

## Script 1 : generate\_users.py

```
GNU nano 7.2                                     generate_users.py
import secrets
import string
import time
import json
import os

def generate_username():
    """Génère un nom d'utilisateur aléatoire."""
    prefix = "user_"
    random_part = ''.join(secrets.choice(string.ascii_lowercase + string.digits) for _ in range(8))
    return prefix + random_part

def generate_password():
    """Génère un mot de passe sécurisé de 128 bits."""
    alphabet = string.ascii_letters + string.digits + string.punctuation
    password = ''.join(secrets.choice(alphabet) for _ in range(32))
    return password

def main():
    """Génère un utilisateur toutes les 30 secondes pendant 3 minutes."""
    start_time = time.time()
    file_path = "/shared_volume/users5.json"

    # Créer le fichier s'il n'existe pas
    if not os.path.exists(file_path):
        with open(file_path, "w") as file:

            with open(file_path, "w") as file:
                file.write("")

    while time.time() - start_time < 180: # 180 secondes = 3 minutes
        try:
            username = generate_username()
            password = generate_password()
            user_data = {"username": username, "password": password}

            # Écrire l'utilisateur dans le fichier JSON
            with open(file_path, "a") as file:
                file.write(json.dumps(user_data) + "\n")

            # Affichage formaté
            print(f"| Généré: {{'username': '{username}', 'password': '{password}'}}")
        except Exception as e:
            print(f"Erreur lors de l'écriture dans le fichier : {e}")

        time.sleep(30) # Attendre 30 secondes entre chaque génération

if __name__ == "__main__":
    main()
```

## Script 2 : update\_passwords.py

```
GNU nano 7.2 update_passwords.py
import secrets
import string
import time
import json
import os

def generate_password():
    """Génère un mot de passe sécurisé de 128 bits."""
    alphabet = string.ascii_letters + string.digits + string.punctuation
    password = ''.join(secrets.choice(alphabet) for _ in range(32))
    return password

def main():
    """Met à jour les mots de passe une seule fois pour chaque utilisateur."""
    start_time = time.time()
    file_path = "/shared_volume/users5.json"
    updated_users = set() # Garde la trace des utilisateurs déjà mis à jour

    while time.time() - start_time < 180: # 180 secondes = 3 minutes
        if not os.path.exists(file_path):
            print("Fichier users5.json non trouvé, en attente...")
            time.sleep(30)
            continue

        try:
            # Lire les utilisateurs existants
            with open(file_path, "r") as file:
                users = [json.loads(line) for line in file if line.strip()]

            try:
```

```
            # Lire les utilisateurs existants
            with open(file_path, "r") as file:
                users = [json.loads(line) for line in file if line.strip()]

            # Mettre à jour les mots de passe uniquement pour les nouveaux utilisateurs
            users_to_update = []
            for user in users:
                if user["username"] not in updated_users:
                    old_password = user["password"]
                    new_password = generate_password()
                    user["password"] = new_password
                    updated_users.add(user["username"])
                    print(f"| Utilisateur : {user['username']}, Ancien MDP : {old_password}, Nouveau MDP : {new_password}")
                    users_to_update.append(user)

            # Réécrire le fichier avec les mots de passe mis à jour
            with open(file_path, "w") as file:
                for user in users_to_update:
                    file.write(json.dumps(user) + "\n")

        except Exception as e:
            print(f"Erreur lors de la mise à jour des mots de passe : {e}")

            time.sleep(30) # Attendre 30 secondes entre chaque vérification

if __name__ == "__main__":
    main()
```

## DockerFile :

```
GNU nano 7.2
version: '3.8'

services:
  generator:
    build:
      context: .
      dockerfile: Dockerfile_A
  updater:
    build:
      context: .
      dockerfile: Dockerfile_B
volumes:
  - ./local_shared_volume:/shared_volume
container_name: generator
restart: "no"

updater:
  build:
    context: .
    dockerfile: Dockerfile_B
  volumes:
    - ./local_shared_volume:/shared_volume
  container_name: updater
  restart: "no"

volumes:
  shared_volume:
```

```
[+] Running 3/3
✓Container generator          Removed          0.0s
✓Container updater           Removed          0.0s
✓Network projetpythonusermdp_default Removed          0.2s
user@SOUFIANE:~/ProjetPythonUserMdp$ docker-compose up --build
WARN[0000] /home/user/ProjetPythonUserMdp/docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove
it to avoid potential confusion
[+] Building 1.3s (15/15) FINISHED
=> [generator internal] load build definition from Dockerfile_A          docker:default
=> => transferring dockerfile: 160B                                     0.0s
=> [updater internal] load build definition from Dockerfile_B          0.0s
=> => transferring dockerfile: 164B                                     0.0s
=> [generator internal] load metadata for docker.io/library/python:3.9-slim 1.0s
=> [generator internal] load .dockerignore                             0.0s
=> => transferring context: 2B                                           0.0s
=> [updater internal] load .dockerignore                             0.0s
=> => transferring context: 2B                                           0.0s
=> [updater 1/3] FROM docker.io/library/python:3.9-slim@sha256:4ee0613170ac55ebc693a03b6655a5c6f387126f6bc3390e7 0.0s
=> => resolve docker.io/library/python:3.9-slim@sha256:4ee0613170ac55ebc693a03b6655a5c6f387126f6bc3390e739c2e6c3 0.0s
=> [generator internal] load build context                             0.0s
=> => transferring context: 39B                                          0.0s
=> [updater internal] load build context                             0.0s
=> => transferring context: 41B                                          0.0s
```

## Résultat :

```
✓Network projetpythonusermdp_default Created 0.0s
✓Container generator Created 0.1s
✓Container updater Created 0.1s
Attaching to generator, updater
generator | | Généré: {'username': 'user_izphbuqg', 'password': 'fN*qu"0c;Erd>MFv(Gyxu^r<di&aGb]}'}
generator | | Généré: {'username': 'user_04quqv3s', 'password': 'KXRIB<T#;%E#6?_n4Kd`%L5re/Vb7(YL'}
updater | | Fichier users5.json non trouvé, en attente...
generator | | Généré: {'username': 'user_5os36fux', 'password': 'N+0.xbl?akX]n_F.|;nx3U\p;#z`SE2'}
updater | | Utilisateur : user_izphbuqg, Ancien MDP : fN*qu"0c;Erd>MFv(Gyxu^r<di&aGb]}, Nouveau MDP : wLh,bXzR?ZDf-ox_YUsCY!37,C3T
5~nE
generator | | Généré: {'username': 'user_yxteg36r', 'password': '?m}=jKL={:3x:f-i?rp1VEI?2=023^t"}'
updater | | Utilisateur : user_04quqv3s, Ancien MDP : KXRIB<T#;%E#6?_n4Kd`%L5re/Vb7(YL, Nouveau MDP : 7m0Z@|ap%iXl>QnL1vFl{Np2>2m+
{|k$
generator | | Généré: {'username': 'user_vcf3vuuf', 'password': 'ux&{SaC}$>Db;;K$+30TB/GPwp<1hMo]'}
updater | | Utilisateur : user_5os36fux, Ancien MDP : N+0.xbl?akX]n_F.|;nx3U\p;#z`SE2, Nouveau MDP : Rn#7l>\Z"3J|X/c&WM--wYgH$U2x
EaR3
generator | | Généré: {'username': 'user_1kjbxbkct', 'password': '5P`A#Efcah(D'5kqAXF`NFA3E9W^]mSI'}
updater | | Utilisateur : user_yxteg36r, Ancien MDP : ?m}=jKL={:3x:f-i?rp1VEI?2=023^t", Nouveau MDP : Qh&,hB"$C0%6LUUi*-1wAa|SZ@sV
4A12
generator | | Généré: {'username': 'user_86d21gn8', 'password': '$ArQgk=Y0mh86jN[k\0E:3<-%v|kGkx!'}
updater | | Utilisateur : user_vcf3vuuf, Ancien MDP : ux&{SaC}$>Db;;K$+30TB/GPwp<1hMo], Nouveau MDP : 949uHWokS~@rZQ$zx)\8`E$I=vSH
\,AN
updater | | Utilisateur : user_1kjbxbkct, Ancien MDP : 5P`A#Efcah(D'5kqAXF`NFA3E9W^]mSI, Nouveau MDP : z>pd-Q%VYUe=<54NXSX#yY8I{[gQ
t=DE
updater exited with code 0
```