CREDENTIALS PROJECT

GENERATOR CONTAINER

```
Laurob_admin@SYN0L0GY:/volume1/docker/cybersup/project-python$ cat generator/dockerfile
FROM python:3.9-slim
WORKDIR /app
COPY generator.py .
CMD ["python", "generator.py"]
```

```
Laurob_admin@SYN0L0GY:/volume1/docker/cybersup/project-python$ cat generator/generator.py
import time, os, sys
import binascii

# Total run time: 3 minutes
# We'll do 6 cycles of 30 seconds
iterations = 6

credentials_file = "/data/credentials.txt"

for i in range(iterations):
    # Generate random username (16 bytes hex) and password (16 bytes = 128 bits)
    username = binascii.hexlify(os.urandom(8)).decode()  # 16 hex chars
    password = binascii.hexlify(os.urandom(16)).decode() # 32 hex chars (128 bits)
    credentials = f"{username}:{password}"

    # Write to file
    with open(credentials_file, "w") as f:
        f.write(credentials + "\n")

    # Log to stdout
    print(f"[Generator] Cycle {i+1}: Generated new credentials: {credentials}")
    sys.stdout.flush()

    time.sleep(30)

print("[Generator] Completed 3 minutes of credential generation. Exiting.")
```

MANAGER CONTAINER

```
Laurob_admin@SYN0L0GY:/volume1/docker/cybersup/project-python$ cat manager/dockerfile
FROM python:3.9-slim
WORKDIR /app
COPY manager.py .
CMD ["python", "manager.py"]
```

```
Laurob_admin@SYN0L0GY:/volume1/docker/cybersup/project-python$ cat manager/manager.py
import time, os, sys
import binascii

# We'll also run for 3 minutes total, checking every 30 seconds.
iterations = 6

input_file = "/data/credentials.txt"
output_file = "/data/updated_credentials.txt"

# Give a small delay at the start to ensure the generator has created initial creds
time.sleep(5)

for i in range(iterations):
    # Read current credentials
    if os.path.exists(input_file):
        with open(input_file, "r") as f:
            line = f.readline().strip()
            if line:
                # Credentials format: username:password
                parts = line.split(":")
                if len(parts) == 2:
                    username, old_password = parts
                    # Generate a new password (128-bit)
                    new_password = binascii.hexlify(os.urandom(16)).decode()
                    updated_credentials = f"{username}:{new_password}"

                    # Write updated credentials to output file
                    with open(output_file, "w") as outf:
                        outf.write(updated_credentials + "\n")

                    # Log the update
                    print(f"[Manager] Cycle {i+1}: Read {username}:{old_password} -> Updated to {username}:{new_password}")
                    sys.stdout.flush()
                else:
                    print("[Manager] Invalid credentials format encountered.")
            else:
                print("[Manager] No credentials found yet.")
    else:
        print("[Manager] Credentials file not found yet.")

    time.sleep(30)

print("[Manager] Completed 3 minutes of managing credentials. Exiting.")
```

DOCKER COMPOSE

```
Laurob_admin@SYN0L0GY:/volume1/docker/cybersup/project-python$ cat docker-compose.ym
version: "3.8"
services:
  generator:
    build: ./generator
    volumes:
      - creds_data:/data
    depends_on:
      - manager

  manager:
    build: ./manager
    volumes:
      - creds_data:/data

volumes:
  creds_data:
```

BUILD

```
Laurob_admin@SYN0L0GY:/volume1/docker/cybersup/project-python$ sudo docker-compose build
Password:
[+] Building 6.5s (7/8)
 => [internal] load build definition from dockerfile                                                                 0.1s
 => => transferring dockerfile: 118B                                                                                 0.0s
 => [internal] load .dockerignore                                                                                    0.2s
 => => transferring context: 2B                                                                                      0.0s
 => [internal] load metadata for docker.io/library/python:3.9-slim                                                   1.7s
 => [1/3] FROM docker.io/library/python:3.9-slim@sha256:4ee0613170ac55ebc693a03b6655a5c6f387126f6bc3390e739c2e6c337880ef   4.6s
 => => resolve docker.io/library/python:3.9-slim@sha256:4ee0613170ac55ebc693a03b6655a5c6f387126f6bc3390e739c2e6c337880ef   0.1s
 => => sha256:4ee0613170ac55ebc693a03b6655a5c6f387126f6bc3390e739c2e6c337880ef 10.41kB / 10.41kB                     0.0s
 => => sha256:2f9d412a81d0e26acee1ddd6db40e1465d8d3b0070113d18ba73086eb54778c3 1.75kB / 1.75kB                       0.0s
 => => sha256:473b3636d11e17647bf9e36816053317dd5a6667e8c2d0b8e1110c1a89249133 5.28kB / 5.28kB                       0.0s
 => => sha256:c3edffebd7235334426d893f9c7b8aa09ea786e71b6bcdef6860a593a7f8f21b 3.32MB / 3.32MB                       0.3s
 => => sha256:c07f3a6e2bd8775018ae44783bcef58a2ca4c4557fdfeb339c00ba9cf5388dc4 14.93MB / 14.93MB                     0.6s
 => => sha256:e898f07f768a6be80b5271f2ab022b43a7110379fb29a6c01e9d272754adb300 250B / 250B                           0.4s
 => => extracting sha256:c3edffebd7235334426d893f9c7b8aa09ea786e71b6bcdef6860a593a7f8f21b                            0.2s
 => => extracting sha256:c07f3a6e2bd8775018ae44783bcef58a2ca4c4557fdfeb339c00ba9cf5388dc4                            0.6s
 => => extracting sha256:e898f07f768a6be80b5271f2ab022b43a7110379fb29a6c01e9d272754adb300                            0.2s
 => [internal] load build context                                                                                    0.1s
 => => transferring context: 1.70kB                                                                                  0.0s
 => [2/3] WORKDIR /app                                                                                               0.3s
 => [3/3] COPY manager.py .                                                                                          0.4s
 => exporting to image                                                                                               1.1s
 => => exporting layers                                                                                              1.0s
 => => writing image sha256:17fa0c2e1356cdd53aadd3a69fe1453e2eb7e5bc5718225762a46dc6b1976e21                         0.0s
 => => naming to docker.io/library/project-python-manager                                                            0.0s
[+] Building 1.8s (8/8) FINISHED
 => [internal] load build definition from dockerfile                                                                 0.2s
 => => transferring dockerfile: 123B                                                                                 0.0s
 => [internal] load .dockerignore                                                                                    0.2s
 => => transferring context: 2B                                                                                      0.0s
 => [internal] load metadata for docker.io/library/python:3.9-slim                                                   0.3s
 => [1/3] FROM docker.io/library/python:3.9-slim@sha256:4ee0613170ac55ebc693a03b6655a5c6f387126f6bc3390e739c2e6c337880ef   0.0s
 => [internal] load build context                                                                                    0.1s
 => => transferring context: 842B                                                                                    0.0s
 => CACHED [2/3] WORKDIR /app                                                                                        0.0s
 => [3/3] COPY generator.py .                                                                                        0.1s
 => exporting to image                                                                                               1.1s
 => => exporting layers                                                                                              1.0s
 => => writing image sha256:8e05e52f1b5a2c1ad66b5c67505fc2bcbad679f064b72bb740889bdfe46e64c6                         0.0s
 => => naming to docker.io/library/project-python-generator                                                          0.0s
```

UP

```
Laurob_admin@SYN0L0GY:/volume1/docker/cybersup/project-python$ sudo docker-compose up
[+] Running 3/3
 ⠿ Volume "project-python_creds_data"    Created                                                                    0.0s
 ⠿ Container project-python-manager-1    Created                                                                    0.1s
 ⠿ Container project-python-generator-1  Created                                                                    0.1s
Attaching to project-python-generator-1, project-python-manager-1
project-python-generator-1  | [Generator] Cycle 1: Generated new credentials: b1692e50117a9969:bee1a072c611a7c3247124ef70edd8b1
project-python-manager-1    | [Manager] Cycle 1: Read b1692e50117a9969:bee1a072c611a7c3247124ef70edd8b1 -> Updated to b1692e5011
7a9969:c8d9ae56d5950e479418c98c00ebfc5e
project-python-generator-1  | [Generator] Cycle 2: Generated new credentials: 1db6f807417ac89c:007ca04a4dd4cd78a4f59ae146d1b663
project-python-manager-1    | [Manager] Cycle 2: Read 1db6f807417ac89c:007ca04a4dd4cd78a4f59ae146d1b663 -> Updated to 1db6f80741
7ac89c:e0d20fb6f81518870b848a0616e45222
project-python-generator-1  | [Generator] Cycle 3: Generated new credentials: 94f7e29e57ed1da1:8437da6cf40c04a7c190ac5753c6ea0e
project-python-manager-1    | [Manager] Cycle 3: Read 94f7e29e57ed1da1:8437da6cf40c04a7c190ac5753c6ea0e -> Updated to 94f7e29e57
ed1da1:dae623d3afca268e75c34b4d8aa9051d
project-python-generator-1  | [Generator] Cycle 4: Generated new credentials: cc53c5b4978b9726:039e22676cf6bb0098a0a9aa7105e1d3
project-python-manager-1    | [Manager] Cycle 4: Read cc53c5b4978b9726:039e22676cf6bb0098a0a9aa7105e1d3 -> Updated to cc53c5b497
8b9726:360293594ec6a65129486e20f1d522a0
project-python-generator-1  | [Generator] Cycle 5: Generated new credentials: 902a419e60ebbb44:bb78f40dc35b19c987bf50bb389e412c
project-python-manager-1    | [Manager] Cycle 5: Read 902a419e60ebbb44:bb78f40dc35b19c987bf50bb389e412c -> Updated to 902a419e60
ebbb44:b8ccd6641c5a1ffbeac38b8e0500e4b6
project-python-generator-1  | [Generator] Cycle 6: Generated new credentials: 63421d4559bd1fd5:0007782ecfe7a5c244d953ef0950ffa7
project-python-manager-1    | [Manager] Cycle 6: Read 63421d4559bd1fd5:0007782ecfe7a5c244d953ef0950ffa7 -> Updated to 63421d4559
bd1fd5:3f51c2dd69b8dd3caa814265a117e557
project-python-generator-1  | [Generator] Completed 3 minutes of credential generation. Exiting.
project-python-generator-1 exited with code 0
project-python-manager-1    | [Manager] Completed 3 minutes of managing credentials. Exiting.
project-python-manager-1 exited with code 0
```