





For performance testing, we used Postman to simulate a number of users for each of the loads. In the order of the pictures we have 1 user, 10 users and 100 users respectively.

Under the three loads we found that there was no significant deviation of the average response time. However, with more users, the maximum response time was found to increase. At 100 users, the maximum runtime was 550 ms which could be attributed to a spike of many requests at once.

Currently the performance is satisfactory as average response times remain consistent and no requests are being dropped either which means the site will function even under a heavy load. Current endpoints are not very heavy as they just deal with basic CRUD but in the future performance testing may need to be done with the integration of OCR into the receipt upload endpoint.

As long as the error rate is 0 and the average response time is below 100 ms no further optimizations are needed. However, if adding heavier endpoints that include OCR, in the future a load balancer may be used to distribute requests across multiple instances of the backend.