

Non Functional Testing Report

Group-24 (AlgrowBiz)

➤ Tool used:

Apache JMeter: An open-source testing tool used to measure and analyze the performance of applications, including web services, APIs, and databases. It supports simulating high-load scenarios for testing the system's robustness.

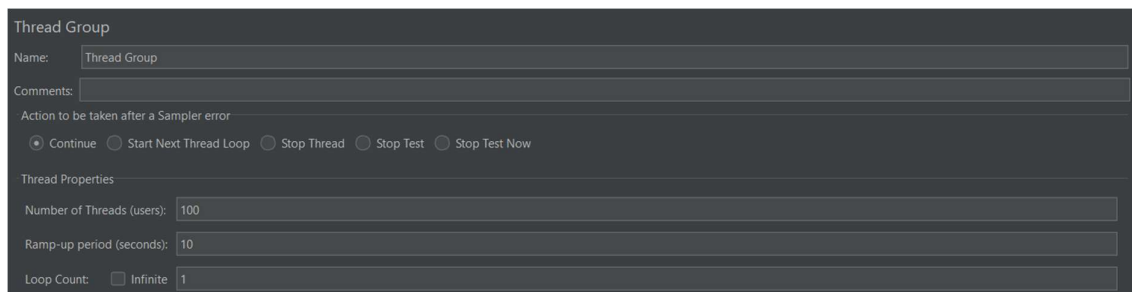
➤ Login Page Test Report

- **Thread properties:**

Number of threads: 100

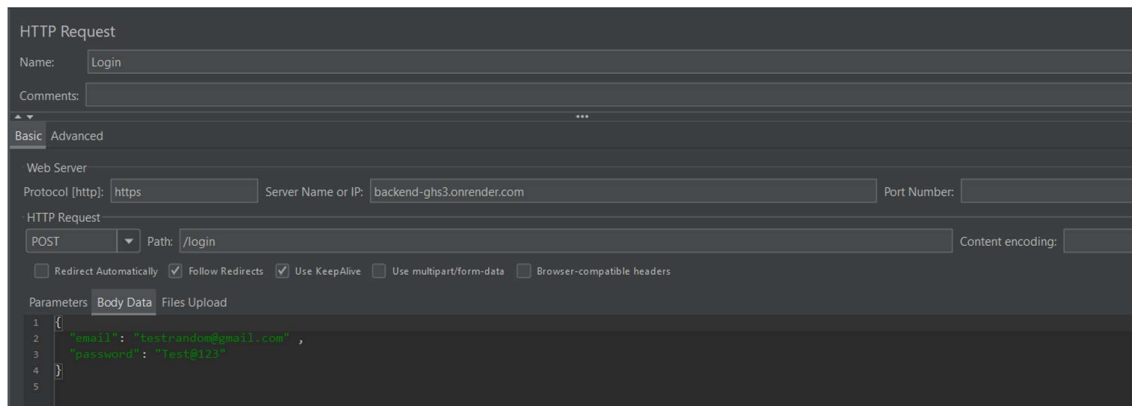
Ramp up period: 10

Loop: 1



The screenshot shows the 'Thread Group' configuration window in JMeter. The 'Name' field is set to 'Thread Group'. The 'Comments' field is empty. Under 'Action to be taken after a Sampler error', the 'Continue' radio button is selected. In the 'Thread Properties' section, 'Number of Threads (users)' is set to 100, 'Ramp-up period (seconds)' is set to 10, and 'Loop Count' is set to 1 with the 'Infinite' checkbox unchecked.

- **HTTP Request type: POST**



The screenshot shows the 'HTTP Request' configuration window in JMeter. The 'Name' field is set to 'Login'. The 'Comments' field is empty. The 'Basic' tab is selected. Under 'Web Server', 'Protocol (http)' is set to 'https', 'Server Name or IP' is set to 'backend-ghs3.onrender.com', and 'Port Number' is empty. Under 'HTTP Request', the method is set to 'POST' and the 'Path' is set to '/login'. The 'Content encoding' field is empty. The 'Redirect Automatically' checkbox is unchecked, while 'Follow Redirects', 'Use KeepAlive', 'Use multipart/form-data', and 'Browser-compatible headers' are all checked. In the 'Parameters' section, the 'Body Data' tab is selected, showing a JSON body with 'email' and 'password' fields.

- Result tree:

View Results Tree

Name: View Results Tree

Comments:

Write results to file / Read from file

Filename: Browse... Log/Display Only: ☐ Errors ☐ Successes

Search: ☐ Case sensitive ☐ Regular exp.

Text

Sampler result Request Response data

Request Body Request Headers

1 POST https://backend-ghs3.onrender.com/Login

2

3 POST data:

4 {

5 "email": "kestrandom@gmail.com",

6 "password": "test@123"

7 }

8

9 [no cookies]

10

11

- Summary report for 100 samples

Summary Report

Name: Summary Report

Comments:

Write results to file / Read from file

Filename: Browse... Log/Display Only: ☐ Errors ☐ Successes

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Login	100	34356	1126	66426	18999.08	0.00%	1.3/sec	0.61	0.33	474.0
TOTAL	100	34356	1126	66426	18999.08	0.00%	1.3/sec	0.61	0.33	474.0

Error: 0%

- Increasing the users to 200, keeping other factors same.

Thread Group

Name: Thread Group

Comments:

Action to be taken after a Sampler error

☒ Continue ☐ Start Next Thread Loop ☐ Stop Thread ☐ Stop Test ☐ Stop Test Now

Thread Properties

Number of Threads (users): 200

Ramp-up period (seconds): 10

Loop Count: ☐ Infinite 1

- **Summary report for 200 samples**

Summary Report

Name:

Summary Report

Comments:

Write results to file / Read from file

Filename

Browse...

Log/Display Only:

☐ Errors

☐ Successes

Configure

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Login	200	73698	3494	144792	40852.19	1.00%	1.3/sec	0.61	0.32	481.5
TOTAL	200	73698	3494	144792	40852.19	1.00%	1.3/sec	0.61	0.32	481.5

Error: 1%

- **Increasing users to 300, keeping other factors same**

Thread Group	
Name:	Thread Group
Comments:	
Action to be taken after a Sampler error	
<input checked="" type="radio"/> Continue <input type="radio"/> Start Next Thread Loop <input type="radio"/> Stop Thread <input type="radio"/> Stop Test <input type="radio"/> Stop Test Now	
Thread Properties	
Number of Threads (users):	300
Ramp-up period (seconds):	10
Loop Count:	<input type="checkbox"/> Infinite <input checked="" type="checkbox"/> 1

Summary Report

Name:

Summary Report

Comments:

Write results to file / Read from file

Filename

Browse...

Log/Display Only:

☐ Errors

☐ Successes

Configure

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Login	300	107811	1719	218024	60649.87	3.33%	1.3/sec	0.74	0.33	572.8
TOTAL	300	107811	1719	218024	60649.87	3.33%	1.3/sec	0.74	0.33	572.8

Error: 3.3%

We notice that the error percentage increases as number of users increases.

➤ Signup Page Test Report

- **Thread properties**

Number of threads: 100

Ramp up period: 10

Loop: 1

Thread Group

Name:

Signup Thread Group

Comments:

Action to be taken after a Sampler error

☒ Continue

☐ Start Next Thread Loop

☐ Stop Thread

☐ Stop Test

☐ Stop Test Now

Thread Properties

Number of Threads (users):

100

Ramp-up period (seconds):

10

Loop Count:

☐ Infinite

☒ 1

- HTTP Request type: POST

HTTP Request

Name:

Signup post request

Comments:

Basic

Advanced

Web Server

Protocol (http):

https

 Server Name or IP:

backend-ghs3.onrender.com

 Port Number:

HTTP Request

POST

Path:

/signup

 Content encoding:

☐ Redirect Automatically

☒ Follow Redirects

☒ Use KeepAlive

☐ Use multipart/form-data

☐ Browser-compatible headers

Parameters

Body Data

Files Upload

1 {

2 "userName": "TestRandom123456" ,

3 "email": "TestRandom123456@gmail.com" ,

4 "password": "Test@123"

5 }

- **Results tree:**

Summary Report

Name:

Summary Report

Comments:

Write results to file / Read from file

Filename

Browse...

Log/Display Only: ☐ Errors ☐ Successes

Configure

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Signup post req...	100	1396	934	2464	262.37	99.00%	8.9/sec	3.64	2.62	420.1
TOTAL	100	1396	934	2464	262.37	99.00%	8.9/sec	3.64	2.62	420.1

Error: 99%

- **Reason for error:**
One email can be used to register once. In our case the first thread was successful because it was a email never used before to signup. However once that was executed, that email can no longer be used to register again, hence we got error. The backend returns ‘400 Bad Request’ which is treated as an error by Jmeter.
- **How to resolve the error:**
Use a mock data with different usernames and emails.
Using mock data with different userNames and emails , we get following results
- **Updated Post request:**

HTTP Request

Name: Signup post request

Comments:

BasicAdvanced

Web Server

Protocol [http]: httpsServer Name or IP: backend-ghs3.onrender.comPort Number:

HTTP Request

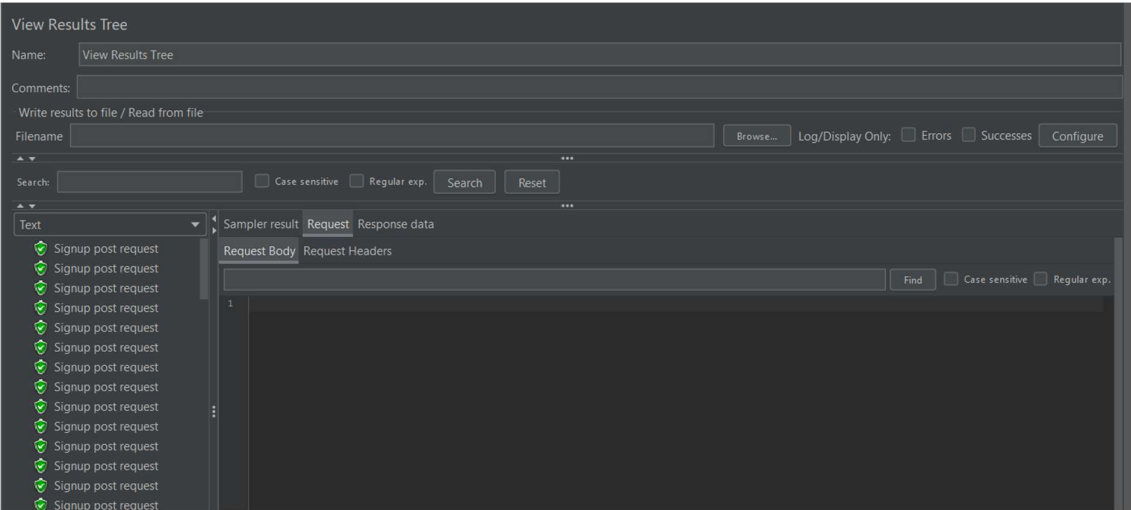
POSTPath: /signupContent encoding:

☐ Redirect Automatically☒ Follow Redirects☒ Use KeepAlive☐ Use multipart/form-data☐ Browser-compatible headers

ParametersBody DataFiles Upload

```
1 {
2   "userName": "${userName}" ,
3   "email": "${email}" ,
4   "password": "${password}"
5 }
```

• **Result tree for 100 user:**



• **Summary report for 100 users**

Summary Report

Name: Summary Report

Comments:

Write results to file / Read from file

Filename: Log/Display Only: ☐ Errors ☐ Successes

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Signup post req...	100	39730	1550	77703	21994.05	0.00%	1.1/sec	0.48	0.31	428.2
TOTAL	100	39730	1550	77703	21994.05	0.00%	1.1/sec	0.48	0.31	428.2

Error: 0%

• **Increasing users to 200:**

Thread Group

Name: Signup Thread Group

Comments:

Action to be taken after a Sampler error

☒ Continue ☐ Start Next Thread Loop ☐ Stop Thread ☐ Stop Test ☐ Stop Test Now

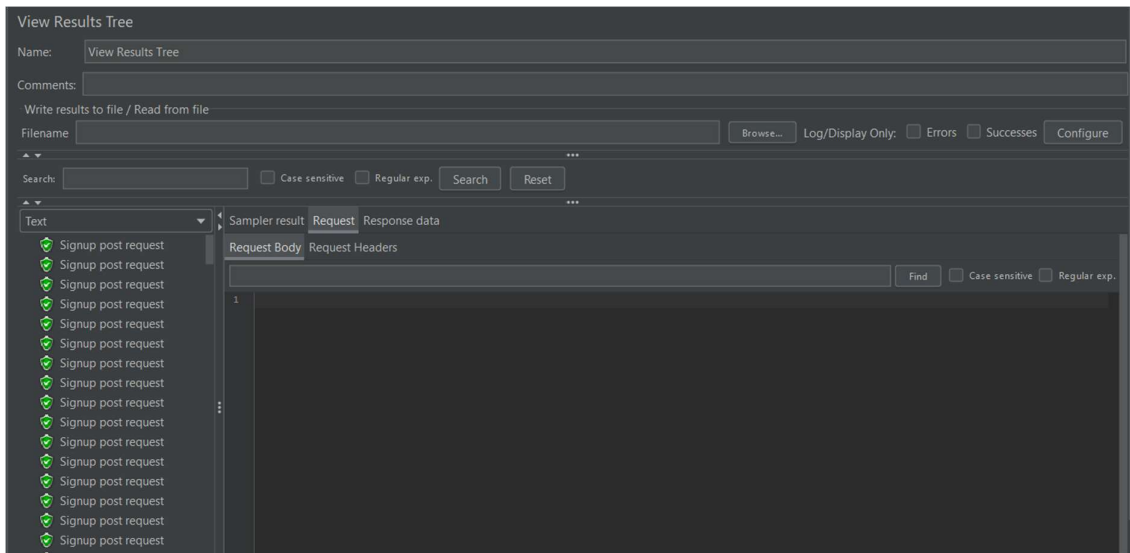
Thread Properties

Number of Threads (users):

Ramp-up period (seconds):

Loop Count: ☐ Infinite

• **Result tree for 200 user:**



- **Summary report for 200 users**

Summary Report

Name: Summary Report

Comments:

Write results to file / Read from file

Filename: Log/Display Only: ☐ Errors ☐ Successes

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Signup post req...	200	84503	1533	168311	48361.21	0.50%	1.1/sec	0.47	0.31	428.6
TOTAL	200	84503	1533	168311	48361.21	0.50%	1.1/sec	0.47	0.31	428.6

Error: 0.5%

- **Increasing users to 300:**

Thread Group

Name: Signup Thread Group

Comments:

Action to be taken after a Sampler error

☒ Continue
 ☐ Start Next Thread Loop
 ☐ Stop Thread
 ☐ Stop Test
 ☐ Stop Test Now

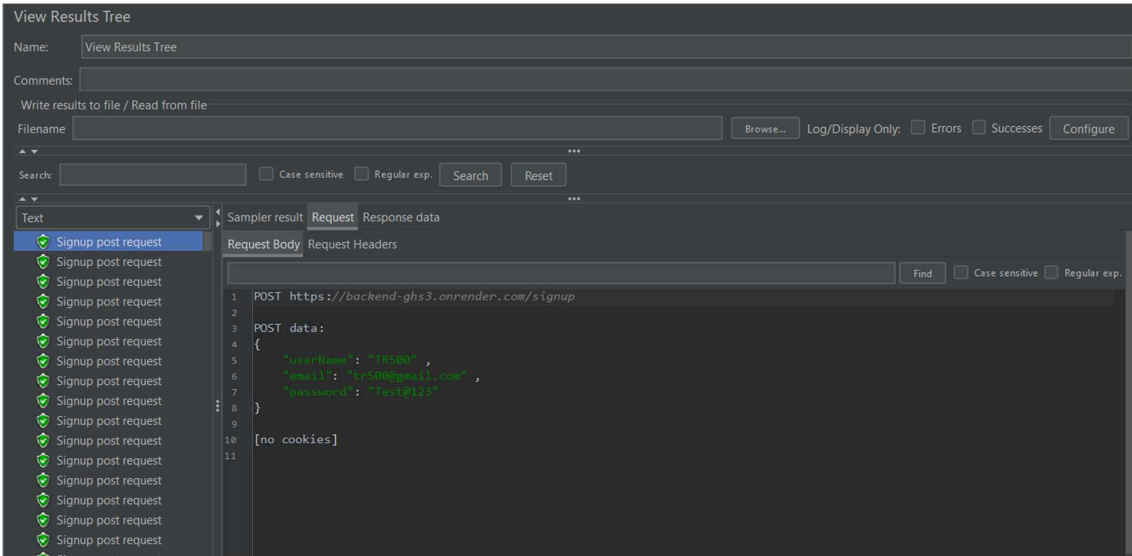
Thread Properties

Number of Threads (users):

Ramp-up period (seconds):

Loop Count: ☐ Infinite

- **Result tree for 300 user:**



- **Summary report for 300 users**

Summary Report

Name: Summary Report

Comments:

Write results to file / Read from file

Filename: Log/Display Only: ☐ Errors ☐ Successes

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
Signup post req...	300	125615	1416	250138	71977.27	0.00%	1.2/sec	0.48	0.31	429.0
TOTAL	300	125615	1416	250138	71977.27	0.00%	1.2/sec	0.48	0.31	429.0

Error: 0%

Same tests can be performed for other pages as well.