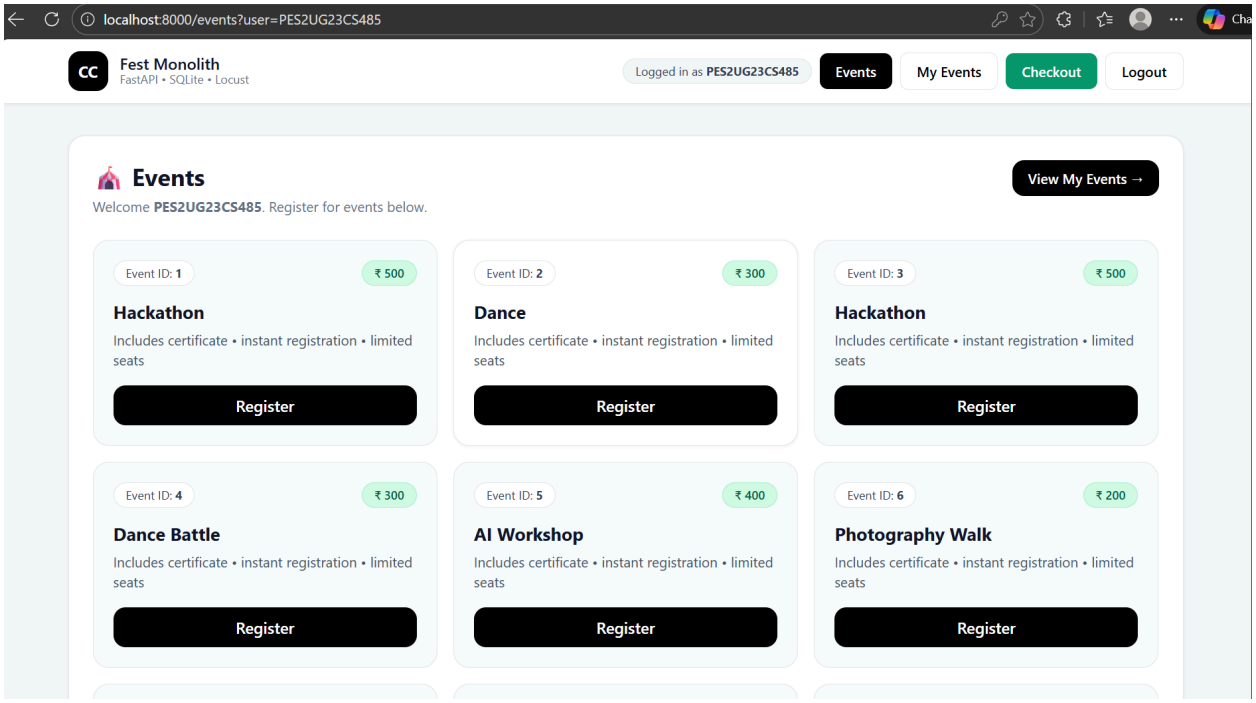
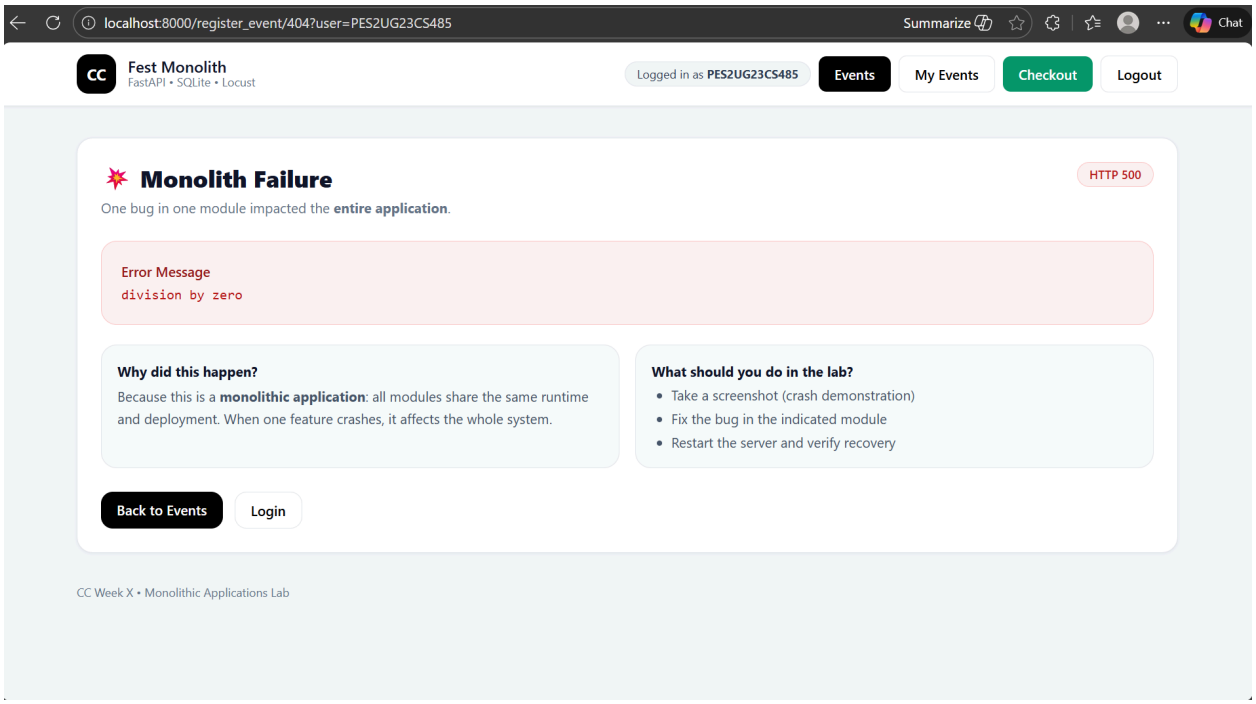
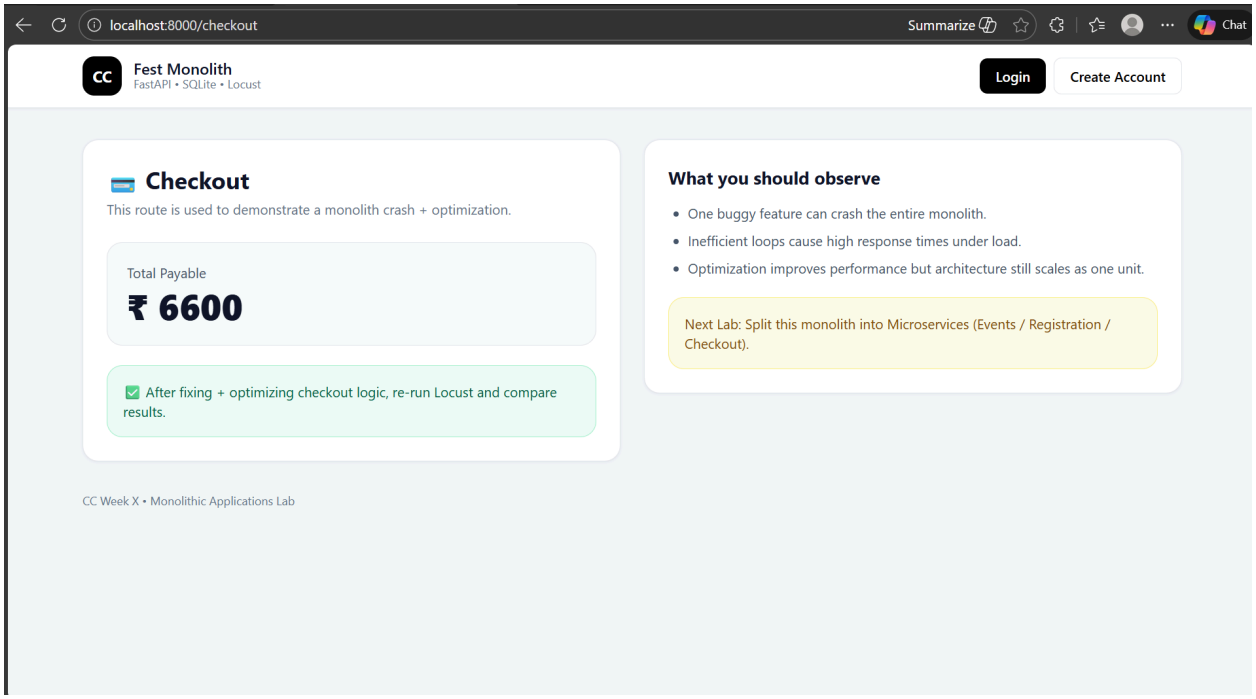
SS1


localhost:8000/events?user=PES2UG23CS485
CC
Fest Monolith
FastAPI • SQLite • Locust
Logged in as PES2UG23CS485
Events
My Events
Checkout
Logout
Events
View My Events →
Welcome PES2UG23CS485. Register for events below.
Event ID: 1
₹ 500
Hackathon
Includes certificate • instant registration • limited seats
Register
Event ID: 2
₹ 300
Dance
Includes certificate • instant registration • limited seats
Register
Event ID: 3
₹ 500
Hackathon
Includes certificate • instant registration • limited seats
Register
Event ID: 4
₹ 300
Dance Battle
Includes certificate • instant registration • limited seats
Register
Event ID: 5
₹ 400
AI Workshop
Includes certificate • instant registration • limited seats
Register
Event ID: 6
₹ 200
Photography Walk
Includes certificate • instant registration • limited seats
Register

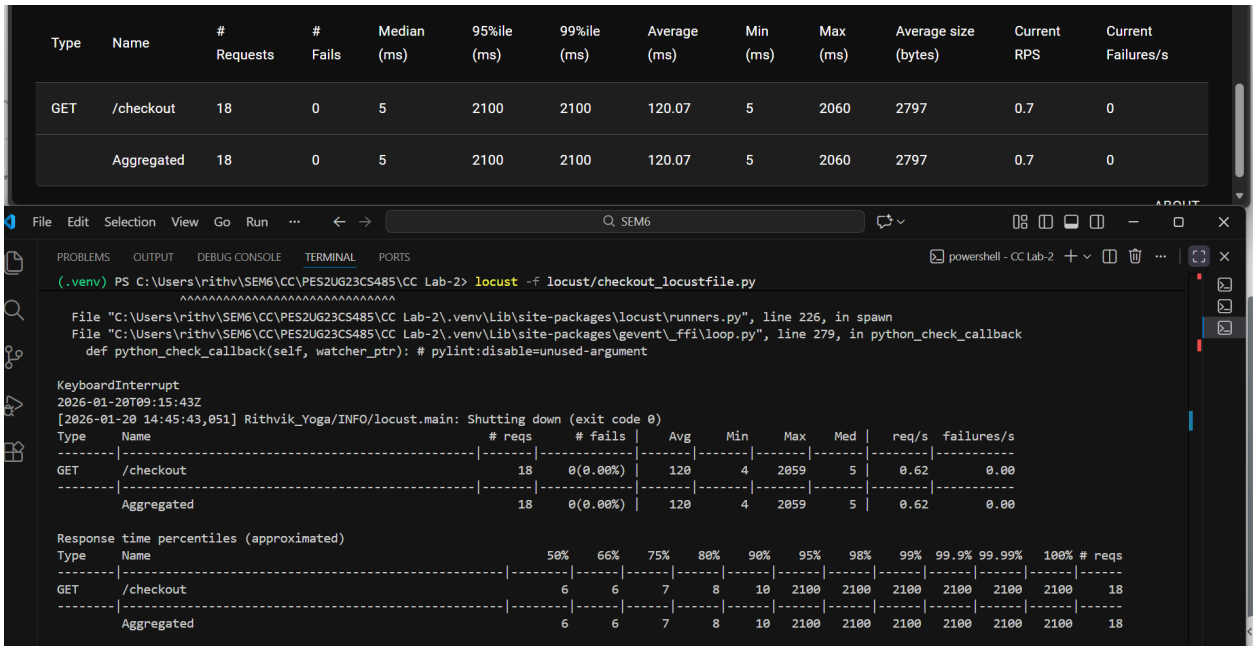
SS2


localhost:8000/register_event/404?user=PES2UG23CS485
Summarize
Chat
CC
Fest Monolith
FastAPI • SQLite • Locust
Logged in as PES2UG23CS485
Events
My Events
Checkout
Logout
Monolith Failure
HTTP 500
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
CC Week X • Monolithic Applications Lab

SS3

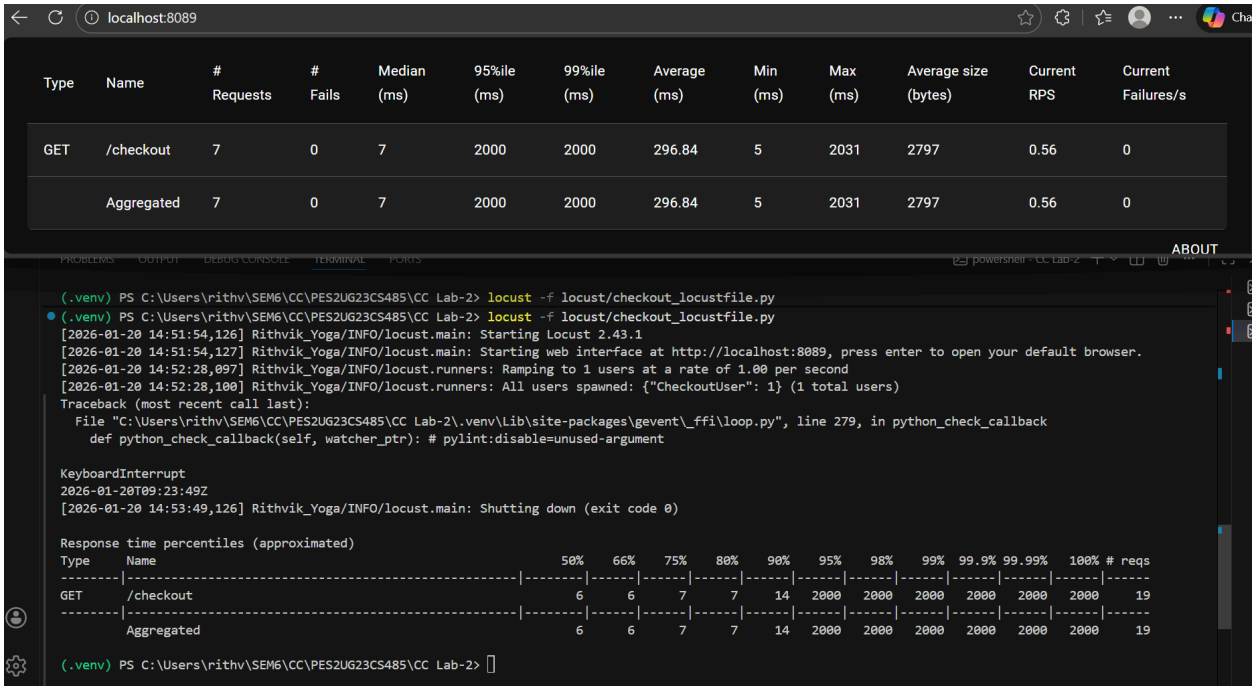


ss4

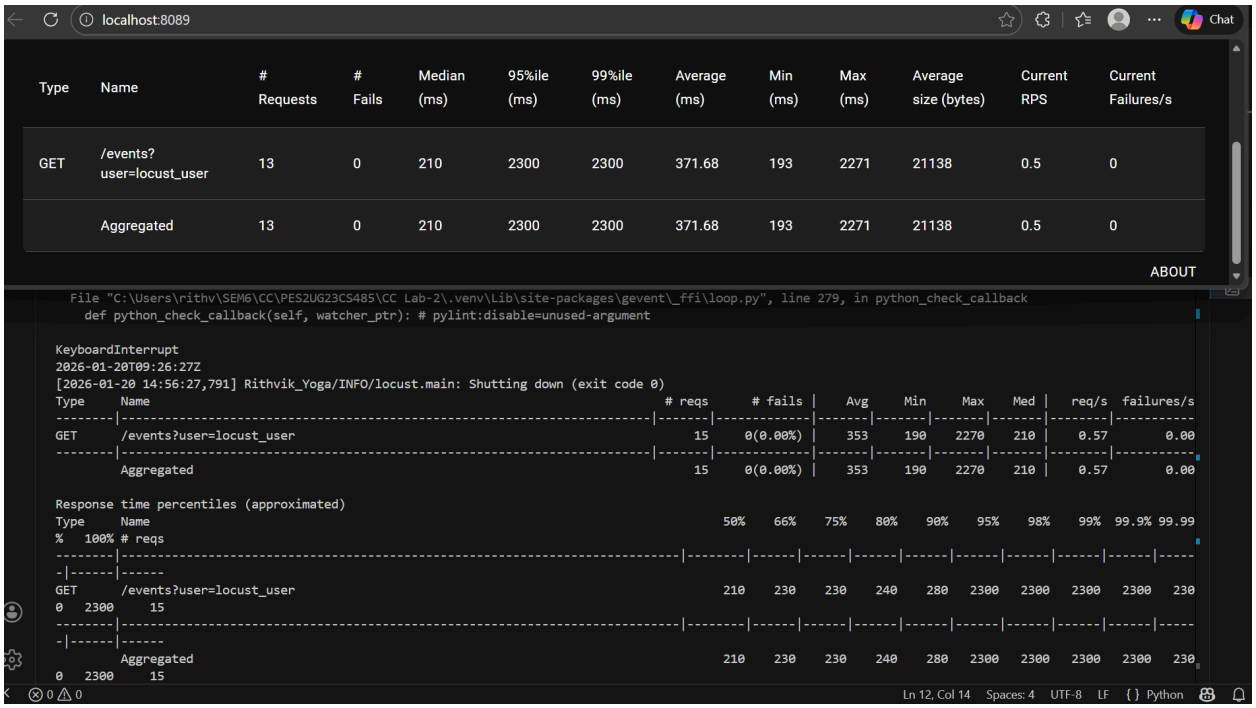


Type	Name	# Requests	# Fails	Median (ms)	95%ile (ms)	99%ile (ms)	Average (ms)	Min (ms)	Max (ms)	Average size (bytes)	Current RPS	Current Failures/s
GET	/checkout	18	0	5	2100	2100	120.07	5	2060	2797	0.7	0
	Aggregated	18	0	5	2100	2100	120.07	5	2060	2797	0.7	0

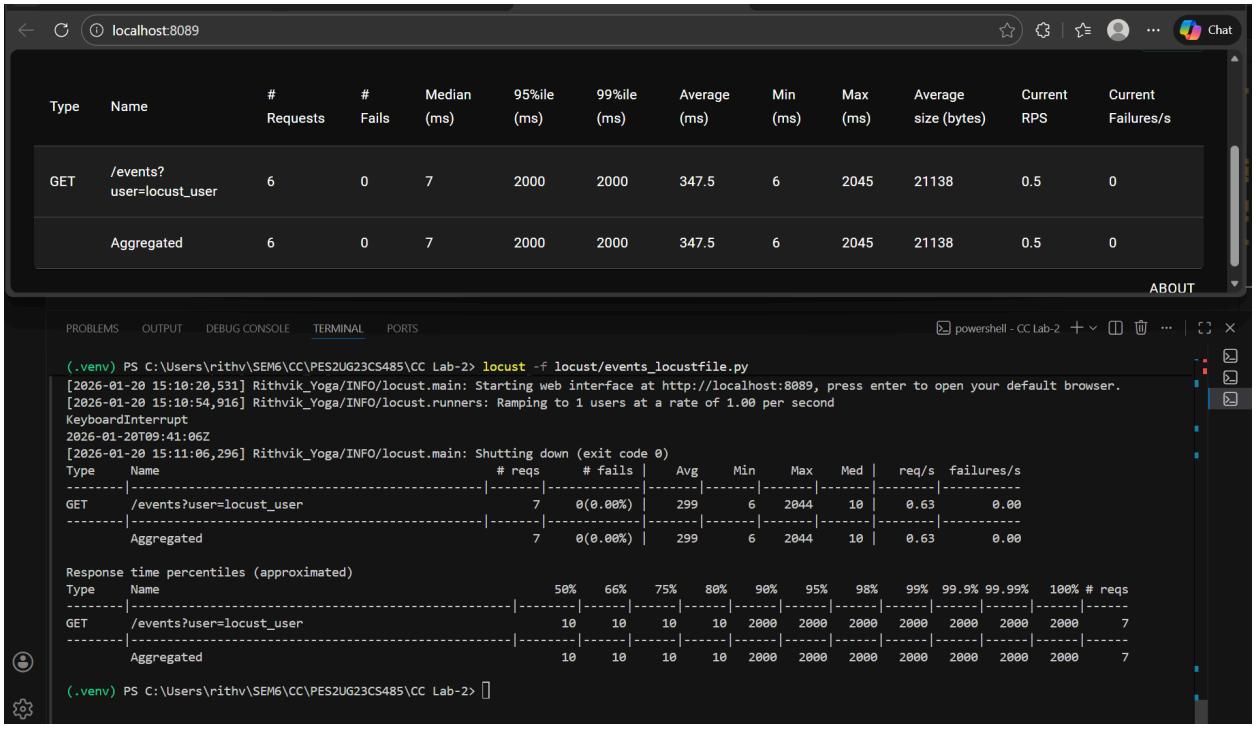
Ss5


localhost:8089
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 7 0 7 2000 2000 296.84 5 2031 2797 0.56 0
Aggregated 7 0 7 2000 2000 296.84 5 2031 2797 0.56 0
ABOUT
(.venv) PS C:\Users\rithv\SEM6\CC\PES2UG23CS485\CC Lab-2> locust -f locust/checkout_locustfile.py
(.venv) PS C:\Users\rithv\SEM6\CC\PES2UG23CS485\CC Lab-2> locust -f locust/checkout_locustfile.py
[2026-01-20 14:51:54,126] Rithvik_Yoga/INFO/locust.main: Starting Locust 2.43.1
[2026-01-20 14:51:54,127] Rithvik_Yoga/INFO/locust.main: Starting web interface at http://localhost:8089, press enter to open your default browser.
[2026-01-20 14:52:28,097] Rithvik_Yoga/INFO/locust.runners: Ramping to 1 users at a rate of 1.00 per second
[2026-01-20 14:52:28,100] Rithvik_Yoga/INFO/locust.runners: All users spawned: {"CheckoutUser": 1} (1 total users)
Traceback (most recent call last):
File "C:\Users\rithv\SEM6\CC\PES2UG23CS485\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
KeyboardInterrupt
2026-01-20T09:23:49Z
[2026-01-20 14:53:49,126] Rithvik_Yoga/INFO/locust.main: Shutting down (exit code 0)
Response time percentiles (approximated)
Type Name 50% 66% 75% 80% 90% 95% 98% 99% 99.9% 99.99% 100% # reqs
GET /checkout 6 6 7 7 14 2000 2000 2000 2000 2000 2000 19
Aggregated 6 6 7 7 14 2000 2000 2000 2000 2000 2000 19
(.venv) PS C:\Users\rithv\SEM6\CC\PES2UG23CS485\CC Lab-2>

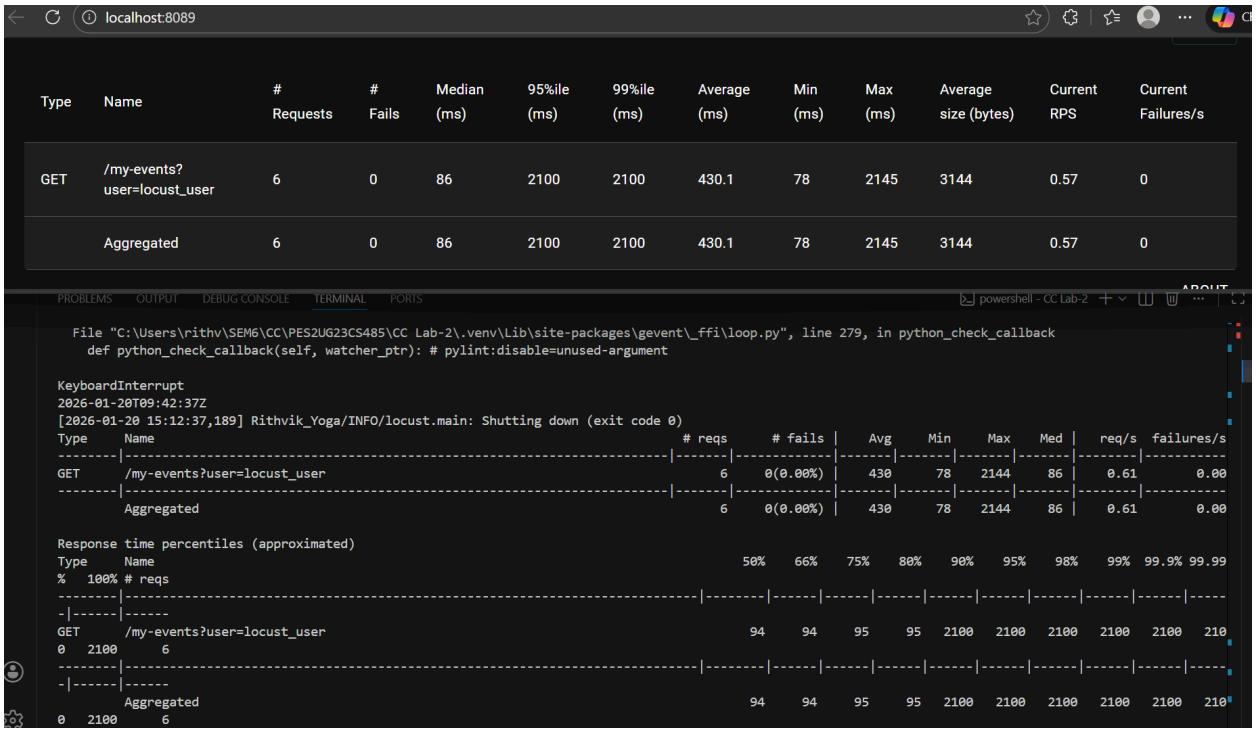
Ss6


localhost:8089
Chat
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 /events?user=locust_user 13 0 210 2300 2300 371.68 193 2271 21138 0.5 0
Aggregated 13 0 210 2300 2300 371.68 193 2271 21138 0.5 0
ABOUT
File "C:\Users\rithv\SEM6\CC\PES2UG23CS485\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
KeyboardInterrupt
2026-01-20T09:26:27Z
[2026-01-20 14:56:27,791] Rithvik_Yoga/INFO/locust.main: Shutting down (exit code 0)
Type Name # reqs # fails | Avg Min Max Med | req/s failures/s
GET /events?user=locust_user 15 0(0.00%) | 353 190 2270 210 | 0.57 0.00
Aggregated 15 0(0.00%) | 353 190 2270 210 | 0.57 0.00
Response time percentiles (approximated)
Type Name 50% 66% 75% 80% 90% 95% 98% 99% 99.9% 99.99% 100% # reqs
GET /events?user=locust_user 210 230 230 240 280 2300 2300 2300 2300 2300 2300 15
Aggregated 210 230 230 240 280 2300 2300 2300 2300 2300 2300 15
Ln 12, Col 14 Spaces: 4 UTF-8 LF { } Python

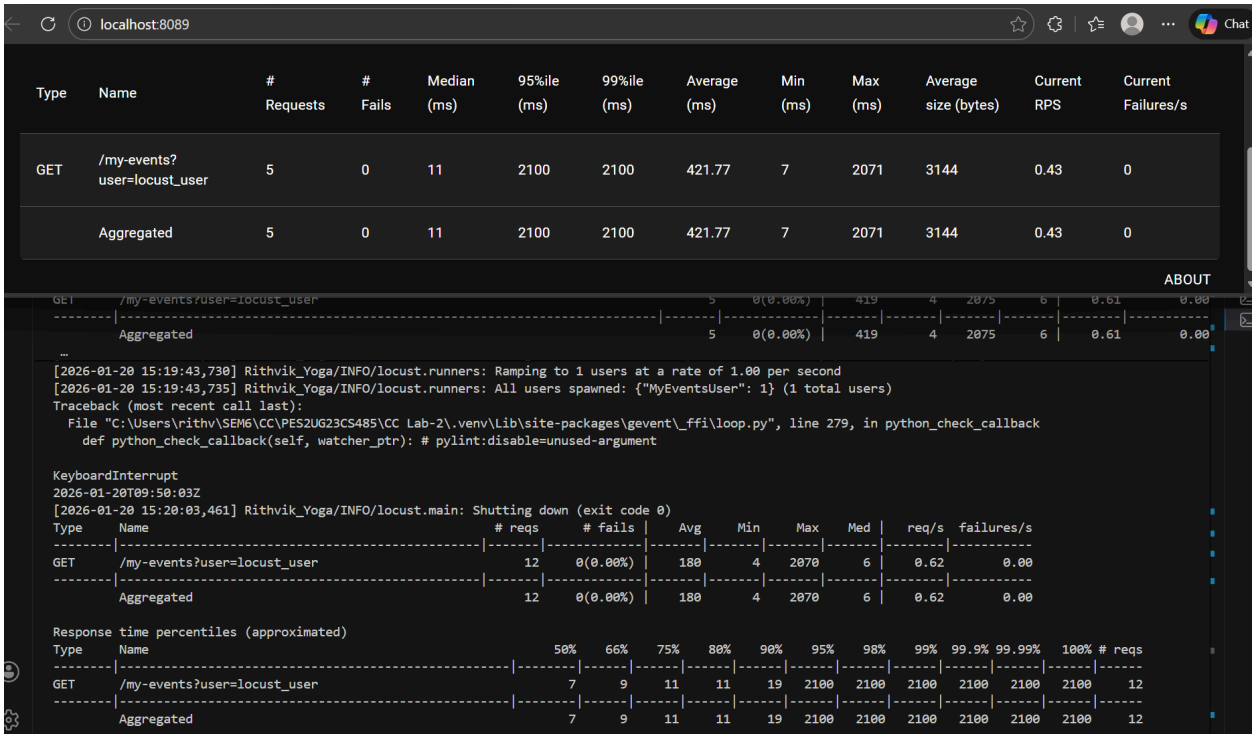
ss7


localhost:8089
Chat
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 /events? user=locust_user 6 0 7 2000 2000 347.5 6 2045 21138 0.5 0
Aggregated 6 0 7 2000 2000 347.5 6 2045 21138 0.5 0
ABOUT
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell - CC Lab-2
(.venv) PS C:\Users\rithv\SEM6\CC\PES2UG23CS485\CC Lab-2> locust -f locust/events_locustfile.py
[2026-01-20 15:10:20,531] Rithvik_Yoga/INFO/locust.main: Starting web interface at http://localhost:8089, press enter to open your default browser.
[2026-01-20 15:10:54,916] Rithvik_Yoga/INFO/locust.runners: Ramping to 1 users at a rate of 1.00 per second
KeyboardInterrupt
2026-01-20T09:41:06Z
[2026-01-20 15:11:06,296] Rithvik_Yoga/INFO/locust.main: Shutting down (exit code 0)
Type Name # reqs # fails | Avg Min Max Med | req/s failures/s
GET /events?user=locust_user 7 0(0.00%) | 299 6 2044 10 | 0.63 0.00
Aggregated 7 0(0.00%) | 299 6 2044 10 | 0.63 0.00
Response time percentiles (approximated)
Type Name 50% 66% 75% 80% 90% 95% 98% 99% 99.9% 99.99% 100% # reqs
GET /events?user=locust_user 10 10 10 10 2000 2000 2000 2000 2000 2000 2000 7
Aggregated 10 10 10 10 2000 2000 2000 2000 2000 2000 2000 7
(.venv) PS C:\Users\rithv\SEM6\CC\PES2UG23CS485\CC Lab-2>

Ss8


localhost:8089
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 6 0 86 2100 2100 430.1 78 2145 3144 0.57 0
Aggregated 6 0 86 2100 2100 430.1 78 2145 3144 0.57 0
ABOUT
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell - CC Lab-2
File "C:\Users\rithv\SEM6\CC\PES2UG23CS485\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
KeyboardInterrupt
2026-01-20T09:42:37Z
[2026-01-20 15:12:37,189] Rithvik_Yoga/INFO/locust.main: Shutting down (exit code 0)
Type Name # reqs # fails | Avg Min Max Med | req/s failures/s
GET /my-events?user=locust_user 6 0(0.00%) | 430 78 2144 86 | 0.61 0.00
Aggregated 6 0(0.00%) | 430 78 2144 86 | 0.61 0.00
Response time percentiles (approximated)
Type Name 50% 66% 75% 80% 90% 95% 98% 99% 99.9% 99.99
% 100% # reqs
GET /my-events?user=locust_user 94 94 95 95 2100 2100 2100 2100 2100 210
0 2100 6
Aggregated 94 94 95 95 2100 2100 2100 2100 2100 210
0 2100 6

Ss9



Route: `/events`

Bottleneck:
A CPU-intensive loop (`for i in range(3000000)`) was executed on every request, even though its result was not used. This caused unnecessary blocking of the FastAPI server.

Change Made:
Removed the unnecessary loop from the route.

Why Performance Improved:
Eliminating the loop reduced CPU usage and request processing time, allowing the server to respond immediately without blocking other requests.

Route: `/my-events`

Bottleneck:
A dummy loop (`for _ in range(1500000)`) performed meaningless computations, increasing response time for each request.

Change Made:
Removed the redundant loop from the route.

Why Performance Improved:
Removing the loop prevented wasteful CPU consumption, significantly reducing latency and improving scalability under multiple users.

Github repo -> https://github.com/rtk5/PES2UG23CS485-CC-LAB-2