

```

1 # KGBerryKrunch
2 # Not Your Average Cereal Box Cipher
3 #
4 # Author: Ryan Kramlich
5 # I am writing this in python so that I may easily translate it into Objective-C for my
  iPhone project.
6 # If you are fortunate enough for me to share this code with you, then I probably trust you
  as this is a secret algorithm of mine ;)
7 #
8 # THIS IS THE MODULE VERSION(all interaction in command line)
9
10 # imports and globals
11
12 import sys
13
14 letterArray =
    ['A','a','B','b','C','c','D','d','E','e','F','f','G','g','H','h','I','i','J','j','K','k','L',
    'l',
15     'M','m','N','n','O','o','P','p','Q','q','R','r','S','s','T','t','U','u','V','v','W','w','X',
    'x','Y','y','Z','z',
16     '0','1','2','3','4','5','6','7','8','9']
17 space_code = 'q34'
18 manual = '''
19 USAGE: python LibKGBerryKrunch.py [Operation] [Message] [Password]
20
21 [Operation] - E for Encrypt, D for decrypt.
22
23 [Message] - Depending on operation, message to be encoded or encoded message.
24 (If the message is more than 1 word, put it in quotes)
25
26 [Password] - Password
27 '''
28
29 # Methods
30
31 def main():
32     check_params()
33     option1 = sys.argv[1]
34     option1 = option1.upper()
35     phrase = sys.argv[2]
36     key = sys.argv[3]
37
38     if option1 == 'E':
39         phrase = cleanse(phrase)
40         phrase = phrase.replace(' ',space_code)
41         key2 = cleanse(key)
42         if key != key2:
43             print 'Invalid password. Letters and numbers only.'
44             sys.exit()
45         print encrypt(phrase,key)
46     else:
47         print decrypt(phrase,key)
48
49 def check_params():
50     if len(sys.argv) != 4:
51         print manual
52         sys.exit()
53     if sys.argv[1] != 'E' and sys.argv[1] != 'D':
54         print manual
55         sys.exit()
56     if sys.argv[1] == 'D' and ' ' in sys.argv[2]:
57         print manual

```

```

58         sys.exit()
59
60 def cleanse(phrase):
61     phrase = phrase.replace('&', '')
62     phrase = phrase.replace('/', '')
63     phrase = phrase.replace('*', '')
64     phrase = phrase.replace('_', '')
65     phrase = phrase.replace('?', '')
66     phrase = phrase.replace('!', '')
67     phrase = phrase.replace(',', '')
68     phrase = phrase.replace('.', '')
69     return phrase
70
71 def encrypt(phrase, key):
72     finalPhrase = ''
73     finalPhrase_dashes = ''
74     keyLength = len(key)
75     for i in range(len(phrase)):
76         finalPhrase += addLetters(phrase[i], key[i%keyLength])
77     for i in range(len(finalPhrase)):
78         finalPhrase_dashes += finalPhrase[i]
79         if i != 0 and i % 4 == 0:
80             finalPhrase_dashes += '-'
81     if finalPhrase_dashes[len(finalPhrase_dashes) - 1] == '-':
82         finalPhrase_dashes = finalPhrase_dashes[:len(finalPhrase_dashes) - 1]
83     return finalPhrase_dashes
84
85 def decrypt(phrase, key):
86     phrase = phrase.replace('-', '')
87     finalPhrase = ''
88     keyLength = len(key)
89     for i in range(len(phrase)):
90         finalPhrase += subtractLetters(phrase[i], key[i%keyLength])
91     finalPhrase = finalPhrase.replace(space_code, ' ')
92     return finalPhrase
93
94 def addLetters(a, b):
95     abSum = letterArray.index(a) + letterArray.index(b)
96     sumLetter = letterArray[abSum % len(letterArray)]
97     return sumLetter
98
99 def subtractLetters(a, b):
100     if letterArray.index(a) > letterArray.index(b):
101         abDiff = letterArray.index(a) - letterArray.index(b)
102     else:
103         abDiff = len(letterArray) - (letterArray.index(b) - letterArray.index(a))
104     diffLetter = letterArray[abDiff % len(letterArray)]
105     return diffLetter
106
107 if __name__ == '__main__':
108     main()

```