

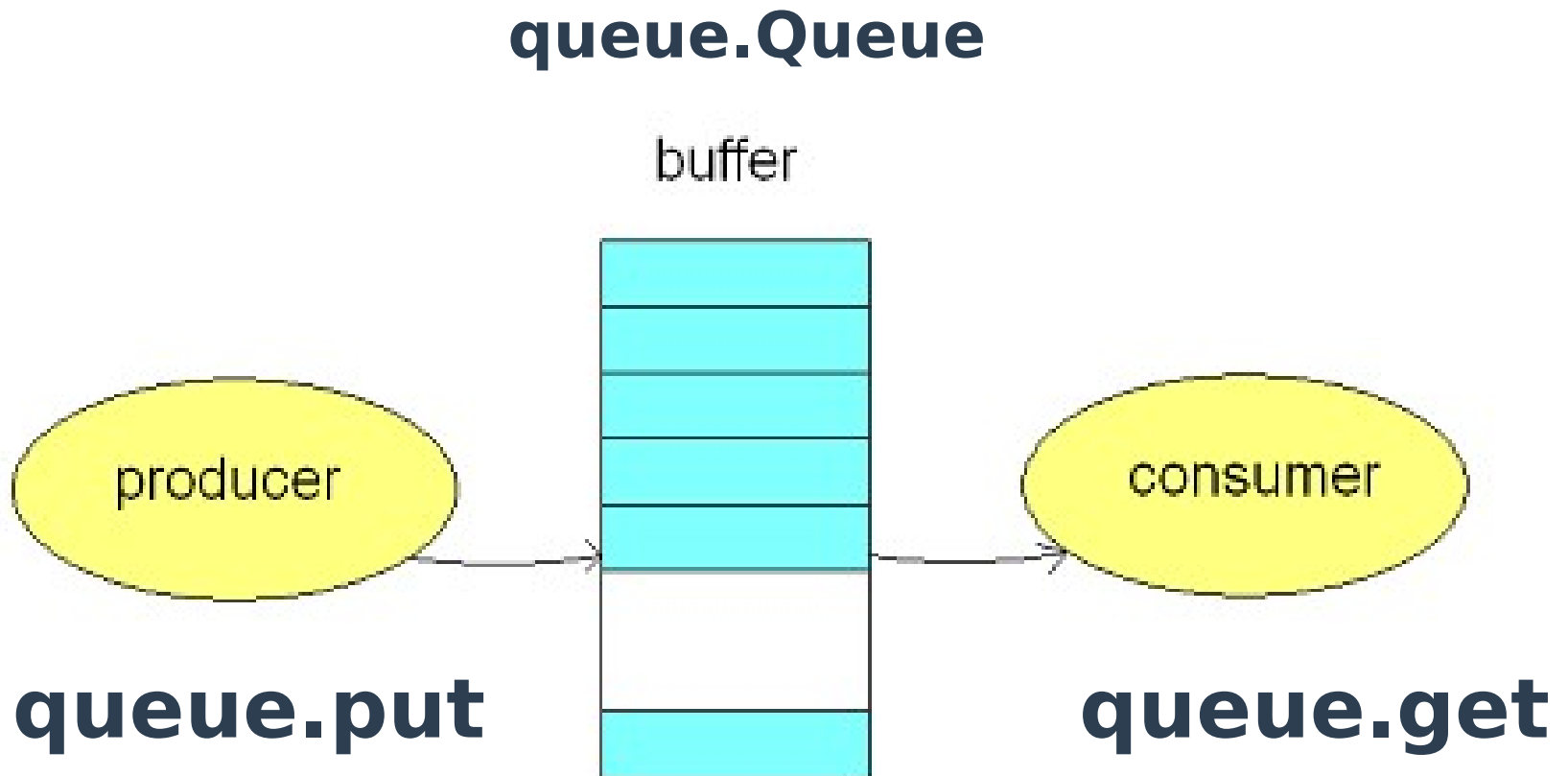
# Recap

- [\*\*https://realpython.com/intro-to-python-threading/#working-with-many-threads\*\*](https://realpython.com/intro-to-python-threading/#working-with-many-threads)

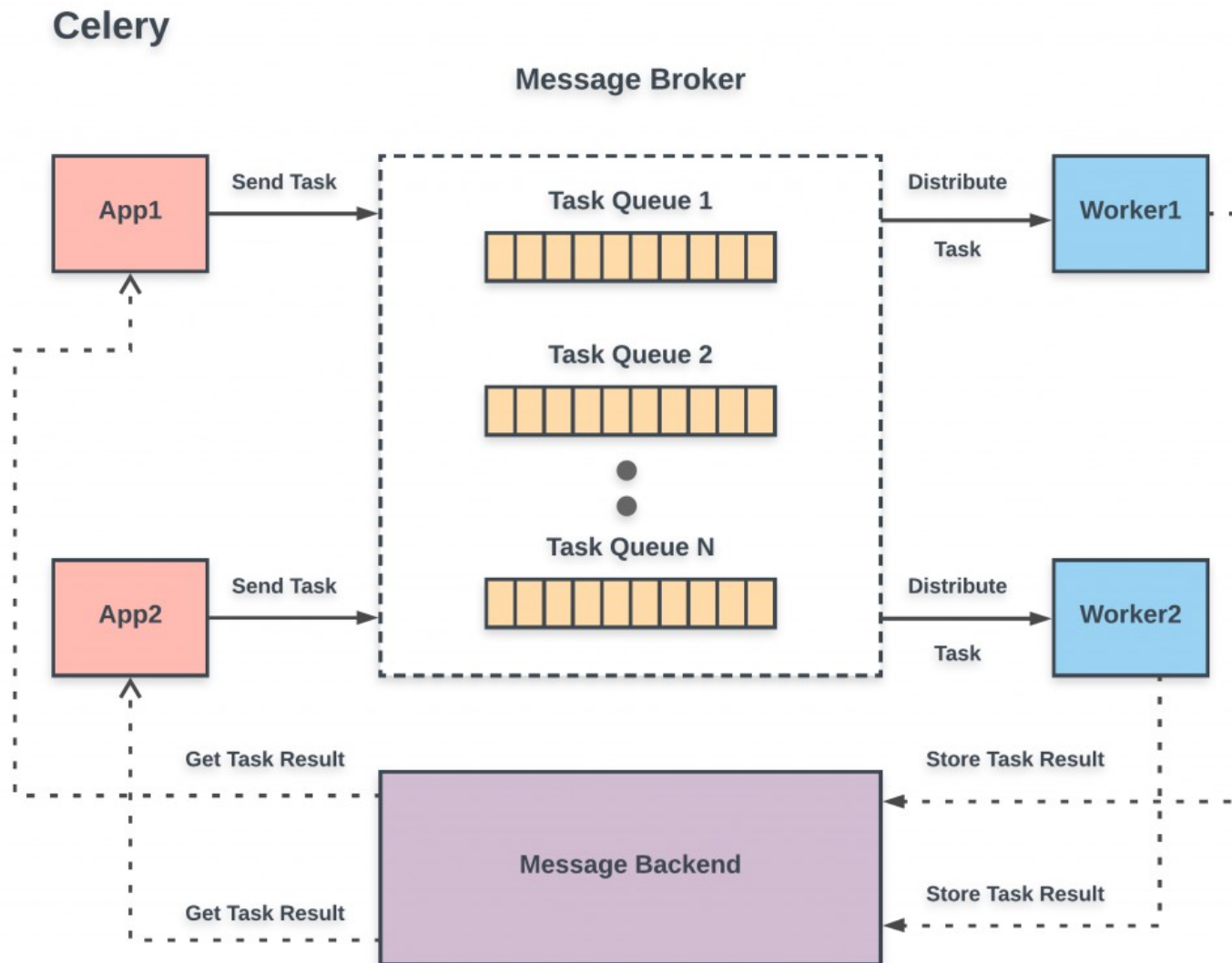
# Today

- **Hands on**
- **Using threadpoolexecutor**
- **Task queues**

# Producer / consumer



# Task queue



# Doing multiple things at once

	Threads	Processes	Asynchronous	Distribution
What	One process, one memory “space”, multiple executors	Multiple programs running	Using event loop to react to system events	Multiple computers cooperate
Examples	threading module	Multiprocessing, subprocess, xargs	“async def”, javascript	Celery, Airflow, Hadoop, Spark, SQS
Advantages		No race conditions		
Disadvantages		No easy communication	Needs different modules, not always intuitive	