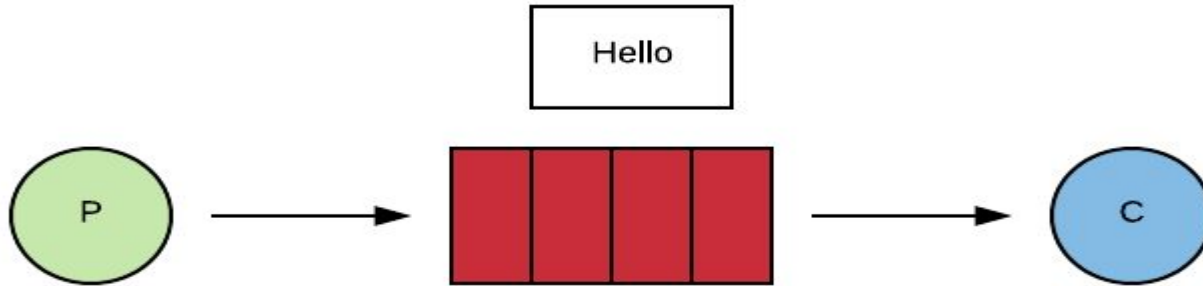# CS 336 Final Project-Messages Broadcasting
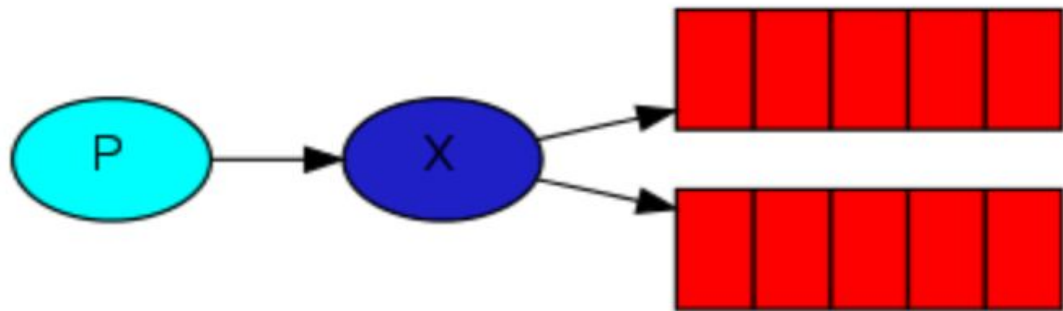
Maggie Lu

CloudAMQP

- CloudAMQP is hosted RabbitMQ servers (message queues) that lets you pass messages between processes and other systems.
- CloudAMQP is offered by a small but stable, committed and hardworking team from Sweden.
- https://www.cloudamqp.com/

- In the diagram below, "P" is our producer and "C" is our consumer. The box in the middle is a queue - a message buffer that RabbitMQ keeps on behalf of the consumer.

Sending messages to many consumers at once

- The core idea in the messaging model in RabbitMQ is that the producer never sends any messages directly to a queue.
- Instead, the producer can only send messages to an *exchange*. An exchange is a very simple thing.
  - The fanout exchange is very simple.
  - It broadcasts all the messages it receives to all the queues it know

Using CloudAMQP

Using Localhost

```python
#!/usr/bin/env python

import pika

connection = pika.BlockingConnection(pika.ConnectionParameters('localhost'))

channel = connection.channel()
```

Using CloudAMQP

```python
import pika
import sys

url = "amqp://tafzfptx:lRrZ2PMfADB1Rq7zUHIs7J4dzkpTXQ1x@otter.rmq.cloudamqp.com/tafzfptx";
params = pika.URLParameters(url);
connection = pika.BlockingConnection(params)

channel = connection.channel()
```

Send.py

```
[Maggies-MacBook-Pro:finalproject maggie$ python emit_log.py
 [x] Sent 'info: Hello World!'
[Maggies-MacBook-Pro:finalproject maggie$ python emit_log.py message1
 [x] Sent 'message1'
[Maggies-MacBook-Pro:finalproject maggie$ python emit_log.py another message
 [x] Sent 'another message'
[Maggies-MacBook-Pro:finalproject maggie$ python emit_log.py cs336
 [x] Sent 'cs336'
[Maggies-MacBook-Pro:finalproject maggie$ python emit_log.py final project
 [x] Sent 'final project'
[Maggies-MacBook-Pro:finalproject maggie$ python emit_log.py meesage sent
 [x] Sent 'meesage sent'
[Maggies-MacBook-Pro:finalproject maggie$ python emit_log.py meesage received?
 [x] Sent 'meesage received?'
Maggies-MacBook-Pro:finalproject maggie$
```

Receiver 1

```
[Maggies-MacBook-Pro:finalproject maggie$ python receive_log.py
 [*] Waiting for logs. To exit press CTRL+C
 [x] 'info: Hello World!'
 [x] 'message1'
 [x] 'another message'
 [x] 'cs336'
 [x] 'final project'
 [x] 'meesage sent'
 [x] 'meesage received?'
```

Receiver 2

```
[Maggies-MacBook-Pro:finalproject maggie$ python receive_log.py
 [*] Waiting for logs. To exit press CTRL+C
 [x] 'info: Hello World!'
 [x] 'message1'
 [x] 'another message'
 [x] 'cs336'
 [x] 'final project'
 [x] 'meesage sent'
 [x] 'meesage received?'
 ⃞
```

Activity in CloudAMQP