

# Cloud Computing Laboratory Week-6

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Sem: 6 Section: D

Roll No.: 6

## Task 1: Work Queues

```
File Edit View Search Terminal Help
producer_1 [x] Sent 'Hello! My SRN is <<PES1201800102>>7'
producer_1 [x] Sent 'Hello! My SRN is <<PES1201800102>>8'
producer_1 [x] Sent 'Hello! My SRN is <<PES1201800102>>9'
producer_1 [x] Sent 'Hello! My SRN is <<PES1201800102>>10'
producer_1 [x] Sent 'Hello! My SRN is <<PES1201800102>>11'
producer_1 [x] Sent 'Hello! My SRN is <<PES1201800102>>12'
producer_1 [x] Sent 'Hello! My SRN is <<PES1201800102>>13'
consumer_3 [x] Received 'Hello! My SRN is <<PES1201800102>>1'
consumer_3 [x] Done
consumer_2 [x] Received 'Hello! My SRN is <<PES1201800102>>2'
consumer_2 [x] Done
producer_1 [x] Sent 'Hello! My SRN is <<PES1201800102>>14'
rmq_1 2021-02-23 06:59:20.329 [info] <0.673.0> closing AMQP
connection <0.673.0> (172.19.0.6:42468 -> 172.19.0.2:5672, vhost:
'/', user: 'guest')
consumer_1 [x] Received 'Hello! My SRN is <<PES1201800102>>7'
consumer_1 [x] Done
consumer_3 [x] Received 'Hello! My SRN is <<PES1201800102>>4'
consumer_3 [x] Done
consumer_3 [x] Received 'Hello! My SRN is <<PES1201800102>>9'
consumer_3 [x] Done
consumer_2 [x] Received 'Hello! My SRN is <<PES1201800102>>5'
consumer_2 [x] Done
consumer_4 [x] Received 'Hello! My SRN is <<PES1201800102>>6'
consumer_4 [x] Done
consumer_4 [x] Received 'Hello! My SRN is <<PES1201800102>>8'
consumer_4 [x] Done
consumer_4 [x] Received 'Hello! My SRN is <<PES1201800102>>12'
consumer_4 [x] Done
consumer_4 [x] Received 'Hello! My SRN is <<PES1201800102>>14'
consumer_4 [x] Done
consumer_3 [x] Received 'Hello! My SRN is <<PES1201800102>>10'
consumer_2 [x] Received 'Hello! My SRN is <<PES1201800102>>11'
consumer_2 [x] Done
consumer_3 [x] Done
consumer_1 [x] Received 'Hello! My SRN is <<PES1201800102>>13'
consumer_1 [x] Done
source_producer_1 exited with code 0
```

```

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consumer_4 | [x] Received 'Hello! My SRN is <<PES1201800102>>12'
consumer_4 | [x] Done
consumer_4 | [x] Received 'Hello! My SRN is <<PES1201800102>>14'
consumer_4 | [x] Done
consumer_3 | [x] Received 'Hello! My SRN is <<PES1201800102>>10'
consumer_2 | [x] Received 'Hello! My SRN is <<PES1201800102>>11'
consumer_2 | [x] Done
consumer_3 | [x] Done
consumer_1 | [x] Received 'Hello! My SRN is <<PES1201800102>>13'
consumer_1 | [x] Done
source_producer_1 exited with code 0
^CGracefully stopping... (press Ctrl+C again to force)
Stopping source_consumer_3 ... done
Stopping source_consumer_1 ... done
Stopping source_consumer_2 ... done
Stopping source_consumer_4 ... done
Stopping source_rm_q_1 ... done
$ docker ps -a
CONTAINER ID   IMAGE                                COMMAND                  CREATED          STATUS          PORTS          NAMES
5747d8d75ff8   source_consumer                      "sh -c 'sleep 15 && ..."  About a minute ago  Exited (137) 11 seconds ago  source_consumer_3
06d6e7c33abd   source_consumer                      "sh -c 'sleep 15 && ..."  About a minute ago  Exited (137) 11 seconds ago  source_consumer_1
72cd9889c45d   source_consumer                      "sh -c 'sleep 15 && ..."  About a minute ago  Exited (137) 11 seconds ago  source_consumer_2
9b3b749b3e04   source_producer                      "sh -c 'sleep 20 && ..."  About a minute ago  Exited (0) 36 seconds ago  source_producer_1
a7062ac0a113   source_consumer                      "sh -c 'sleep 15 && ..."  About a minute ago  Exited (137) 11 seconds ago  source_consumer_4
9338dce0a99d   rabbitmq:3.8.3-alpine               "docker-entrypoint.s..."  About a minute ago  Exited (0) 5 seconds ago  source_rm_q_1
q_1
$ 

```

```
File Edit View Search Terminal Help
GNU nano 5.4 docker-compose.yml
version: '3.1'
services:
  rmq:
    image: rabbitmq:3.8.3-alpine

  producer:
    build:
      context: send
      dockerfile: Dockerfile

    command: sh -c "sleep 20 && python source.py"

    links:
      - rmq

    depends_on:
      - rmq

  consumer:
    build:
      context: receive
      dockerfile: Dockerfile

    command: sh -c "sleep 15 && python receive.py"

    links:
      - rmq

    depends_on:
      - rmq
    restart: on-failure

[ Read 33 lines ]
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify
```



## Task 2: Publish / Subscribe

```
File Edit View Search Terminal Help
QP connection <0.481.0> (172.19.0.3:44488 -> 172.19.0.2:5672)
rmq_1 | 2021-02-24 00:53:38.646 [info] <0.481.0> connection <
0.481.0> (172.19.0.3:44488 -> 172.19.0.2:5672): user 'guest' authen
ticated and granted access to vhost '/'
consumer_4 | [*] Waiting for logs. To exit press CTRL+C
rmq_1 | 2021-02-24 00:53:39.192 [info] <0.497.0> accepting AM
QP connection <0.497.0> (172.19.0.5:38720 -> 172.19.0.2:5672)
rmq_1 | 2021-02-24 00:53:39.196 [info] <0.497.0> connection <
0.497.0> (172.19.0.5:38720 -> 172.19.0.2:5672): user 'guest' authen
ticated and granted access to vhost '/'
consumer_1 | [*] Waiting for logs. To exit press CTRL+C
rmq_1 | 2021-02-24 00:53:40.052 [info] <0.514.0> accepting AM
QP connection <0.514.0> (172.19.0.6:43770 -> 172.19.0.2:5672)
rmq_1 | 2021-02-24 00:53:40.059 [info] <0.514.0> connection <
0.514.0> (172.19.0.6:43770 -> 172.19.0.2:5672): user 'guest' authen
ticated and granted access to vhost '/'
consumer_3 | [*] Waiting for logs. To exit press CTRL+C
rmq_1 | 2021-02-24 00:53:40.616 [info] <0.531.0> accepting AM
QP connection <0.531.0> (172.19.0.7:33370 -> 172.19.0.2:5672)
rmq_1 | 2021-02-24 00:53:40.622 [info] <0.531.0> connection <
0.531.0> (172.19.0.7:33370 -> 172.19.0.2:5672): user 'guest' authen
ticated and granted access to vhost '/'
consumer_2 | [*] Waiting for logs. To exit press CTRL+C
rmq_1 | 2021-02-24 00:53:45.751 [info] <0.552.0> accepting AM
QP connection <0.552.0> (172.19.0.8:54908 -> 172.19.0.2:5672)
rmq_1 | 2021-02-24 00:53:45.758 [info] <0.552.0> connection <
0.552.0> (172.19.0.8:54908 -> 172.19.0.2:5672): user 'guest' authen
ticated and granted access to vhost '/'
producer_1 | [x] Sent 'info: Hello World! SRN: PES1201800102!'
consumer_2 | [x] b'info: Hello World! SRN: PES1201800102!'
consumer_4 | [x] b'info: Hello World! SRN: PES1201800102!'
consumer_3 | [x] b'info: Hello World! SRN: PES1201800102!'
consumer_1 | [x] b'info: Hello World! SRN: PES1201800102!'
consumer_5 | [x] b'info: Hello World! SRN: PES1201800102!'
rmq_1 | 2021-02-24 00:53:45.771 [info] <0.552.0> closing AMQP
connection <0.552.0> (172.19.0.8:54908 -> 172.19.0.2:5672, vhost:
'/', user: 'guest')
source_producer_1 exited with code 0
```

File Edit View Search Terminal Help

\$ **docker** ps -a

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
7d18e361a150	source_producer	"sh -c 'sleep 20 && ...'"	Abo	Exited (0) 46 seconds ago		source_pr
018d2f372b0f	source_consumer	"sh -c 'sleep 15 && ...'"	18	Exited (137) 18 seconds ago		source_co
b5ad8e5d3a19	source_consumer	"sh -c 'sleep 15 && ...'"	18	Exited (137) 18 seconds ago		source_co
a56addd226c3	source_consumer	"sh -c 'sleep 15 && ...'"	18	Exited (137) 18 seconds ago		source_co
474a932b5e75	source_consumer	"sh -c 'sleep 15 && ...'"	18	Exited (137) 18 seconds ago		source_co
b3d6b28b6d1e	source_consumer	"sh -c 'sleep 15 && ...'"	18	Exited (137) 18 seconds ago		source_co
9338dce0a99d	rabbitmq:3.8.3-alpine	"docker-entrypoint.s..."	18	Exited (0) 11 seconds ago		source_rm

q\_1  
\$