Department of Computer Science and Engineering

UE23CS351B Cloud Computing

Lab 2 Submission

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Section	L
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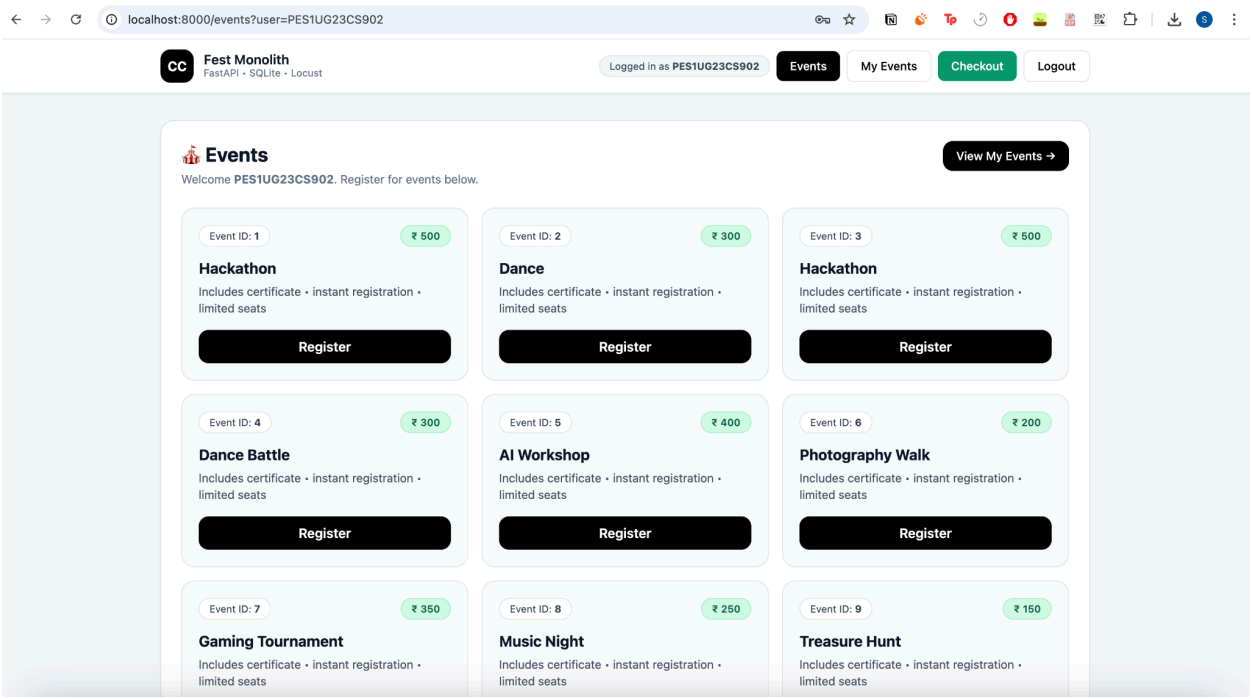
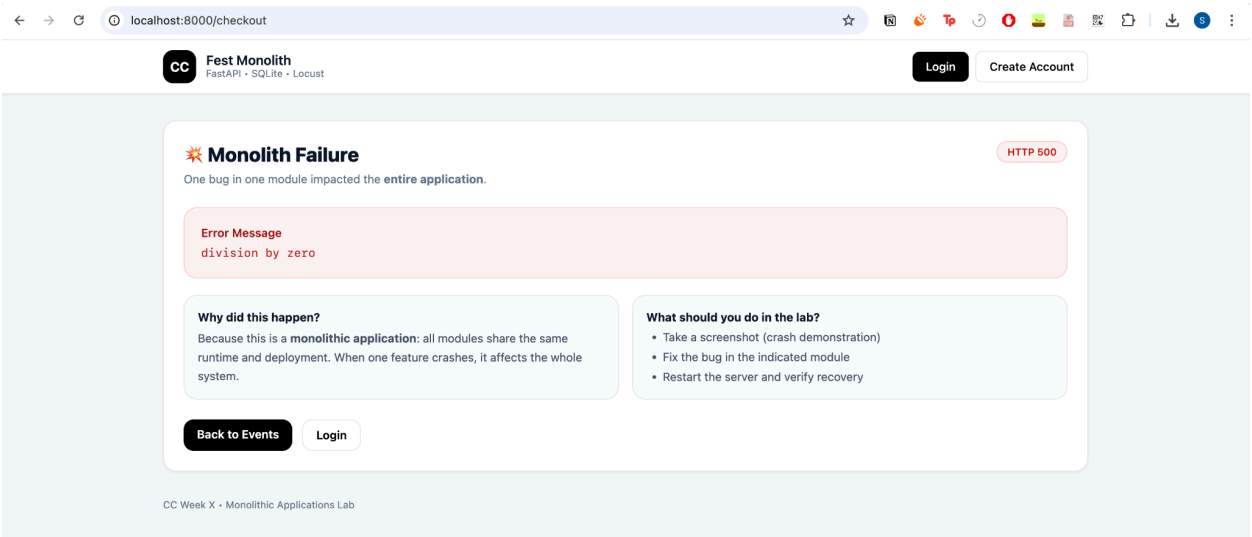
Screenshot SS1

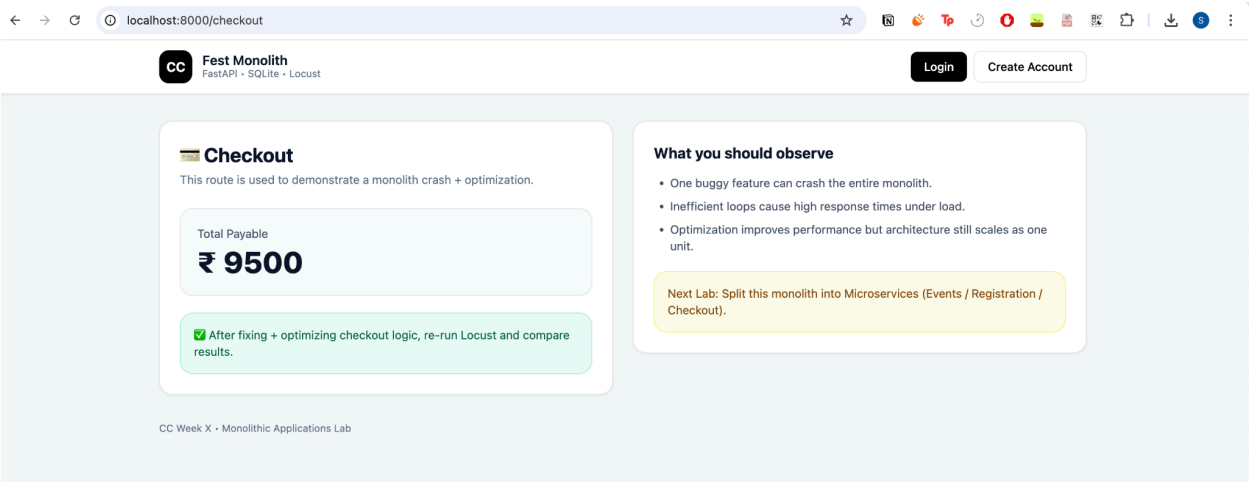


Screenshot SS2

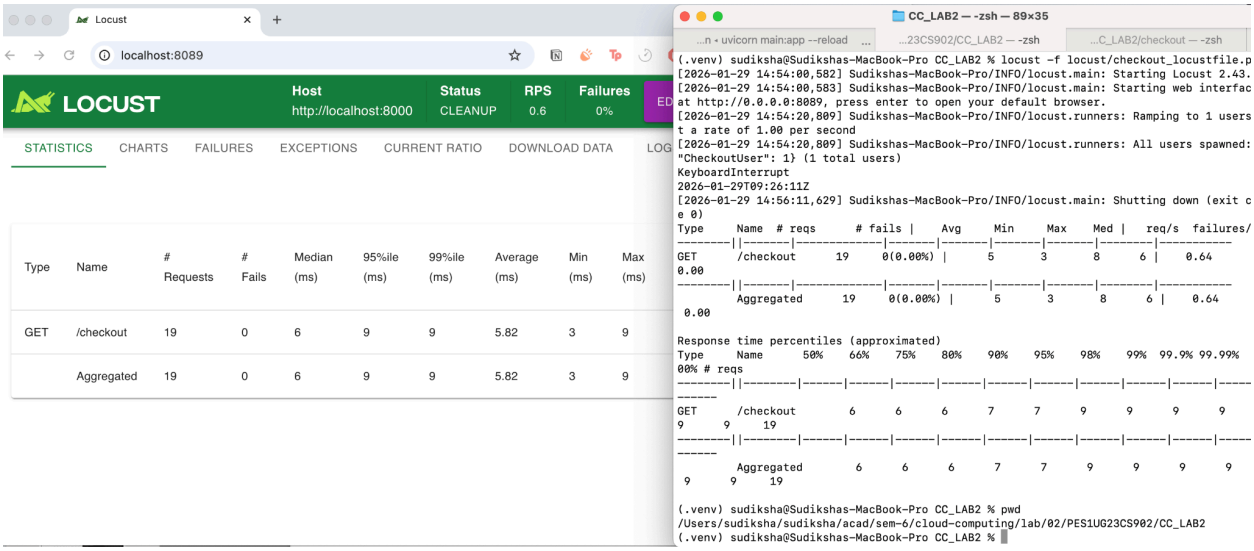



```
INFO:     127.0.0.1:49593 - "GET /events?user=PES1UG23CS902 HTTP/1.1" 200 OK
INFO:     127.0.0.1:49656 - "GET /checkout HTTP/1.1" 500 Internal Server Error
ERROR:    Exception in ASGI application
Traceback (most recent call last):
```

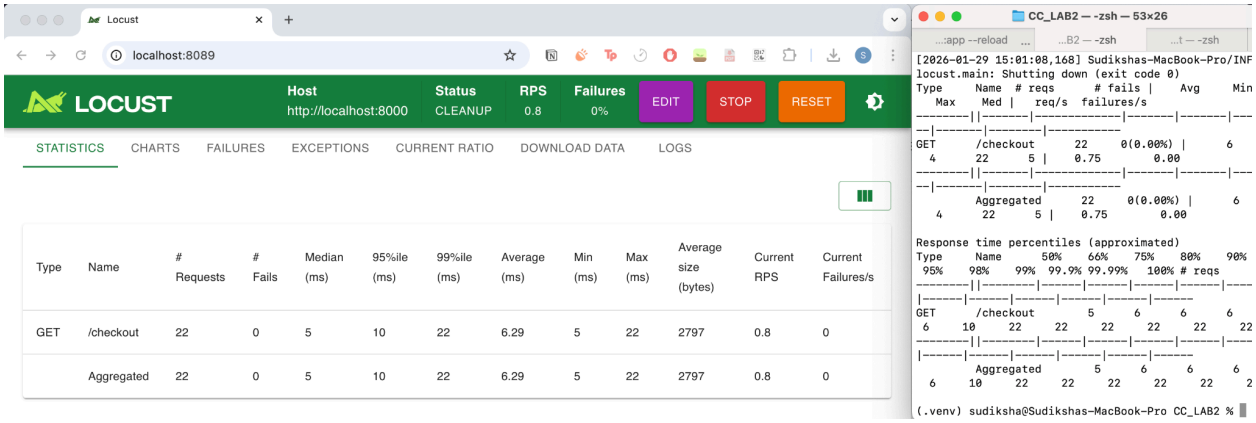
Screenshot SS3



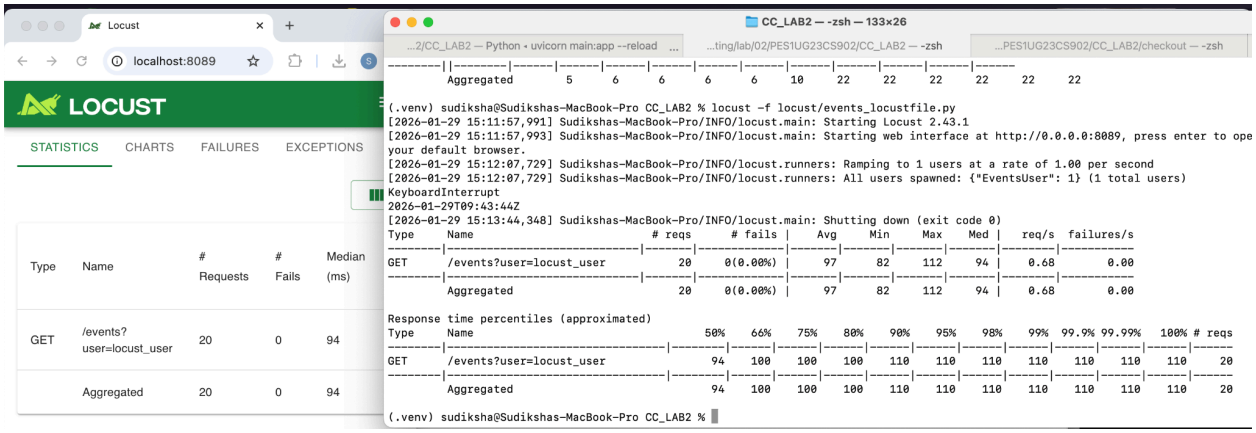
Screenshot SS4



Screenshot SS5

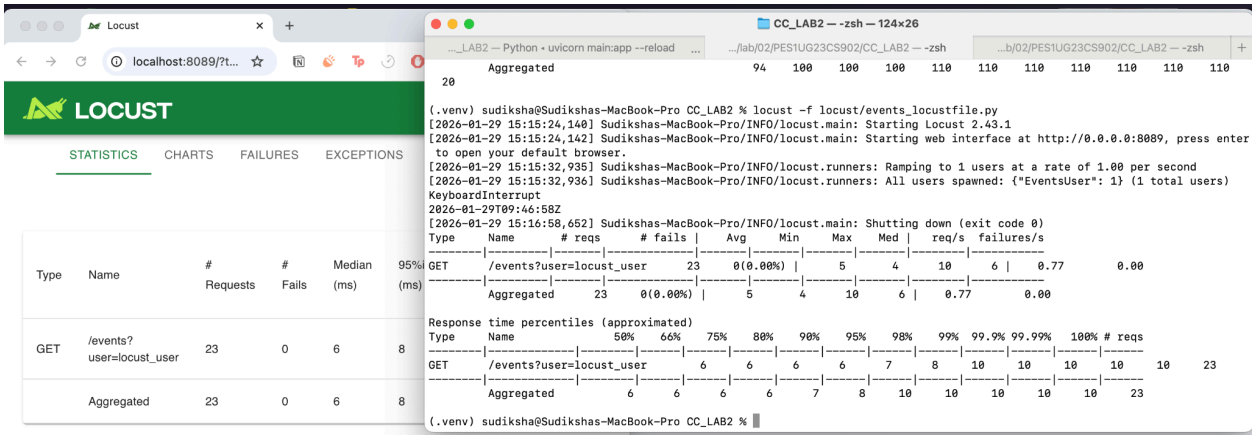


Screenshot SS6

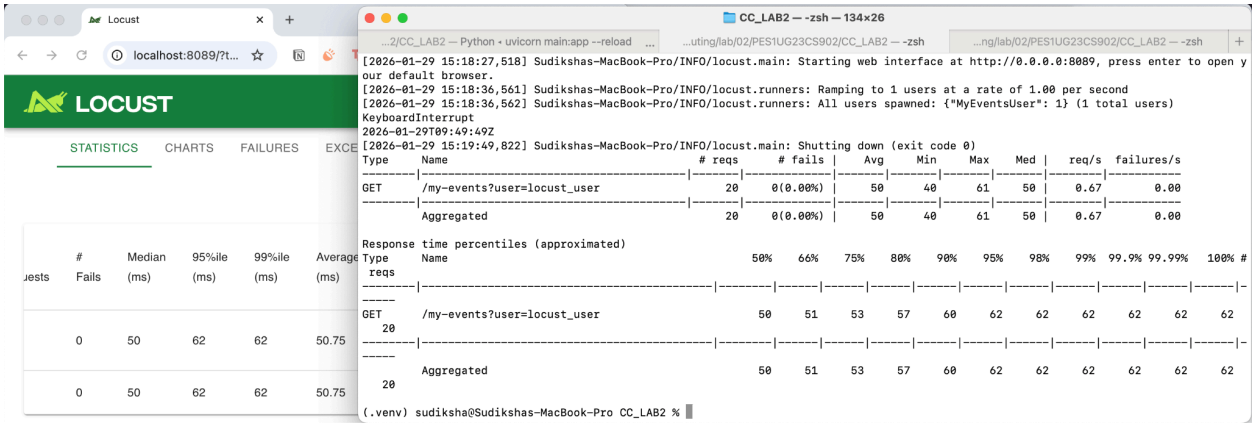


Optimisation: removed for loop that updated variable ‘waste’ over several iterations

Screenshot SS7

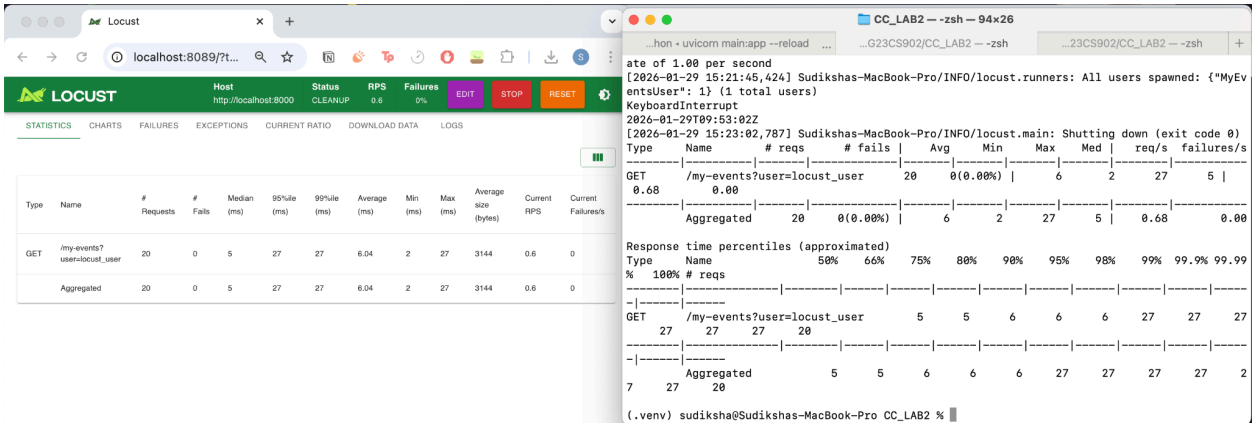


Screenshot SS8



Optimised code: removed for loop that updated variable ‘dummy’

Screenshot SS9



Explanation of optimisations:

Route 1: /events

Bottleneck: The function contained a CPU-intensive for loop iterating 3,000,000 times to calculate a waste variable, which served no functional purpose.
Change: The unnecessary loop and the waste variable calculation were completely removed.
I**mprovement:** Removing the loop eliminated the artificial CPU processing delay, allowing the server to return the template response immediately after fetching data from the database. Reduced from an Average of 97 to 23

Route 2: /my-events

Bottleneck: The function included a for loop iterating 1,500,000 times to increment a dummy variable, creating an artificial delay.
Change: The dummy variable loop was identified as dead code and removed.
Why it improved: By removing the blocking loop, the request handling time was reduced to just the database query and template rendering time, significantly lowering latency from an average of 50ms to 6ms