

**UNIVERSIDAD MAYOR REAL Y PONTIFICIA
DE SAN FRANCISCO XAVIER DE CHUQUISACA
FACULTAD DE CIENCIAS Y TECNOLOGÍA**



PRÁCTICA 6 RABBITMQ

CARRERA: INGENIERÍA DE SISTEMAS

MATERIA: MICROSERVICIOS (COM600)

DOCENTE: ING. CARLOS MONTELLANO

UNIVERSITARIOS: TORRES LOAYZA ALBERTO ANTONIO

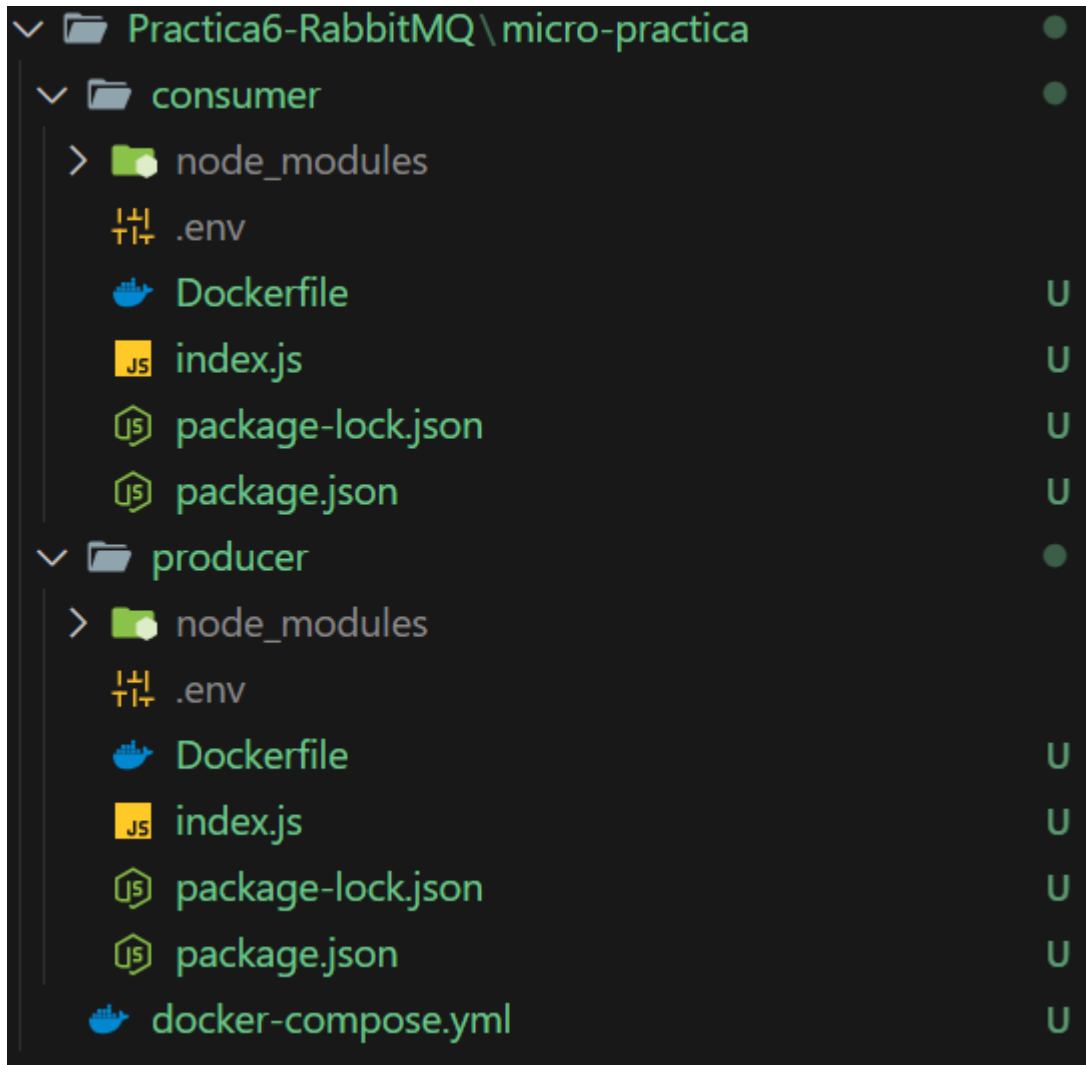
FECHA: 01/10/2025

GESTIÓN: 2/2025

SUCRE – BOLIVIA

PRÁCTICA RABBITMQ

Estructura del proyecto:



1. Dockerizar los microservicios

| | | | | | | | | | | |
|--------------------------|--|------------|--------------|---|-------|----------|--|--|--|--|
| <input type="checkbox"/> | | rabbitmq | d5629b27199c | rabbitmq:3- 15672:15672 | 1.95% | 147.9MB | | | | |
| <input type="checkbox"/> | | consumer-1 | 34a2180f4e27 | micro-pract | 0% | 10.95MB | | | | |
| <input type="checkbox"/> | | producer-1 | ec8c083c7a57 | micro-pract 3000:3000 | 0% | 15.4MB / | | | | |

Archivo docker-compose.yml:

```
version: "3.8"

services:
  rabbitmq:
    image: rabbitmq:3-management
```

```

container_name: rabbitmq
ports:
  - "5672:5672"      # AMQP
  - "15672:15672"    # UI de administración
environment:
  RABBITMQ_DEFAULT_USER: guest
  RABBITMQ_DEFAULT_PASS: guest
healthcheck:
  test: ["CMD", "rabbitmq-diagnostics", "ping"]
  interval: 10s
  timeout: 5s
  retries: 5
restart: unless-stopped

producer:
  build:
    context: ./producer
    dockerfile: Dockerfile
  env_file:
    - ./producer/.env
  depends_on:
    rabbitmq:
      condition: service_healthy
  ports:
    - "3000:3000"    # API REST
  restart: unless-stopped

consumer:
  build:
    context: ./consumer
  env_file:
    - ./consumer/.env
  depends_on:
    rabbitmq:
      condition: service_healthy
  restart: unless-stopped

```

2. Corrida del proyecto

Registro de usuario por Postman:



The screenshot displays a REST client interface with the following details:

- URL:** `http://localhost:3000/register`
- Method:** `POST`
- Body Type:** `raw` (selected)
- Request Body:**

```
1 {  
2   "name": "Priscila",  
3   "email": "priscila@gmail.com",  
4   "cell": "876543219"  
5 }
```
- Response Body:**

```
1 {  
2   "ok": true,  
3   "user": {  
4     "id": 1759372754959,  
5     "name": "Priscila",  
6     "email": "priscila@gmail.com",  
7     "cell": "876543219",  
8     "createdAt": "2025-10-02T02:39:14.959Z"  
9   }  
10 }
```

Logs del contenedor de consumer:

<  **micro-practica-consumer-1**
34a2180f4e27  [micro-practica-consumer:latest](#)

Logs Inspect Bind mounts Exec Files Stats

```
[dotenv@17.2.3] injecting env (0) from .env -- tip: ⚙ specify custom .env file path with { path: '/custom/path/.env' }  
Esperando mensajes en la cola: email_queue  
Mensaje recibido: {  
  type: 'NEW_USER',  
  user: {  
    id: 1759348489651,  
    name: 'Juan Perez',  
    email: 'juan.perez@example.com',  
    cell: '70000000',  
    createdAt: '2025-10-01T19:54:49.651Z'  
  }  
}  
Simulando envio de correo a: juan.perez@example.com (nombre:  
Juan Perez)  
Correo "enviado" a juan.perez@example.com (simulado)  
Mensaje recibido: {  
  type: 'NEW_USER',  
  user: {  
    id: 1759372754959,  
    name: 'Priscila',  
    email: 'priscila@gmail.com',  
    cell: '876543219',  
    createdAt: '2025-10-02T02:39:14.959Z'  
  }  
}  
Simulando envio de correo a: priscila@gmail.com (nombre:  
Priscila)  
Correo "enviado" a priscila@gmail.com (simulado)
```

Cola en RabbitMQ:

RabbitMQ Management localhost:3000/users

localhost:15672/#/queues

Refreshed 2025-10-01 22:57:02 Refresh every 5 seconds

26.2.5.15 RabbitMQ 3.13.7 Erlang Virtual host All Cluster rabbit@d5629b27199c User guest Log out

Overview Connections Channels Exchanges **Queues and Streams** Admin

Queues

▼ All queues (1)

Pagination

Page 1 of 1 - Filter: ☐ Regex ? Displaying 1 item , page size up to: 100

| Overview | | | | | Messages | | | Message rates | | |
|--------------|-------------|---------|----------|---------|----------|---------|-------|---------------|---------------|--------|
| Virtual host | Name | Type | Features | State | Ready | Unacked | Total | incoming | deliver / get | ack |
| / | email_queue | classic | D | running | 0 | 0 | 0 | 0.00/s | 0.00/s | 0.00/s |

► Add a new queue

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[Discussions](#) [Discord](#) [Plugins](#) [GitHub](#)

Usuarios creados:

RabbitMQ Management localhost:3000/users

localhost:3000/users

Pretty-print ☒

```
[
  {
    "id": 1759348489651,
    "name": "Juan Perez",
    "email": "juan.perez@example.com",
    "cell": "70000000",
    "createdAt": "2025-10-01T19:54:49.651Z"
  },
  {
    "id": 1759372754959,
    "name": "Priscila",
    "email": "priscila@gmail.com",
    "cell": "876543219",
    "createdAt": "2025-10-02T02:39:14.959Z"
  }
]
```