

HW1: Password Cracking

Due: Monday, March 16 at 11:59 PM

Goals

Implement a password cracker in Python and find out as many passwords as possible with a given 1MillionPassword_hashed.txt file.

Hints

1. Use MD5 hash function. It's already implemented in "hashlib".
2. This should be the output of the program.

```
32227/1000000 password has been cracked, hashed: b13bb6ea48b85adc526d33cbef012314, cracked: crotch
32228/1000000 password has been cracked, hashed: 97780db6cdf9954cbfa741c1d9d5df9d, cracked: cronos
32229/1000000 password has been cracked, hashed: 8d9448a0dc482ebbd3daa3f51db6fe17, cracked: crml14
32230/1000000 password has been cracked, hashed: 10333fa3a48497223379c3fd5041d555, cracked: critters
32231/1000000 password has been cracked, hashed: 1ce311e29335e6dde061df16531306f2, cracked: crapper
32232/1000000 password has been cracked, hashed: f77384d2d71a9a628b3dd56f00f96dde, cracked: Cowboys1
32233/1000000 password has been cracked, hashed: dbcbe88e14cd841a0e4c219a6f15ed50, cracked: Cowboys
32234/1000000 password has been cracked, hashed: ff259664ff966487786a1bb458711a4f, cracked: coupe
32235/1000000 password has been cracked, hashed: d1c272c2264308f23e2d4c4332dfcc85, cracked: count0
32236/1000000 password has been cracked, hashed: 3982b51a9097aabd3ebbe23491004223, cracked: cortes
32237/1000000 password has been cracked, hashed: 2a0b059e51cc7166bec7f81b0985a1d4, cracked: cops
```

Submission

1. Zip file containing all required files below.
 - Document (pdf format only)
 - a simple description of your implementation/code.
 - a screenshot of the output
 - Folder that contains source codes
 - Codes with comments about what the program does.
2. **The zip file and pdf file** should be named "<student ID>_<name>".
(ex: 12345678_홍길동.zip)

About plagiarism

You must work alone for the assignment. The penalty for cheating is a grade of 0% on the assignment.