

# ****二、**** ****安装****

****解压文件夹，然后进入“apache-jmeter-2.13/bin/”****

****双击“jmeter.bat”启动软件****

# ****三、**** ****安装websokcet插件****

****Websocket插件下载：https://dl.dropboxusercontent.com/u/89045969/jmeter/ApacheJmeter\_websocket-0.1.0-SNAPSHOT.jar****

****https://dl.dropboxusercontent.com/u/89045969/jmeter/ApacheJmeter\_websocket-dist-0.1.0-SNAPSHOT.jar****

****把jar包复制到“jmeter安装路径/lib/ext/”****

****关闭jmeter再启动****

# ****四、**** ****使用****

## ****a)**** ****添加线程组****

****在“测试计划”—“添加“——”Threads(users)”——“线程组”****

## ****b)**** ****添加websocket****

****在“线程组”——“添加”——“sample”——“websocket sample”****

## ****c)**** ****添加结果树****

****在“线程组”——“添加”——“监听器”——“查看结果树”****

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