Practical 4: Implement Brute force Attack and Virus

Brute Force Input :

```
import itertools import
string
 def
bruteforce(password):
    chars = string.printable.strip()     attempts = 0
for length in range(1, len(password) + 1):         for guess
in itertools.product(chars, repeat=length):
            attempts += 1
guess = ''.join(guess)
if guess == password:
                return (attempts, guess)
return (attempts, None)
 password = input("Input the password to crack: ") attempts, guess
= bruteforce(password) if guess:     print(f"Password cracked in
{attempts} attempts. The password is
{guess}.")
else:
    print(f"Password not cracked after {attempts} attempts.")
```

Brute Force Output :

```
PS C:\Users\jay07\OneDrive\Desktop\CCPRAC1> python -u "c:\Users\jay07\OneDrive\Desktop\CCPRAC1\tempCodeRunnerFile.python"
Input the password to crack: 5555
Password cracked in 5037090 attempts. The password is 5555.
PS C:\Users\jay07\OneDrive\Desktop\CCPRAC1>
```

Input (Creating file and deleting it):

```
import os
import time

def create_files(directory):
    if not os.path.exists(directory):
        os.makedirs(directory)
    for i in range(5):
        file_path = os.path.join(directory, f"malicious_file_{i}.txt")
        with open(file_path, 'w') as file:
            file.write(f"This is a simulated malicious file {i}.")
        print(f"Created: {file_path}")

def delete_files(directory):
    if os.path.exists(directory):
        for file_name in os.listdir(directory):
            file_path = os.path.join(directory, file_name)
            if os.path.isfile(file_path):
```

```
            os.remove(file_path)
            print(f"Deleted: {file_path}")
        os.rmdir(directory)
        print(f"Deleted directory: {directory}")

if __name__ == "__main__":
    test_directory = "D:\\Test"  # Use double backslashes for Windows paths
    print("Simulating malicious behavior...")
    create_files(test_directory)

    # Simulate waiting time
    time.sleep(10)  # 10 seconds

    delete_files(test_directory)
    print("Simulation completed and cleaned up.")
```

Virus Output :

```
PS C:\Users\Admin> & C:/Users/Admin/AppData/Local/Programs/Python/Python311/python.exe d:/Aditya04/virus.py
Simulating malicious behavior...
Created: D:\Test\malicious_file_0.txt
Created: D:\Test\malicious_file_1.txt
Created: D:\Test\malicious_file_2.txt
Created: D:\Test\malicious_file_3.txt
Created: D:\Test\malicious_file_4.txt
Deleted: D:\Test\malicious_file_0.txt
Deleted: D:\Test\malicious_file_1.txt
Deleted: D:\Test\malicious_file_2.txt
Deleted: D:\Test\malicious_file_3.txt
Deleted: D:\Test\malicious_file_4.txt
Deleted directory: D:\Test
Simulation completed and cleaned up.
```