

Python Exam

Tasks



1. (25 PTS)

You are provided with three files, first-names.txt, last-names.txt and mails.txt. Write a script that generates random email address using the names and the email suffixes provided. The email address should be of the following format:
<last name>-<first name>@<suffix>.
Generate 10 addresses and print them to the terminal.

2. (25 PTS)

You are provided with a text file (hhgttg.txt). Write a script that counts all the letters in the file and prints how many times each letter appears. Ignore the case of the letters. Make sure to count only letters, without spaces or any other special characters.

3. (25 PTS)

Write a script that asks the user for two IPv4 addresses. Use the two addresses and create a UDP packet using scapy. The first address is the destination and the second is the source address. Make sure that the first (destination) IP address is not a private IP address. If it is a private address, print a custom error message.

4. (25 PTS)

Write a script that sniffs the incoming packets using scapy. Capture only TCP packets, and for each packet, print the source and destination IP addresses and ports.

Example:

1.2.3.4:80 -> 4.3.2.1:54771