RabbitMQ -

→ It is a message broker that implements different protocols, most importantly it implements the AMQP (Advance message Queuing Protocol).

→ Producers produces message, then RabbitMQ take that and passes to the consumers (consumes the message from producers).

→ How the broker works:

The broker has three components

(1) Exchange (3) BINDing

(2) Queue

(1) Exchange: This component receives messages from the producers and then routes these messages to the queue.

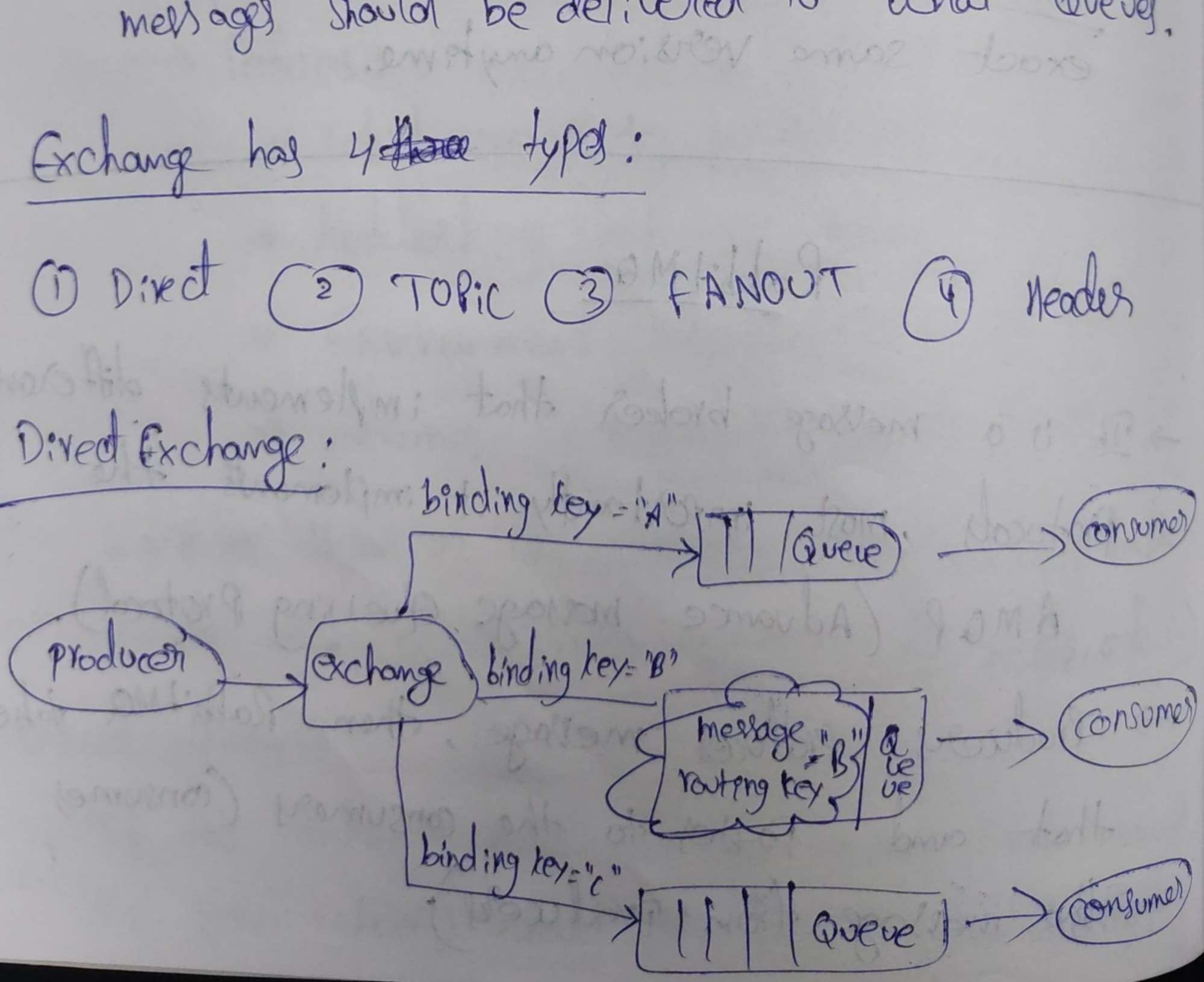
(2) Queue: It is a datastructure on disk or in memory that stores messages.

(3) Binding: It is a connection between exchange and a queue which tells an exchange what messages should be delivered to what queues.

Exchange has 4 ~~three~~ types:

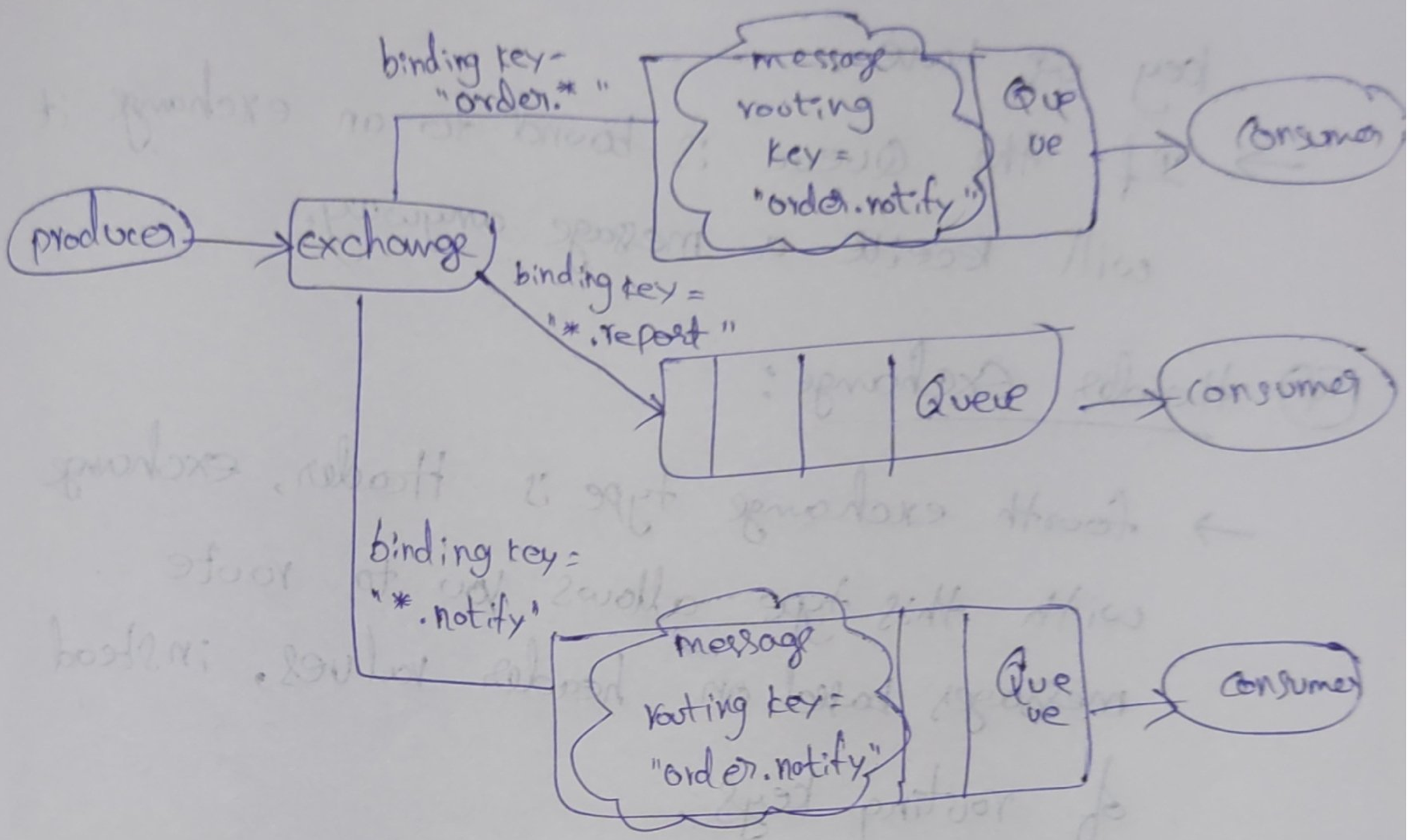
(1) Direct (2) TOPIC (3) FANOUT (4) Header

(1) Direct Exchange:



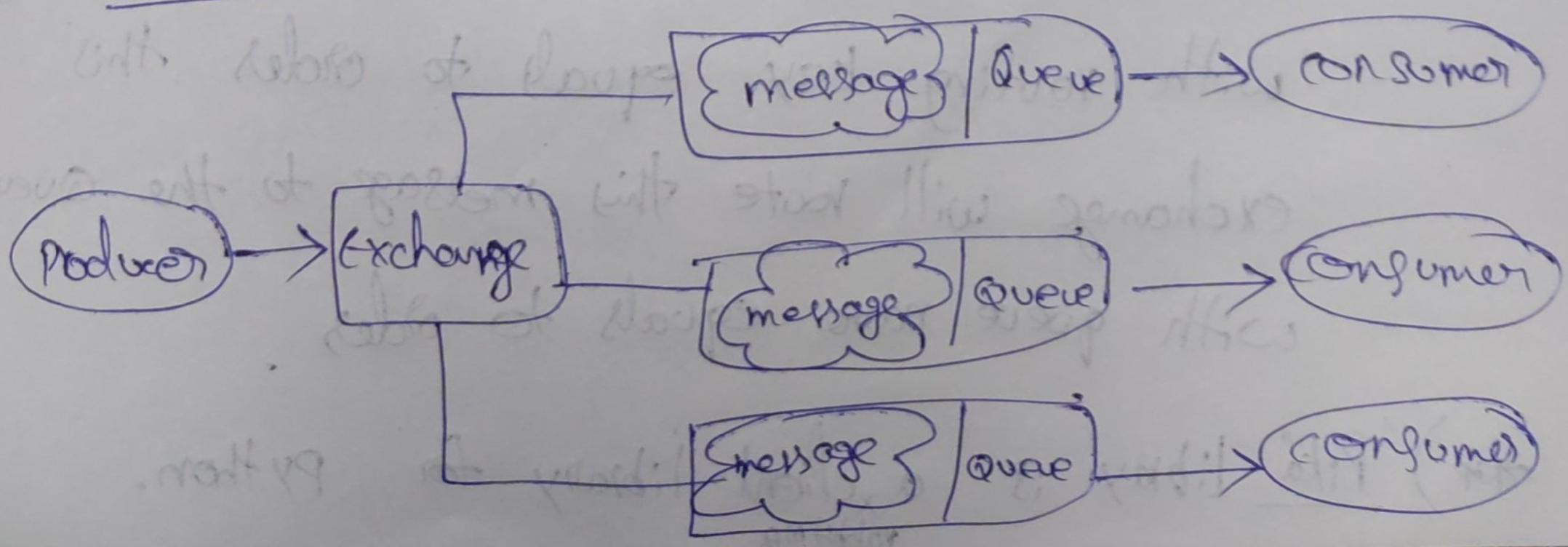
→ first exchange type is direct and an exchange with this type sends messages to the queue where routing key == binding key.

(2) Topic Exchange:



→ second exchange type is topic, this type sends messages to the Queues where routing key partially match the binding key.

(3) fanout Exchange:



→ Third exchang type is fanout, this type sends messages to all the Queues that it knows about,

→ It does not matter what routing key we have and it does not have matter what binding key we have.

→ If the Queue is bound to an exchange it will receive a message anyway.

(4) Header exchange:

→ fourth exchange type is Header, exchange with this type allows you to route messages based on header values, instead of routing keys.

**) RabbitMQ has nameless exchange by default and this exchange compares routing key to queue name instead of binding key, so if you Publish a message to this nameless exchange with routing key equals to orders this exchange will route this message to the Queue with queue name equals to orders.

**) "Pika" library is a client library for python.
rabbitmq