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1  '''Gives the count how many times our entered password was hacked if it is found in the list of
   hacked password and
2  will also prompt to enter another password and check the same if this password is found the
   loop continues....
3  until we enter such a good password which is not present in the list of hacked password and
   then carryon message will be displayed.
4  meanwhile even if the entered password is in the list of list of hacked passwords but the user
   wants to stop the program, please enter 'STOP'
5  '''
6  import requests
7  import hashlib
8  import sys
9  def request_api_data(query_char):
10     url = 'https://api.pwnedpasswords.com/range/' + query_char
11     res = requests.get(url)
12     if res.status_code != 200:
13         raise RuntimeError(f'Error fetching:{res.status_code}, check the API and try again')
14     return res
15
16 def get_pass_leaks_count(response_hashes, our_hash_to_check):
17     hashes = (line.split(':') for line in response_hashes.text.splitlines())
18     for h,count in hashes:
19         # print(h,count)
20         if h==our_hash_to_check:
21             return count
22     return 0
23
24 def pwned_api_check(pwd):
25     sha1password=hashlib.sha1(pwd.encode('utf-8')).hexdigest().upper()
26     first5_char, tail_char=sha1password[:5], sha1password[5:]
27     response=request_api_data(first5_char)
28     return get_pass_leaks_count(response,tail_char)
29
30 pwd = input("Please Enter your password: ")
31 while True:
32     count= pwned_api_check(pwd)
33     if count:
34         print(f'Your password: {pwd} was found {count} times...you should probably change your password')
35         pwd = input("Please Enter New password, as your previous password is found in the list of hacked passwords: ")
36         if pwd != 'STOP':
37             count= pwned_api_check(pwd)
38         else:
39             print(f"Hey!!! As you had entered {pwd}, We respect your word and terminated the program")
40             break
41     else:
42         print(f'Your password: {pwd} was not found... Carryon!!!')
43         break

```