Assignment 2

Deadline: Aug 15, 2023

Queue Management and Networking

# Task:

In this task, we will use the RabbitMQ queues for pushing and popping the data using producer-consumer message transfer model.

In this task, instead of using multi-threading we will go for multi-processing. First of all learn how to create consumer and producer for RabbitMQ server using pika client.

Afterwards, create two services, service A and service B. Service A will produce the data to Queue-1 and Service B will consume that data from that queue. Then Service B will produce its data into Queue-2 and Service A will consume the data from that queue. Both services will perform the operation as described below.

Service A will first perform the multiplication with variable ‘B’.

Service B will then square the number.

This process should keep repeating for n iterations where n is max\_iterations input by the user.

(initially)

(later)

Order of execution of services should be, service A, service B, service A, service B and so on. Make sure to utilize concept of synchronization to make sure order in which services execute should not change from what is described. Notice here we are performing synchronization over processes not on threads.