

## Python In-class Programming Assignment Password Cracker

All the necessary files for this exercise are in `~/repo201/classwork/cw12`.

Write a Python program that opens a provided file of md5 hashes (one per line). Also open the file: `/usr/share/dict/american-english`. The dictionary file contains one word per line, and there are over 100,000 of them.

1. Start by reading the first line of the hash file.
2. Next, read each line of the dictionary file, compute its md5 hash, and compare that to the line you read in step #1.
3. If the two match, you've cracked a password. Print that word to the screen.
4. Keep repeating steps 2 and 3, until you reach the end of the dictionary file<sup>1</sup>.
5. Reset the dictionary file.
6. Read the next line from the hash file and proceed with step #2 again.
7. Repeat until you've gone through every line in the hash file.

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<sup>1</sup> Doing it this way is simpler, and perfectly acceptable at this point. While it works, it's not the most efficient approach. If I find a match in the dictionary, do I need to keep going all the way to the end?