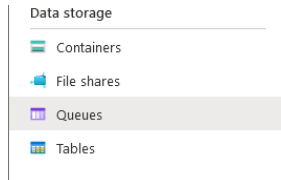
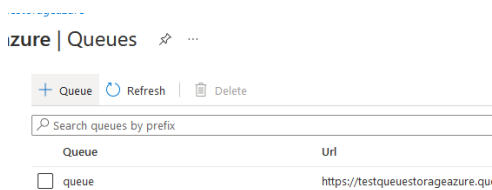


## Cozi de mesaje

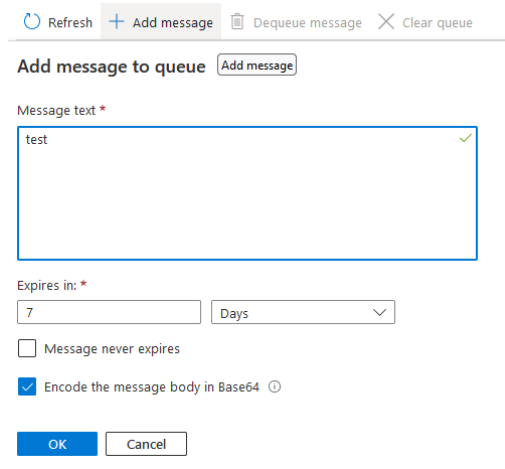
- Intrati pe platforma Azure si cautati **Storage accounts**
- Creati un nou **Storage account** sau il puteti folosi pe cel creat in laboratoarele precedente. Dati click pe numele noului cont si selectati din partea stanga **Data Storage -> Queues**



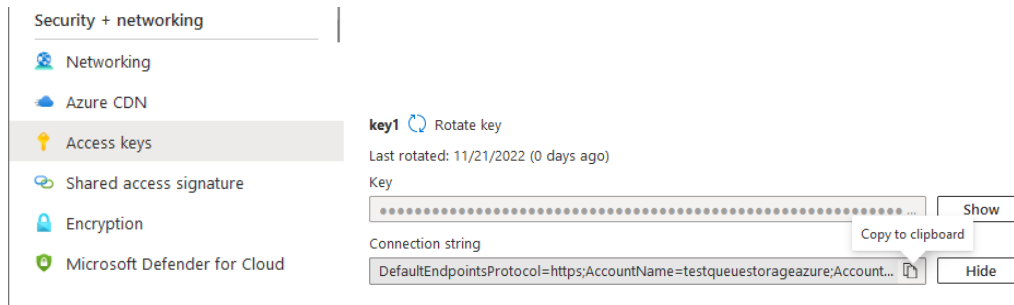
- Apasati + Queue din partea de sus pentru a crea o noua coada si scrieti un nume



- Intrati in noua coada si adaugati un mesaj nou apasand pe butonul + **Add message**



- Selectati un mesaj si apasati **Dequeue message** pentru a sterge primul mesaj din coada.
- Scriem doua programe in Python pentru a putea citi si adauga mesaje in coada.
- Urmărim [tutorialul](#). Instalăm SDK-ul pentru cozi:  
python3 -m venv venv  
source venv/bin/activate  
pip install azure-storage-queue
- Gasim connection string-ul din Storage account → Security + networking → Access keys → key1 → Connection string



- Cod Python: <https://pastebin.com/UyiDXhRJ>

- Pentru a adauga mesaje in coada:

```
from azure.storage.queue import (
    QueueClient,
    BinaryBase64EncodePolicy,
    BinaryBase64DecodePolicy
)
```

```
import os, uuid
```

```
connect_str =
"DefaultEndpointsProtocol=https;AccountName=testqueuestorageazure;AccountKey=4wnffIIvI03Cz9+J4acqo6eUu193MijdkODLa1Smc9OyRjZXJ6O3XgAJgksNid9XL6R3kJl2/C3+ASstkM9EQ==;EndpointSuffix=core.windows.net"
```

```
queue_name = "queue"
queue_client = QueueClient.from_connection_string(connect_str,
queue_name)
```

```
messages = [
    "test-1",
    "test-2",
    "test-3",
]
```

```
for message in messages:
    print("Adding message: " + message)
    queue_client.send_message(message)
```

- Pentru a procesa mesajele din coada:

```
from azure.storage.queue import (
    QueueClient,
    BinaryBase64EncodePolicy,
    BinaryBase64DecodePolicy
)
```

```
import os, uuid
from base64 import b64decode
```

```
connect_str =
"DefaultEndpointsProtocol=https;AccountName=testqueuestorageazure;Acc
```

```
ountKey=4wnffIIvI03Cz9+J4acqo6eUu193MijdkODLa1Smc9OyRjZXJ6O
3XgAJgksNid9XL6R3kJlI2/C3+ASstkM9EQ==;EndpointSuffix=core.wind
ows.net"
```

```
queue_name = "queue"
queue_client = QueueClient.from_connection_string(connect_str,
queue_name)
```

```
messages = queue_client.receive_messages()
for message in messages:
    message_content = message.content
```

```
# Daca ati adaugat mesaje din browser, implicit este selectata
# optiunea "Encode the message body in Base64". Pentru decodare
# folositi linia de mai jos
# message_content = b64decode(message.content).decode("utf-8")
```

```
print("Dequeuing message: " + message_content)
queue_client.delete_message(message.id, message.pop_receipt)
```

- Daca vreti sa trimiteti structuri folosind aceasta coada, trebuie sa le faceti [marshalling](https://pastebin.com/K4VpYPJy). Cea mai simpla metoda este sa folositi JSON sau Base64. Cod:

<https://pastebin.com/K4VpYPJy>

```
from azure.storage.queue import (
    QueueClient,
    BinaryBase64EncodePolicy,
    BinaryBase64DecodePolicy
)
```

```
import os, uuid
import json
import pickle
```

```
connect_str =
"DefaultEndpointsProtocol=https;AccountName=testqueuestorageazure;Acc
ountKey=4wnffIIvI03Cz9+J4acqo6eUu193MijdkODLa1Smc9OyRjZXJ6O
3XgAJgksNid9XL6R3kJlI2/C3+ASstkM9EQ==;EndpointSuffix=core.wind
ows.net"
```

```
queue_name = "binary-queue"
queue_client = QueueClient.from_connection_string(
    connect_str,
    queue_name,
    message_encode_policy = BinaryBase64EncodePolicy(),
    message_decode_policy = BinaryBase64DecodePolicy()
)
```

```
try:
    queue_client.create_queue()
except:
```

```

pass

message = {
    "1": {
        "title": "Harry Potter 1",
        "author": "JK Rowling",
        "pages": 143,
    },
    "2": {
        "title": "1984",
        "author": "George Orwell",
        "pages": 326,
    },
}

print("Adding message: " + str(message))
print()

# Daca structura este simpla, putem folosi JSON
# encoded_message = json.dumps(message)

# Daca trebuie sa trimitem lucruri mai complicate
# putem folosi pickle
encoded_message = pickle.dumps(message)

# Trimitem mesajul
queue_client.send_message(encoded_message)

# Receptionam mesajul
messages = queue_client.receive_messages()
for message in messages:
    print("Dequeuing message: " + str(message.content))

    decoded_message = pickle.loads(message.content)
    print("Decoded message: " + str(decoded_message))

    queue_client.delete_message(message.id, message.pop_receipt)

```