

HOMWORK 4

Welcome to your homework, here are the following are the **rules** of submitting homework:

- You have to submit the code/report in **PDF**, compiled from **Markdown**. Any report written in word document or so will be discarded and score 0.
 - You have to submit your homework via Email to ncuhomework@outlook.com.
 - Your Email subject shall be **Course Z6110X0035 CC+Homework #+{Your Name}+{Your ID}**. For example, if I submit a homework, my Email subject is Course Z6110X0035 CC Homework 4 Zichen Xu 1234556678.
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Assignment

Messaging in Docker images

A messaging queue is used to store and communicate between threads. Message queues and mailboxes are software-engineering components used for inter-process communication (IPC), or for inter-thread communication within the same process. They use a queue for messaging – the passing of control or of content. Group communication systems provide similar kinds of functionality.

This time you need to run RabbitMQ to realize a message exchanging between docker microservices. To understand the message exchange in micro services, check [this](#).

Now you need to configure and build RabbitMQ to exchange messages between all docker images in your previous setup, including but not limited to text, text files, image files, and/or videos.

Some general hints on RabbitMQ can be found in here [RabbitMQ](#)

You may need to learn language Go for understanding RabbitMQ, the documents can be found [here](#).

To test your Messaging Queue performance, check [MQ performance Test](#).

IMPORTANT NOTE:

- Submit a report of your procedure running your RabbitMQ.
 - Submit your code file of RabbitMQ
 - Submit a test report of your RabbitMQ while running different test cases (correct/incorrect inputs).
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