```
1 from pydrive.auth import GoogleAuth
 2 from pydrive.drive import GoogleDrive as PyDriveGoogleDrive
 3 #from tkinter import Tk
 4 #from tkinter.filedialog import askopenfilename
 5 from tkinter.filedialog import asksaveasfile
 6 #from threadsafe_tkinter import *
 7 from easygui import fileopenbox
 8 from easygui import filesavebox
9 import ntpath
10 from Crypto.Cipher import AES
11 from app.models import Group
12 import os
13
14 class GoogleDrive():
15
       gauth = None
       drive = None
16
17
18
       def __init__(self):
19
           self.gauth = GoogleAuth()
20
           self.gauth.LoadCredentialsFile("mycreds.txt")
21
           if self.gauth.credentials is None:
22
               # Authenticate if they're not there
23
               self.gauth.LocalWebserverAuth()
24
           elif self.gauth.access token expired:
25
               # Refresh them if expired
26
               self.gauth.Refresh()
27
           else:
               # Initialize the saved creds
28
29
               self.gauth.Authorize()
30
           # Save the current credentials to a file
           self.gauth.SaveCredentialsFile("mycreds.txt")
31
32
33
           self.drive = PyDriveGoogleDrive(self.gauth)
34
35
       def getFiles(self):
           return self.drive.ListFile({'q': "'1a ZOqi75h6nTvsUEPDi8NGUrb9Tk-dkh' in parents and
36
   trashed=false"}).GetList()
37
38
       def getFilesInFolder(self, folder):
           return self.drive.ListFile({'q': "'" + folder + "' in parents and
39
   trashed=false"}).GetList()
40
       def uploadFile(self, folder, groupId):
41
42
           #Tk().withdraw() # we don't want a full GUI, so keep the root window from appearing
           filepath = fileopenbox() # show an "Open" dialog box and return the path to the selected
43
   file
           file = self.drive.CreateFile({'title': ntpath.basename(filepath), 'parents': [{'kind':
44
    drive#fileLink', 'id': folder}]})
           f = open(filepath, 'rb')
45
46
           self.encrypt(groupId, f.read())
           file.SetContentFile('encrypted.bin')
47
48
           file.Upload()
           #if os.path.exists('encrypted.bin'):
49
50
                os.remove('encrypted.bin')
51
52
       def downloadFile(self, id, title, groupId):
           file = self.drive.CreateFile({'id': id})
53
           file.GetContentFile('title')
54
55
           file.GetContentFile('encrypted.bin')
56
           #Tk().withdraw()
57
           destination = filesavebox()
58
           if destination is None:
59
               return
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60
           self.decrypt(groupId, destination)
61
           #file.GetContentFile(destination)
62
       def createGroup(self, title):
63
           folder = self.drive.CreateFile({'title': title, 'mimeType' : 'application/vnd.google-
64
   apps.folder', 'parents': [{'kind': 'drive#fileLink', 'id': '1a_ZOqi75h6nTvsUEPDi8NGUrb9Tk-
   dkh'}]})
65
           folder.Upload()
           return folder['id']
66
67
68
       def encrypt(self, groupId, data):
           key = Group.objects.get(id=groupId).key
69
           cipher = AES.new(key, AES.MODE_EAX)
70
           ciphertext, tag = cipher.encrypt_and_digest(data)
71
           file_out = open("encrypted.bin", "wb")
72
73
           [ file_out.write(x) for x in (cipher.nonce, tag, ciphertext) ]
74
75
       def decrypt(self, groupId, destination):
76
           key = Group.objects.get(id=groupId).key
77
           file_in = open("encrypted.bin", "rb")
78
           nonce, tag, ciphertext = [ file in.read(x) for x in (16, 16, -1) ]
79
           cipher = AES.new(key, AES.MODE_EAX, nonce)
           data = cipher.decrypt_and_verify(ciphertext, tag)
80
81
           typeofdata = type(data)
           file_out = open(destination, "wb")
82
83
           file out.write(data)
84
85
       def fucksake(self):
           with open('E:\\TEST1.PNG', 'rb') as f1:
86
               with open('E:\\uggggggh.png', 'wb') as f2:
87
88
                   f2.write(f1.read())
```

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