

CPSC 1301, Computer Science I Quiz

Quiz 10a

This is a timed test. You have thirty minutes to complete the test. Your deliverable will be a plain text file, that is, an ASCII file with a `.txt` file extension. When you finish the test, upload your deliverable to Canvas. Do not publish your answer to your `git` repository.

You may work with your study partner for this quiz. In fact, working together is strongly encouraged. If you work with a partner, you must each make a separate submission for credit, but you must also include the names of both authors in your submission.

1 Instructions

This quiz covers reading documentation and hashing. Read the documentation for `hashlib`. Then, write a script that accepts input from the user, hashes the input, and prints both the original string and the hash. Implement `hashalgo1()` and `hashalgo2()`¹. Use SHA256. I used a loop to keep hashing strings until the user enters a stop value.

2 Template

```

1 #quiz10a.py
2
3 import hashlib
4
5 print("This is quiz 10a, Hashing")
6
7 def hashalgo1(p):
8     pass
9
10 def hashalgo2(p):
11     pass
12
13 while True:
14     print("Enter a string to hash or 'exit' to quit: ", end = ' ')
15     plain = input()
16     print("You entered [%s]" % plain)
17     if plain.lower() == 'exit':
18         break
19     rv = hashalgo1(plain)
20     print("Using %s, %s is %s" % ('hashalgo1', plain, rv))
21     rv = hashalgo2(plain)
22     print("Using %s, %s is %s" % ('hashalgo2', plain, rv))
23 print("Goodbye")

```

3 Output

```

This is quiz 10a, Hashing
Enter a string to hash or 'exit' to quit: a
You entered [a]
Using hashalgo1, a is ca978112ca1bbdcaf231b39a23dc4da786eff8147c4e72b9807785afee48bb
Using hashalgo2, a is ca978112ca1bbdcaf231b39a23dc4da786eff8147c4e72b9807785afee48bb
Enter a string to hash or 'exit' to quit: my super secret password that no can guess in a million years
You entered [my super secret password that no can guess in a million years]
Using hashalgo1, my super secret password that no can guess in a million years is 5536b951da04d8dd6f34a8878b700312542d6d278cf17086217cb5cbdf9156e3
Using hashalgo2, my super secret password that no can guess in a million years is 5536b951da04d8dd6f34a8878b700312542d6d278cf17086217cb5cbdf9156e3
Enter a string to hash or 'exit' to quit: exit
You entered [exit]
Goodbye

```

¹That is, use two different methods to do the same thing.