# PROJECT-B: Documentation

# **TEAM: PANDAS**

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1. Import sqlite3 and configure the database ‘chinook.db’. moreover use ‘con’ variable to establish connection to the sqlite3 database.

*import sqlite3*

*con = sqlite3.connect('chinook.db')*

1. Define the cursor object with name, ‘cur’.

*cur = con.cursor()*

1. Store the required query to select name from table into string ‘query’. Exectue the query using cursor and fetch everything and store it into a list named ‘lista’. Create a empty dictionary named dictOftables.

*query = """select name from sqlite\_master where type="table" """*

*cur.execute(query)*

*lista = cur.fetchall()*

*dictOftables={}*

1. Iterate through all the table names in lista and extract everything from each table using cursor and store the description in listb. Iterate again through listb and store ten track ids for each playlist id.

*for table in lista:*

*cur.execute("select \* from {} ".format(table[0]))*

*listb = cur.description*

*for i in range(len(listb)):*

*if listb[i][0] in dictOftables:*

*dictOftables[listb[i][0]].append(table[0])*

*else:*

*dictOftables[listb[i][0]]=[table[0]]*

1. Fetch the tables having both the columns, ‘TrackId’ and ‘PlaylistId’.

*list\_trackId=dictOftables['TrackId']*

*list\_playlistId=dictOftables['PlaylistId']*

1. Search for the table which has both ‘TrackId’ and ‘PlaylistId’ using intersection of sets and store it in a list. Store the playlist ids for which you want the corresponding track ids into ‘listOfPlaylistid’.

*tablea = list(set(list\_trackId) & set(list\_playlistId))*

*listOfPlaylistId=[1,5,17,10]*

*dictofTracks={}*

1. Loop through the range of playlist ids and fetch the data into listc, after which iterate through each of the track ids and store the corresponding album ids and music title into ‘tableb’.

*for i in range(len(listOfPlaylistId)):*

*cur.execute("select \* from {} where PlaylistId={} ".format(tablea[0],listOfPlaylistId[i]))*

*listc = cur.fetchall()*

*for j in range(10):*

*if listc[j][0] in dictofTracks:*

*dictofTracks[listc[j][0]].append(listc[j][1])*

*else:*

*dictofTracks[listc[j][0]]=[listc[j][1]]*

*tableb = list(set(list\_trackId) & set(dictOftables['AlbumId']))*

1. Write the data into a text file, ‘ProjectB\_Output\_final.txt’ along with correct headers.

*f = open("ProjectB\_Output\_final.txt", "a")*

*f.write("TrackId\t")*

*f.write("AlbumId\t")*

*f.write("Name\t\n")*

*for i in range(len(dictofTracks)):*

*for j in range(len(dictofTracks[listOfPlaylistId[i]])):*

*cur.execute("select TrackId,AlbumId,Name from {} where TrackId={}".format(tableb[0],dictofTracks[listOfPlaylistId[i]][j]))*

*listd=cur.fetchall()*

*f.write(str(listd[0][0])+'\t')*

*f.write(str(listd[0][1])+'\t')*

*f.write(listd[0][2])*

*f.write('\n')*

1. Close the file.

*f.close()*

# **OUTPUT:**

# **C:\Users\admin\Desktop\Python Codes\Project\ProjectB\OUTPUT_B-FINAL.PNG**