Test Report

1. The code was tested using Postman for individual test and debugging; and loadtest for performance test. Those two software were used to send continuous requests to the nodejs backend.
2. The performance testing of the /postmessage route, which is responsible for handling posting new post is shown in picture 1. As stated, the longest request only took 49ms.

Graphical user interface, text

Description automatically generated

Picture 1. Performance test for /postmessage

1. The size of data does impact the performance of the server. But for an application at this scale, the data must be very large to have any significant effect. The performance test for a longer data is shown in picture 2. The result is nearly identical to the previous result.

A picture containing graphical user interface

Description automatically generated

Picture 2. Performance test for larger data submitted

1. The number of requests directly affect the performance of the server. The server takes longer to response to all request the more requests it received, assuming that the concurrency and data are the same across tests. However, the time taken to respond to a single request appears to be similar regardless of the total requests sent, demonstrated in 2 pictures below.

A picture containing graphical user interface

Description automatically generated

Graphical user interface, text

Description automatically generated

1. The concurrency directly affects the performance of the server. The server responses to all requests faster the more concurrency level it uses, assuming that the number of requests and data are the same across tests. However, the time taken to respond to a single request appears to be similar regardless of the concurrency, demonstrated in 2 pictures below.

Graphical user interface, text

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Graphical user interface, text

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