

# COT-3: docker compose + MinIO

<https://github.com/wianluna/cot>

## 1. MinIO контейнер:

```
services:
  minio:
    image: minio/minio
    container_name: minio
    environment:
      - MINIO_ACCESS_KEY=access-key
      - MINIO_SECRET_KEY=secret-key
    ports:
      - "9000:9000"
      - "9001:9001"
    tmpfs:
      - /data:rw,size=12M
    command: server /data --console-address :9001
    restart: always
```

**tmpfs: /data:rw,size=12M** монтирует временное хранилище в память для **/data** и ограничивает его размер до 12 MB.

## 2. MinIO Client (mc) контейнер:

```
mc:
  image: minio/mc
  container_name: mc
  depends_on:
    - minio
  entrypoint: >
    sh -c "mc alias set myminio http://minio:9000 access-key secret-key &&
    mc quota set myminio/cot --size 10M"
  restart: always
```

В **entrypoint** устанавливается квота для бакета **cot** с лимитом в 10 MB (**mc quota set**).

## 3. Dataloader (data\_loader) контейнер:


```
data_loader:
  build: ./dataloader
  depends_on:
    - minio
  restart: always
```

Контейнер для загрузки данных

Команда запуска: `sudo docker-compose up -d`

Проверим квоту для бакета `cot`:

```
(.venv) ann@MacBook-Pro-6:/Users/ann/Desktop/cot$ mc alias set myminio http://localhost:9000 access-key secret-key
Added `myminio` successfully.
(.venv) ann@MacBook-Pro-6:/Users/ann/Desktop/cot$ mc quota info myminio/cot
Bucket `cot` has hard quota of 9.5 MiB
```


**cot**  
 Access: Private

[Delete Bucket](#)
[Refresh](#)

Summary	Summary
Events	<div> <b>Access Policy:</b> <a href="#">Private</a> </div> <div> <b>Encryption:</b> <a href="#">Disabled</a> </div> <div> <b>Object Locking:</b> <a href="#">Disabled</a> </div> <div> <b>Quota:</b> <a href="#">Enabled</a> </div> <div> <b>Reported Usage:</b> 11.5 MiB         </div> <div> <b>Hard Quota:</b> 9.5 MiB         </div>
Replication	<div> <b>Replication:</b> <a href="#">Disabled</a> </div>
Access	<div> <b>Tags:</b> <a href="#">+ Add tag</a> </div>
Anonymous	<div> <b>Versioning:</b> <a href="#">Unversioned (Default)</a> </div>

Видно, что квота 9.5 MB, но загрузилось 11.5 MB данных (MinIO object scanner не сразу обнаружил превышение квоты)

Логи MinIO контейнера:

```
minio | API: PutObject(bucket=cot, object=cat_meme_128.jpg)
minio | Time: 19:47:39 UTC 12/21/2024
minio | DeploymentID: 884e4fe4-532d-434f-9f1f-14c7ecc67820
minio | RequestID: 181348EBD3F780D1
minio | RemoteHost: 172.18.0.3
minio | Host: minio:9000
minio | UserAgent: Boto3/1.35.86 md/Botocore#1.35.86 ua/2.0 os/linux#6.10.4-linuxkit md/arch#aarch64
minio | lang/python#3.8.20 md/pyimpl#CPython cfg/retry-mode#legacy Botocore/1.35.86
minio | Error: drive:/data, srcVolume: .minio.sys/tmp, srcPath: f5c1d5c7-e1c7-452c-8033-44c0ab112135,
minio | dstVolume: cot:, dstPath: cat_meme_128.jpg - error drive path full (*errors.errorString)
minio | 7: internal/logger/logonce.go:118:logger.(*logOnceType).logOnceIf()
minio | 6: internal/logger/logonce.go:149:logger.LogOnceIf()
minio | 5: cmd/logging.go:164:cmd.storageLogOnceIf()
minio | 4: cmd/xl-storage.go:2577:cmd.(*xlStorage).RenameData.func1()
minio | 3: cmd/xl-storage.go:2847:cmd.(*xlStorage).RenameData()
minio | 2: cmd/xl-storage-disk-id-check.go:501:cmd.(*xlStorageDiskIDCheck).RenameData.func2()
minio | 1: internal/ioutil/ioutil.go:116:ioutil.WithDeadline[...].func1()
minio |
```

```
(.venv) ann@MacBook-Pro-6:/Users/ann/Desktop/cot$ mc admin trace myminio
2024-12-21T23:39:18.614 [400 Bad Request] s3.PutObject minio:9000/cot/cat_meme_183.jpg 172.18.0.3 416µs ↓ 399.709µs ↑
150 B ↓ 354 B
2024-12-21T23:39:19.139 [400 Bad Request] s3.PutObject minio:9000/cot/cat_meme_184.jpg 172.18.0.3 361µs ↓ 341.208µs ↑
150 B ↓ 354 B
2024-12-21T23:39:19.620 [400 Bad Request] s3.PutObject minio:9000/cot/cat_meme_185.jpg 172.18.0.3 210µs ↓ 198.958µs ↑
150 B ↓ 354 B
2024-12-21T23:39:20.120 [400 Bad Request] s3.PutObject minio:9000/cot/cat_meme_186.jpg 172.18.0.3 521µs ↓ 488.667µs ↑
150 B ↓ 354 B
2024-12-21T23:39:20.602 [400 Bad Request] s3.PutObject minio:9000/cot/cat_meme_187.jpg 172.18.0.3 363µs ↓ 326.75µs ↑
150 B ↓ 354 B
2024-12-21T23:39:21.026 [400 Bad Request] s3.PutObject minio:9000/cot/cat_meme_188.jpg 172.18.0.3 426µs ↓ 401.417µs ↑
150 B ↓ 354 B
2024-12-21T23:39:21.487 [400 Bad Request] s3.PutObject minio:9000/cot/cat_meme_189.jpg 172.18.0.3 596µs ↓ 575.791µs ↑
150 B ↓ 354 B
```

Попробуем загрузить ещё одно изображение через клиент после превышения квоты:

```
(.venv) ann@MacBook-Pro-6:/Users/ann/Desktop/cot$ mc cp demo.png myminio/cot
mc: <ERROR> Failed to copy `/Users/ann/Desktop/cot/demo.png`. Bucket quota exceeded
(.venv) ann@MacBook-Pro-6:/Users/ann/Desktop/cot$
```

И наконец посмотрим на котов:

Created on: Sat, Dec 21 2024 22:46:07 (GMT+3)    Access: PRIVATE    11.5 MiB / 9.5 MiB - 118 Objects

Rewind

Refresh

Upload

<   cot

Create new path

<input type="checkbox"/>	Name	Last Modified	Size
<input type="checkbox"/>	cat_meme_0.jpg	Today, 22:46	193.2 KiB
<input type="checkbox"/>	cat_meme_1.jpg	Today, 22:46	40.7 KiB
<input type="checkbox"/>	cat_meme_10.jpg	Today, 22:46	238.8 KiB
<input type="checkbox"/>	cat_meme_100.jpg	Today, 22:47	114.0 KiB
<input type="checkbox"/>	cat_meme_101.jpg	Today, 22:47	76.0 KiB
<input type="checkbox"/>	cat_meme_102.jpg	Today, 22:47	27.8 KiB
<input type="checkbox"/>	cat_meme_103.jpg	Today, 22:47	70.0 KiB
<input type="checkbox"/>	cat_meme_104.jpg	Today, 22:47	205.1 KiB
<input type="checkbox"/>	cat_meme_105.jpg	Today, 22:47	186.7 KiB
<input type="checkbox"/>	cat_meme_106.jpg	Today, 22:47	90.9 KiB
<input type="checkbox"/>	cat_meme_107.jpg	Today, 22:47	148.7 KiB
<input type="checkbox"/>	cat_meme_108.jpg	Today, 22:47	67.3 KiB
<input type="checkbox"/>	cat_meme_109.jpg	Today, 22:47	69.0 KiB

