

# 16th May | Sprint 2 Stress Testing

## Stress Testing for Creating New Chat Users

We use JMeter to simulate as many user registration as we can, to see if our server can withstand this amount of load.

Since our chat's server & database is different from main project, therefore, user registration is tested independently.

API to make request to: <https://api.chatengine.io/users/>

HEADERS	VALUE
PRIVATE-KEY	{{private_key}}

### Body

```
{
  "username": "test_user",
  "secret": "password"
}
```

## JMeter Component Structure

- Sprint 2 Test Plan
  - Users Threads { Number of Threads: 2000, Ramp-up period (seconds): 1, Loop Count: 1 }
    - CSV Data Set Config { Filename: user.csv, Variable Names: USERNAME,PASSWORD }
    - Loop Controller
      - HTTP - Create User { Body Data: Specified in body, Method: POST }
      - HTTP - Header Manager { Headers: Specified in HEADERS }
      - View Results Tree
      - Graph Results
      - Summary Report

## Success Rate

```
# Stress Testing for creating new users
df_user = pd.read_csv("./User/User-Report.csv")
user_request_num = len(df_user)
print("Total number of request:", user_request_num)
user_code_list = df_user.responseCode.to_list()
valid_response = 0

for code in user_code_list:
    if code == '201':
        valid_response += 1

print("Number of successful request:", valid_response)
print("Success rate:", valid_response/user_request_num)
```

Total number of request: 2000

Number of successful request: 1995

Success rate: 99.75%

## Sample User Report

TimeStamp	Elapsed	ResponseCode	ResponseMessage	ThreadName	Success	Bytes	SentBytes	GrpThreads	AllThreads	URL	Latency	IdleTime	Connect
1621230179976	3527	201	Created	User Threads 1-49	TRUE	647	392	966	966	<a href="https://api.chatengine.io/users/">https://api.chatengine.io/users/</a>	3527	0	1
1621230179959	3586	201	Created	User Threads 1-40	TRUE	647	392	999	999	<a href="https://api.chatengine.io/users/">https://api.chatengine.io/users/</a>	3586	0	1
1621230180102	3462	500	Internal Server Error	User Threads 1-137	FALSE	574	394	1025	1025	<a href="https://api.chatengine.io/users/">https://api.chatengine.io/users/</a>	3462	0	1
1621230179960	4515	201	Created	User Threads 1-41	TRUE	647	392	1588	1588	<a href="https://api.chatengine.io/users/">https://api.chatengine.io/users/</a>	4515	0	2

1621230180003	4573	201	Created	User Threads 1-68	TRUE	647	392	1659	1659	<a href="https://api.chatengine.io/users/">https://api.chatengine.io/users/</a>	4573	0	2
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