

## CHAPTER 6

### CONCLUSION

From the tests that have been conducted to compare monolith architecture and microservice architecture, it could answer the problem formulations that have been discussed in chapter 1, the first problem formulation discusses how microservice architecture average response time when there are a lot of users accessing the application compared to monolithic architecture. The testing plan configuration with 100, 200 and 500 total request is conducted to simulate a situation when there are a lot of users accessing the application, the average response time from microservice architecture is dominantly higher in 3 test scenarios, this can also answer the second problem formulation, that in this project the microservice architecture cant have a lower average response time than monolith architecture. The third problem formulation discusses how the amount of data affects both architecture performance, that in this project the amount of data affects both architecture but only if all the requests are accepted, because if there are some failed requests, the average response time tends to show some inconsistency.

For future research, the future researcher could use better hardware for example use RAM more than 8 GB or use the latest generation of processor to test the application at higher threads and attempt to do various testing configurations and scenarios. Adding more features, using another framework beside Go-Kit and using various database systems to both architectures can be done to add more variations and complexity.