# Database documentation

Below is the code (expand code block) of a python file which should produce [txt](https://confluence.kapschtraffic.com/download/attachments/53287962/db_2018-03-30_15-31-46.txt?version=2&modificationDate=1523449802058&api=v2), [html](https://confluence.kapschtraffic.com/download/attachments/53287962/db_2018-03-30_15-31-46.html?version=2&modificationDate=1522844725429&api=v2) and [pdf](https://confluence.kapschtraffic.com/download/attachments/53287962/db_2018-03-30_15-31-46.pdf?version=1&modificationDate=1522844725632&api=v2) file with database structure and type of data for each column.

If you doubt that the database has changed, you can run this script and compare structure. Useful tool to compare 2 txt files with almost same content is [Compare plugin for Notepad++](https://confluence.kapschtraffic.com/download/attachments/53287962/ComparePlugin.v1.5.6.2.bin.zip?version=1&modificationDate=1522844457360&api=v2) .

Simply open both files in Notepad++ and start plugin under Plugins > Compare > Compare (Alt + D)

[db\_2018-04-11\_14-25-15.txt](https://confluence.kapschtraffic.com/download/attachments/53287962/db_2018-04-11_14-25-15.txt?version=1&modificationDate=1523449850491&api=v2) - old file

[db\_2018-05-09\_10-55-00.txt](https://confluence.kapschtraffic.com/download/attachments/53287962/db_2018-05-09_10-55-00.txt?version=1&modificationDate=1525856162768&api=v2) - new file

Code Block 1 Database Documenting

|  |
| --- |
| import psycopg2 import webbrowser import time from fpdf import FPDF  #db connection try:  conn = psycopg2.connect("dbname='**my\_database**' user='postgres' host='localhost' password='postgres'")  print('Connected successfully \n\n') except:  print("Unable to connect to the database")  #find all table names cur = conn.cursor() cur.execute(""" SELECT DISTINCT table\_name FROM information\_schema.tables WHERE table\_schema = '**my\_schema**' """) tables = cur.fetchall()  d = time.strftime("%Y-%m-%d\_%H-%M-%S") pre\_file\_name = 'db\_'+str(d) html\_file = pre\_file\_name+'.html' text\_file = pre\_file\_name+'.txt' pdf\_file = pre\_file\_name+'.pdf'  pdfWriter = FPDF() pdfWriter.add\_page() pdfWriter.set\_xy(0, 0) pdfWriter.set\_font('arial', '', 12.0)  #write title f = open(text\_file, 'w') f.write('TABLES WITH COLUMN NAMES AND DATA TYPES') pdfWriter.multi\_cell(w=300, h=5, txt=str('IOPHUB TABLES WITH COLUMN NAMES AND DATA TYPES'), border=0, align='L', fill=False)  #write PDF and TXT files with columns and data types try:  for table in tables:  t = str(table[0])  r = "SELECT COLUMN\_NAME, DATA\_TYPE FROM INFORMATION\_SCHEMA.COLUMNS WHERE table\_schema = '**my\_schema**' and TABLE\_NAME = '" + str(t) + "'"   cur.execute(r)  rows = cur.fetchall()  t\_name = '\n\n'+ t.upper() +'\n'  print(t\_name)  f.write(t\_name)  pdfWriter.multi\_cell(w=300, h=5, txt=str(t\_name), border=0, align='L', fill=False)  i = 1  for row in rows:  data = str(i) + ". " + str(row[0]) + " - " + str(row[1])  print(data)  f.write(data+'\n')  pdfWriter.multi\_cell(w=300, h=5, txt=str(data), border=0, align='L', fill=False)  i+=1  pdfWriter.output(pdf\_file, 'F')  f.close()  except Exception as e:  print(str(e))  #convert from TXT file to HTML m = open(text\_file,'r').read() f = open(html\_file,'w') f.write("<html>\n<body>\n<pre>\n") f.write(str(m)) f.write("</pre>\n</body>\n</html>\n") f.close() |