

PES1UG23CS681

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L SECTION

CCLAB2

SS1:

The screenshot shows a web browser window with the URL `localhost:8000/events?user=PES1UG23CS681`. The page is titled "Events" and displays a grid of nine event cards. Each card contains the event ID, name, price, a brief description, and a "Register" button.

Event ID	Name	Price	Description	Action
1	Hackathon	₹ 500	Includes certificate • instant registration • limited seats	Register
2	Dance	₹ 300	Includes certificate • instant registration • limited seats	Register
3	Hackathon	₹ 500	Includes certificate • instant registration • limited seats	Register
4	Dance Battle	₹ 300	Includes certificate • instant registration • limited seats	Register
5	AI Workshop	₹ 400	Includes certificate • instant registration • limited seats	Register
6	Photography Walk	₹ 200	Includes certificate • instant registration • limited seats	Register
7	Gaming Tournament	₹ 350	Includes certificate • instant registration • limited seats	Register
8	Music Night	₹ 250	Includes certificate • instant registration • limited seats	Register
9	Treasure Hunt	₹ 150	Includes certificate • instant registration • limited seats	Register

SS2:

Monolith Failure

One bug in one module impacted the **entire** application.

Error Message
division by zero

Why did this happen?
Because this is a **monolithic application**: all modules share the same runtime and deployment. When one feature crashes, it affects the whole system.

What should you do in the lab?
• Take a screenshot (crash demonstration)
• Fix the bug in the indicated module
• Restart the server and verify recovery

Back to Events Login

```
INFO: 127.0.0.1:60258 - "GET /events?user=PES1UG23CS681 HTTP/1.1" 200 OK
INFO: 127.0.0.1:60331 - "GET /checkout HTTP/1.1" 500 Internal Server Error
ERROR: Exception in ASGI application
```

ZeroDivisionError: division by zero

SS3:

Checkout

This route is used to demonstrate a monolith crash + optimization.

Total Payable
₹ 9500

After fixing + optimizing checkout logic, re-run Locust and compare results.

What you should observe

- One buggy feature can crash the entire monolith.
- Inefficient loops cause high response times under load.
- Optimization improves performance but architecture still scales as one unit.

Next Lab: Split this monolith into Microservices (Events / Registration / Checkout).

```
INFO: 127.0.0.1:54396 - "GET /checkout HTTP/1.1" 200 OK
```

SS4:

```
(venv) C:\Users\VID\SEM6\CLOUD COMPUTING\LAB\LAB 2\PES1UG23CS681\CC Lab-2>locust -f locust/checkout_locustfile.py --host=http://localhost:8080
[2026-01-29 15:06:45,204] Jyothi/INFO/locust.main: Starting Locust 2.43.1
[2026-01-29 15:06:45,204] Jyothi/INFO/locust.main: Starting web interface at http://localhost:8089, press enter to open your default browser.
[2026-01-29 15:07:11,954] Jyothi/INFO/locust.runners: Ramping to 1 users at a rate of 1.00 per second
[2026-01-29 15:07:11,954] Jyothi/INFO/locust.runners: All users spawned: {"CheckoutUser": 1} (1 total users)
Traceback (most recent call last):
  File "C:\Users\VID\SEM6\CLOUD COMPUTING\LAB\LAB 2\PES1UG23CS681\CC Lab-2\venv\Lib\site-packages\gevent\_ffi\loop.py", line 279, in python_check_callback
    def python_check_callback(self, watcher_ptr): # pylint:disable=unused-argument
```

Type	Name	# Requests	# Fails	Median (ms)	95%ile (ms)	99%ile (ms)	Average (ms)	Min (ms)	Max (ms)	Average size (bytes)	Current RPS	Current Failures/s
GET	/checkout	19	0	8	2000	2000	115.56	7	2044	2797	0.7	0
	Aggregated	19	0	8	2000	2000	115.56	7	2044	2797	0.7	0

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    def python_check_callback(self, watcher_ptr): # pylint:disable=unused-argument
```

SS5:

The screenshot shows the Locust web interface running on localhost:8089. The interface displays various metrics such as Statistics, Charts, Failures, Exceptions, and Current Ratio. The Statistics tab shows a table of requests and their details. The command-line log window to the right shows the execution of the locust command and its output, including logs from the Locust framework and the Python file being executed.

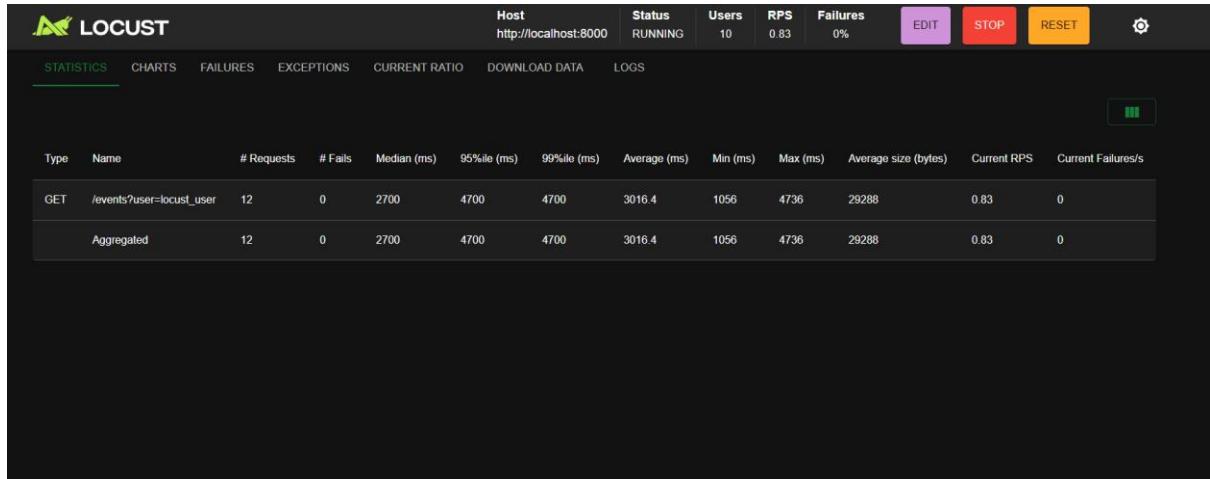
This screenshot shows the Locust web interface with a different configuration. It includes tabs for Statistics, Charts, Failures, Exceptions, Current Ratio, Download Data, and Logs. The Statistics tab shows a table of requests. The interface also includes buttons for Host, Status, RPS, Failures, EDIT, STOP, and RESET.

```
(venv) C:\Users\VID\SEM6\CLOUD COMPUTING\LAB\LAB 2\PES1UG23CS681\CC Lab-2>locust -f locust/checkout_locustfile.py --host=http://localhost:8089
[2026-01-29 15:21:46,788] Jyothi/INFO/locust.main: Starting Locust 2.43.1
[2026-01-29 15:21:46,788] Jyothi/INFO/locust.main: Starting web interface at http://localhost:8089, press enter to open your default browser.
[2026-01-29 15:21:57,802] Jyothi/INFO/locust.runners: Ramping to 1 users at a rate of 1.00 per second
[2026-01-29 15:21:57,821] Jyothi/INFO/locust.runners: All users spawned: {"CheckoutUser": 1} (1 total users)
Traceback (most recent call last):
  File "C:\Users\VID\SEM6\CLOUD COMPUTING\LAB\LAB 2\PES1UG23CS681\CC Lab-2\venv\Lib\site-packages\gevent\_ffilock.py", line 279, in python_check_callback
    def python_check_callback(self, watcher_ptr): # pylint:disable=unused-argument
KeyboardInterrupt
2026-01-29T09:56:15Z
[2026-01-29 15:26:15,279] Jyothi/INFO/locust.main: Shutting down (exit code 0)
Type      Name          # reqs   # fails | Avg     Min     Max     Med | req/s failures/s
-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
GET      /checkout      19       0(0.00%) | 114.97  5       2050    7 | 0.64     0.00
-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
Aggregated          19       0(0.00%) | 114.97  5       2050    7 | 0.64     0.00
-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
Response time percentiles (approximated)
Type      Name          50%    66%    75%    80%    90%    95%    98%    99%    99.9% 99.99% 100%
-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
# reqs
-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
GET      /checkout      19       7       7       9       9       12      2100    2100    2100    2100    2100
-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
```

Decreased from 115.56 to 114.97 and rps remained almost same(0.7).

SS6:

Unoptimized:



SS7:

Optimized:



SS8:

Unoptimized:

LOCUST		Host http://localhost:8000		Status RUNNING	Users 10	RPS 5.5	Failures 0%	EDIT	STOP	RESET	⚙️	
STATISTICS		CHARTS	FAILURES	EXCEPTIONS	CURRENT RATIO	DOWNLOAD DATA	LOGS					
Type	Name	# Requests	# Fails	Median (ms)	95%ile (ms)	99%ile (ms)	Average (ms)	Min (ms)	Max (ms)	Average size (bytes)	Current RPS	Current Failures/s
GET	/my-events? user=locust_user	86	0	380	2400	2500	589.87	107	2539	3144	5.5	0
Aggregated		86	0	380	2400	2500	589.87	107	2539	3144	5.5	0

SS9:

Optimized:

LOCUST		Host http://localhost:8000		Status RUNNING	Users 10	RPS 6.8	Failures 0%	EDIT	STOP	RESET	⚙️	
STATISTICS		CHARTS	FAILURES	EXCEPTIONS	CURRENT RATIO	DOWNLOAD DATA	LOGS					
Type	Name	# Requests	# Fails	Median (ms)	95%ile (ms)	99%ile (ms)	Average (ms)	Min (ms)	Max (ms)	Average size (bytes)	Current RPS	Current Failures/s
GET	/my-events? user=locust_user	124	0	7	2100	2100	173.84	4	2083	3144	6.8	0
Aggregated		124	0	7	2100	2100	173.84	4	2083	3144	6.8	0