

```

1. #!/usr/bin/python
2. # -*- coding: utf-8 -*-
3. # Brandon Bryant
4. import sys,os,namesake,binsascii,hashlib
5.
6. def main():
7.     wrapper_file,output_folder = "", "" # we need to store our file for analysis and where we are going to output the file
8.     for arg in sys.argv:
9.         if arg[0:2] == '-w':
10.             wrapper_file = arg[2:]
11.         if arg[0:2] == '-o':
12.             output_folder = arg[2:]
13.     if (wrapper_file == '' or output_folder == ''):
14.         print "You must input a file to analysis and a folder name to output to"
15.         sys.exit() # exit if wrapper and output folder not specified
16.     decode(wrapper_file,output_folder)
17.
18. def decode(w,f):
19.     filetype = [] # initialize our filetype array
20.     jpg = {'header':"F000FF", 'footer':"FF00FF", 'filetype':"jpg"}
21.     pdf = {'header':"25504d44", 'footer':"4d4d4d44", 'filetype':"pdf"}
22.     gif = {'header':"47454e44", 'footer':"4b003b", 'filetype':"gif"}
23.     png = {'header':"9d5050e1", 'footer':"494e4e4e202e", 'filetype':"png"}
24.     docx = {'header':"50402024", 'footer':"5040202e", 'filetype':"docx"}
25.     filetypes.append([jpg,pdf,gif,png,docx,jpg]) read our filetypes to the filetype array
26.     if os.path.exists(w):
27.         input_file = open(w,"r") # open our wrapper if exists
28.     else:
29.         sys.exit("File doesn't exist")
30.     if not os.path.exists(f):
31.         os.makedirs(f) # create the output folder
32.     data = input_file.read() # read and store data to variable from wrapper
33.     decoded = binsascii.unhexlify(data) # decode the file from hex
34.     decoded = binsascii.hexlify(decoded) # convert the data to string hex format
35.     i,begin,end = 0,0,0 # initialize useful variables
36.     found_begin,found_end = False,False # initialize useful variables
37.     for filetype in filetypes: #loop through each filetype
38.         while i < len(decoded): #loop over the contents of the file
39.             if (decoded[i:len(filetype['header'])]) == filetype['header'] and not found_begin: #search for the header
40.                 begin = i # store the location of the first byte of the header
41.                 found_begin = True #header is found
42.                 if (decoded[i+len(filetype['footer'])]) == filetype['footer'] and not found_end: #search for the footer
43.                     end = i+len(filetype['footer']) #search for the whole footer
44.                 found_end = True #footer is found
45.                 break #we are done need to continue
46.             i += 1 # advance to the next byte (or half byte)
47.             if (filetype['filetype']=="docx"): # docx requires extra padding
48.                 decoded,alt = binsascii.unhexlify(decoded[begin:end+("10")])
49.             else:
50.                 decoded,alt = binsascii.unhexlify(decoded[begin:end]) #output the header+footer
51.             s = hashlib.md5() #here we are going to hash the file for namesake
52.             s.update(decoded,alt,'sha512')
53.             s_md5 = s.hexdigest() #hash
54.             file = open(f+"/"+s_md5+"-a_md5-"+filetype['filetype'],"w") #create output file
55.             file.write(decoded,alt) # write to file
56.             file.close() #close file
57.             i,begin,end = 0,0,0
58.             found_begin,found_end = False,False
59.
60. main()

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