CS542: Homework 4

Using SQLite, **develop and execute a single SQL (unless noted otherwise) for each of the following queries** using the "tpch.db" database:

Problem 1 (SQL) [10 Points]
Report the total quantity (i.e., the sum) of all items that belong to orders with '1-URGENT' order priority (must use inner join).

Problem 2 (SQL) [10 Points]
Create a view on the SQL query of Problem 1 above. Then write another query to select from the view. Your answer must include both the view definition and the query selecting from the view.

Problem 3 (SQL) [10 Points]
Report the total quantity (i.e., the sum) of all items that belong to orders with '1-URGENT' order priority (must use subquery).

Problem 4 (SQL) [10 Points]
Create a view on the SQL query of Problem 3 above. Then write another query to select from the view. Your answer must include both the view definition and the query selecting from the view.

Problem 5 (SQL) [30 Points]
Report the total quantity (i.e., the sum) of all items that belong to orders that are placed by customers from the nation of 'EGYPT'. Hint: you need to join four tables to answer this query.

Problem 6 (SQL) [30 Points]
Report the total quantity (i.e., the sum) of all items that belong to orders that are placed by customers from a nation that is in the region of 'AFRICA'. Hint: you need to join five tables to answer this query.

Deliverables:
Each student should deliver a report containing the required solution. Your final **submission must be uploaded to Canvas in pdf format.** Your report **must** contain a screenshot of the actual **SQL** and the **output** of executing the query. For instance, the answer of Problem 1 above in your report would look like the following:

Problem 1 (SQL) [10 Points]
Report the total quantity (i.e., the sum) of all items that belong to orders with '1-URGENT' order priority (must use inner join).

```
[sqlite> select sum(l_quantity)
[   ...> from lineitem, orders
[   ...> where l_orderkey = o_orderkey
[   ...> and o_orderpriority = '1-URGENT';
 sum(l_quantity)
 ---------------
 30656613
```