import sqlite3

import pandas as pd

# Connect to the SQLite database

conn = sqlite3.connect('your\_database.db')

# Solution 1: Pure SQL

sql\_query = """

SELECT c.customer\_id, c.customer\_age, p.item\_id, SUM(p.quantity) AS total\_quantity

FROM customers c

JOIN purchases p ON c.customer\_id = p.customer\_id

WHERE c.customer\_age BETWEEN 18 AND 35

GROUP BY c.customer\_id, p.item\_id

HAVING total\_quantity > 0

"""

# Execute the SQL query

cursor = conn.execute(sql\_query)

# Fetch all the results

results\_sql = cursor.fetchall()

# Solution 2: Using Pandas

df = pd.read\_sql\_query(sql\_query, conn)

results\_pandas = df.values.tolist()

# Close the database connection

conn.close()

# Writing results to CSV file

output\_filename = 'customer\_item\_quantities.csv'

# Using SQL results

with open(output\_filename, 'w') as csvfile:

csvfile.write("Customer;Age;Item;Quantity\n")

for row in results\_sql:

csvfile.write(";".join(str(cell) for cell in row) + "\n")

# Using Pandas results

# df.to\_csv(output\_filename, sep=';', index=False, header=True) # Uncomment this line if you want to use Pandas results