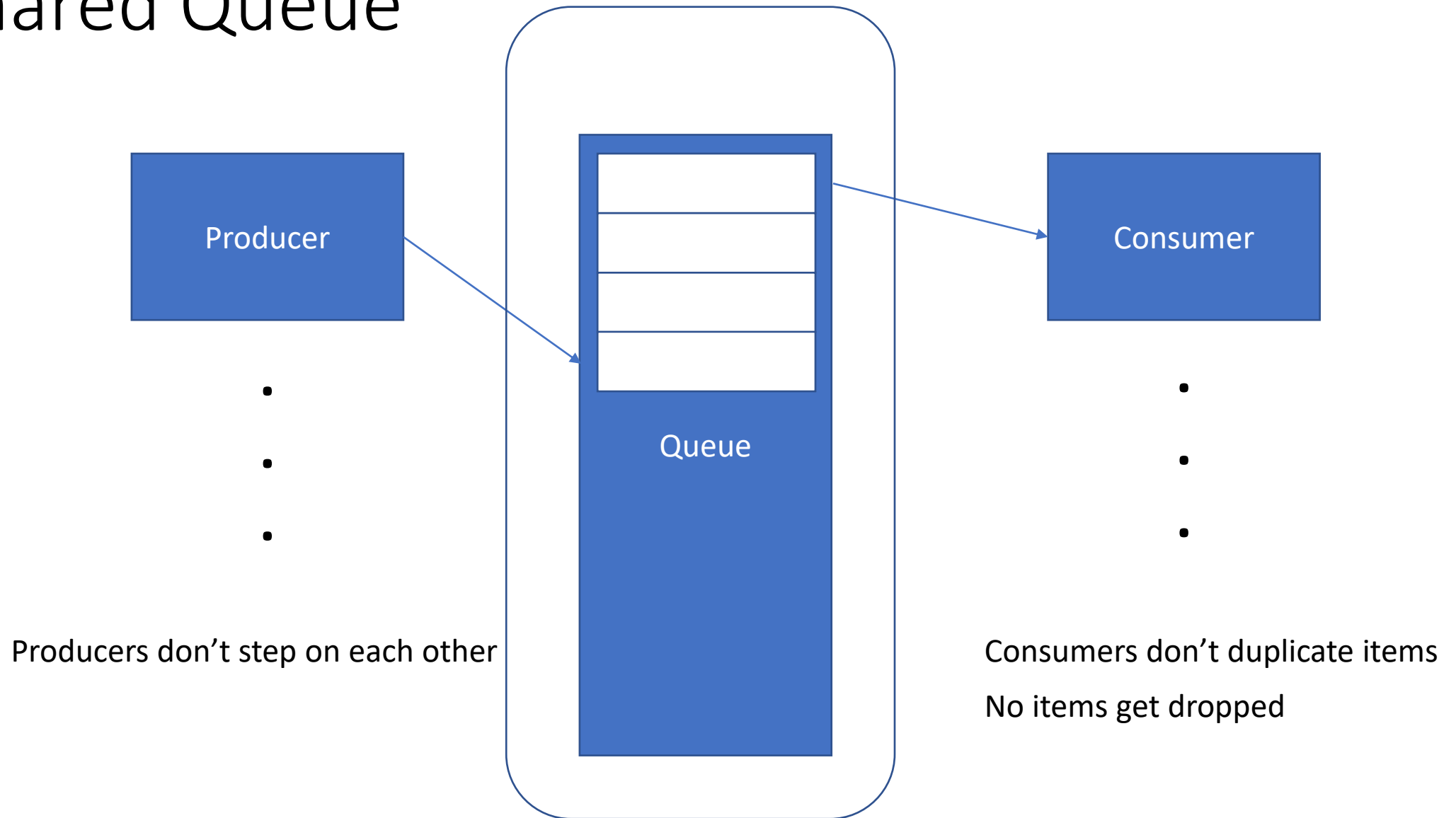


Shared Queue



REST Service – REST + Queue = `rest_queue`

- REST API basics
 - Endpoint URLs
 - Methods
- `rest_queue` API

REST API basics - URLs

- Collection

http://host:port/<type>s

- Single item

http://host:port/<type>s/<instance_id>

- Execute a method on an item

http://host:port/<type>s/<instance_id>/<method>

- Collection of sub-items

http://host:port/<type>s/<instance_id>/<subtype>s

- Single sub-item

http://host:port/<type>s/<instance_id>/<subtype>s/<subinstance_id>

REST API basics - Methods

| | | |
|---------|-------------|--|
| Create | - POST | <code>http://host:port/<type>s</code> |
| Read | - GET | <code>http://host:port/<type>s/<instance_id></code> |
| Update | - PUT/PATCH | <code>http://host:port/<type>s/<instance_id></code> |
| Delete | - DELETE | <code>http://host:port/<type>s/<instance_id></code> |
| Execute | - POST | <code>http://host:port/<type>s/<instance_id>/<method></code> |
| Relate | - POST | <code>http://host:port/<type>s/<instance_id>?<relation>=<instance_id></code> |
| List | - GET | <code>http://host:port/<type>s</code> |

rest_queue REST API

| | | |
|--------|----------|--|
| Create | - POST | <code>http://host:port/queues/<queue_name></code> |
| Read | - GET | <code>http://host:port/queues/<queue_name></code> |
| Push | - POST | <code>http://host:port/queues/<queue_name>/push</code> |
| Pop | - POST | <code>http://host:port/queues/<queue_name>/pop</code> |
| Delete | - DELETE | <code>http://host:port/queues/<queue_name></code> |
| List | - GET | <code>http://host:port/queues</code> |

FastAPI endpoints

- From the FastAPI tutorial:

```
from fastapi import FastAPI

app = FastAPI()

@app.get("/")
async def root():
    return {"message": "Hello world"}
```

from [First Steps - FastAPI \(tiangolo.com\)](https://fastapi.tiangolo.com/)

- So we implement each rest_queue endpoint following this pattern