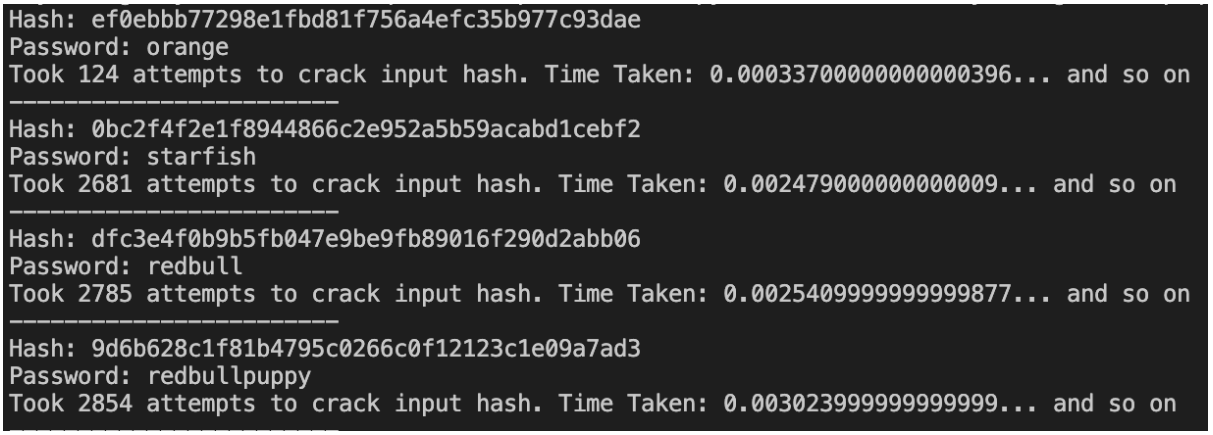
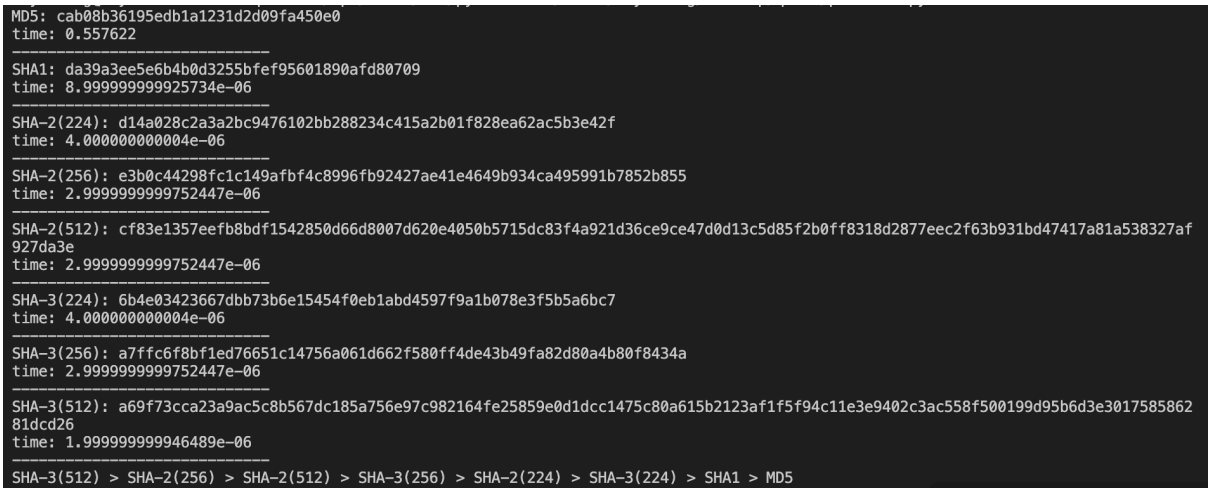
Probelm 1

(a) Password: orange
(b) Password: starfish
(c) Password: puppy (salt term的password是redbullpuppy)



Probelm 2

(a)



(b)
SHA3(512)

(c)
SHA-3(512) > SHA-2(256) > SHA-2(512) > SHA-3(256) > SHA-2(224) > SHA-3(224) > SHA1 > MD5

Problem 3
98可因式分解為 7*14 與 14*7
直接進行分析

平均差異來看14*7較有可能

透過網頁工具
https://www.boxentriq.com/code-breaking/columnar-transposition-cipher

Auto Solve results

Score	Key	Text
41016	ebfgadc	the question of wage and price controls will have to be faced in sixty eight if congress does not approve a tax increase

得知plain text為 the question of wage and price controls will have to be faced in sixty eight if congress does not approve a tax increase