

Branch: master ▾

Jurnal-Sandi / task1 / main.py

Find file

Copy path

 riochr17 final vigenere + playfair

9fddaf6 3 minutes ago

1 contributor

147 lines (127 sloc) | 4.97 KB

```
1 import sys
2 from file_handler import FileHandler
3 from vigenere import Vigenere
4 from playfair import PlayFair
5
6 def main():
7
8     NUMBER_SEPARATED = False
9     FILE_OUTPUT = False
10
11     if len(sys.argv) == 7:
12         try:
13             NUMBER_SEPARATED = int(sys.argv[6])
14         except ValueError:
15             NUMBER_SEPARATED = 0
16             FILE_OUTPUT = sys.argv[6]
17
18     def print_help():
19         print "+ "
20         print "+ usage:"
21         print "- python main.py playfair string dec \"sony\" \"XXXXXX\""
22         print "- python main.py playfair string enc \"sony\" \"WELCOME TO THE JUNGLE\""
23         print "- python main.py playfair text dec \"sony\" \"chiper.txt\""
24         print "- python main.py playfair text enc \"sony\" \"plain.txt\""
25         print "- python main.py vigenere string dec \"sony\" \"XXXXXX\""
26         print "- python main.py vigenere string enc \"sony\" \"WELCOME TO THE JUNGLE\""
27         print "- python main.py vigenere text dec \"sony\" \"chiper.txt\""
28         print "- python main.py vigenere text enc \"sony\" \"plain.txt\""
29         print "- python main.py vigenere file dec \"sony\" \"a.txt\" \"b.txt\""
30         print "- python main.py vigenere file enc \"sony\" \"a.txt\" \"b.txt\""
31         print "- python main.py vigenere-x string dec \"sony\" \"XXXXXX\""
32         print "- python main.py vigenere-x string enc \"sony\" \"WELCOME TO THE JUNGLE\""
33         print "- python main.py vigenere-x text dec \"sony\" \"chiper.txt\""
34         print "- python main.py vigenere-x text enc \"sony\" \"plain.txt\""
35
36     argc = len(sys.argv)
37
38     if argc < 6:
39         print "+ Error: argument must take min. 6"
40         print_help()
41         exit()
42
43     if sys.argv[1] != "vigenere" and sys.argv[1] != "vigenere-x" and sys.argv[1] != "playfair":
44         print "+ Error: use vigenere/vigenere-x/playfair on fisrt argument"
45         print_help()
46         exit()
47
48     if sys.argv[2] != "file" and sys.argv[2] != "string" and sys.argv[2] != "text":
49         print "+ Error: use file/string/text on second argument"
50         print_help()
51         exit()
52
53     if sys.argv[3] != "dec" and sys.argv[3] != "enc":
54         print "+ Error: use enc/dec on third argument"
55         print_help()
56         exit()
57
58     if sys.argv[1] == "vigenere":
```

```

59         if sys.argv[2] == "file":
60             vg = Vigenere(sys.argv[4])
61             if sys.argv[3] == "dec":
62                 vg.decFile(sys.argv[5], sys.argv[6])
63                 print "File " + str(sys.argv[5]) + " succesfully decrypted to " + str(sys.argv[6])
64             if sys.argv[3] == "enc":
65                 vg.encFile(sys.argv[5], sys.argv[6])
66                 ct = "File " + str(sys.argv[5]) + " succesfully encrypted to " + str(sys.argv[6])
67                 print ct
68
69         elif sys.argv[2] == "string":
70             vg = Vigenere(sys.argv[4])
71             if sys.argv[3] == "dec":
72                 print vg.dv(sys.argv[5])
73             if sys.argv[3] == "enc":
74                 ct = vg.ev(sys.argv[5])
75                 if not FILE_OUTPUT:
76                     print FileHandler().outputFormatter(ct, NUMBER_SEPARATED) if NUMBER_SEPARATED else ct
77                 else:
78                     FileHandler().writeToFile(FILE_OUTPUT, ct)
79
80         elif sys.argv[2] == "text":
81             vg = Vigenere(sys.argv[4])
82             if sys.argv[3] == "dec":
83                 print vg.decrypt(open(sys.argv[5], 'r').read())
84             if sys.argv[3] == "enc":
85                 ct = vg.encrypt(open(sys.argv[5], 'r').read())
86                 if not FILE_OUTPUT:
87                     print FileHandler().outputFormatter(ct, NUMBER_SEPARATED) if NUMBER_SEPARATED else ct
88                 else:
89                     FileHandler().writeToFile(FILE_OUTPUT, ct)
90
91         else:
92             print "+ Error: use only file/string/text on Vigenere chiper third argument"
93
94     if sys.argv[1] == "vigenere-x":
95         if sys.argv[2] == "string":
96             vg = Vigenere(sys.argv[4])
97             if sys.argv[3] == "dec":
98                 print vg.dv(sys.argv[5], is_extended = True)
99             if sys.argv[3] == "enc":
100                 ct = vg.ev(sys.argv[5], is_extended = True)
101                 if not FILE_OUTPUT:
102                     print FileHandler().outputFormatter(ct, NUMBER_SEPARATED) if NUMBER_SEPARATED else ct
103                 else:
104                     FileHandler().writeToFile(FILE_OUTPUT, ct)
105
106         elif sys.argv[2] == "text":
107             vg = Vigenere(sys.argv[4])
108             if sys.argv[3] == "dec":
109                 print vg.decrypt(open(sys.argv[5], 'r').read(), is_extended = True)
110             if sys.argv[3] == "enc":
111                 ct = vg.encrypt(open(sys.argv[5], 'r').read(), is_extended = True)
112                 if not FILE_OUTPUT:
113                     print FileHandler().outputFormatter(ct, NUMBER_SEPARATED) if NUMBER_SEPARATED else ct
114                 else:
115                     FileHandler().writeToFile(FILE_OUTPUT, ct)
116
117         else:
118             print "+ Error: use only string/text on Vigenere extended chiper third argument"
119
120     if sys.argv[1] == "playfair":
121         if sys.argv[2] == "string":
122             pf = PlayFair(sys.argv[4])
123             if sys.argv[3] == "dec":
124                 print pf.decrypt(sys.argv[5])
125             if sys.argv[3] == "enc":
126                 ct = pf.encrypt(sys.argv[5])
127                 if not FILE_OUTPUT:
128                     print FileHandler().outputFormatter(ct, NUMBER_SEPARATED) if NUMBER_SEPARATED else ct

```

```
129         else:
130             FileHandler().writeToFile(FILE_OUTPUT, ct)
131
132     elif sys.argv[2] == "text":
133         pf = PlayFair(sys.argv[4])
134         if sys.argv[3] == "dec":
135             print pf.decrypt(open(sys.argv[5], 'r').read())
136         if sys.argv[3] == "enc":
137             ct = pf.encrypt(open(sys.argv[5], 'r').read())
138             if not FILE_OUTPUT:
139                 print FileHandler().outputFormatter(ct, NUMBER_SEPARATED) if NUMBER_SEPARATED else ct
140             else:
141                 FileHandler().writeToFile(FILE_OUTPUT, ct)
142
143     else:
144         print "+ Error: use only string/text on Playfair chipper third argument"
145
146 if __name__=="__main__":
147     main()
```