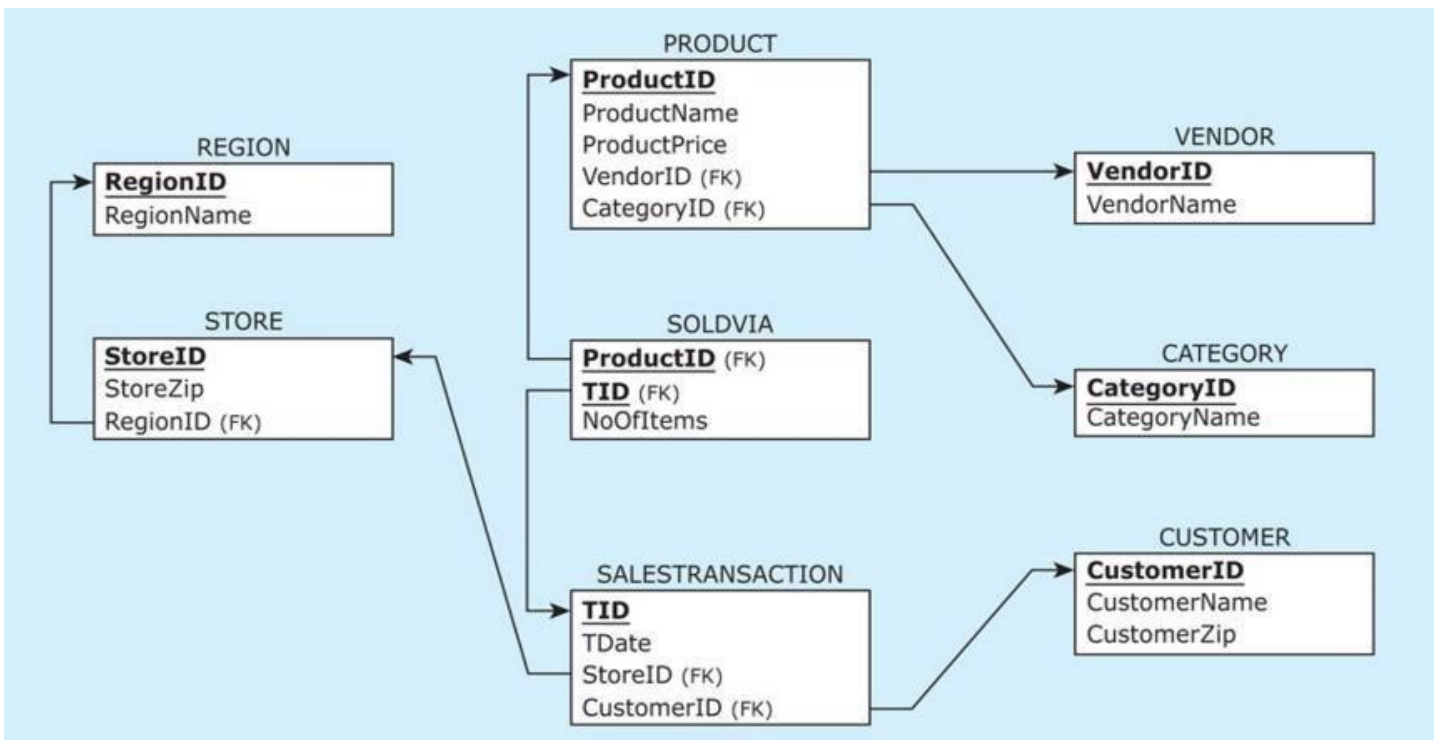


The objective of this lab is to get hands-on experience writing SQL queries using JOINS:

- INNER JOIN
- NATURAL JOIN
- OUTER JOIN
  - LEFT OUTER JOIN
  - RIGHT OUTER JOIN
  - FULL OUTER JOIN
- CROSS JOIN

For this lab, we use the retail company database, but we must update it with new data. Download UpdateTables.sql script from D2L and run it. Make sure that the script runs without any error.



### SUBMISSION

Create Lab8\_YourFullName.sql file and copy your SQL statements into it and submit it before the due time.

### GRADING

Each query is of five points.

### QUERIES

1. Retrieve the TID, CustomerName, and TDate of sale transactions that a customer bought a product whose ProductName is Dura Boot. (This query is from Lab7 that you did it by Cartesian Product and we want to re-write it using INNER JOIN only (or simply JOIN). We must get the same result as lab7-query1 even though we write the query using INNER JOIN)
2. Re-Write Query1 using NATURAL JOIN only. (Make sure you get the same result as query 1)

3. Re-Write Query1 using CROSS JOIN only. (Make sure you get the same result as query 1)
4. Retrieve region name and StoreID, and storeZip of stores in each region. If there is a region where there is no store in it, we still want to see the name of that region on the result (Count how many rows are displayed as a result of this query (17?) and make sure you see that there are 3 regions where there is no store in them (StoreID in the second column of the result is null )) Hint: use LEFT JOIN
5. Re-write query4 such that the query result displays only regions where there are stores in it. (Count how many rows are displayed as a result of this query (17-3=14?) and make sure you Do NOT see those 3 regions where there is no store in them. Hint: use INNER JOIN
6. Re-Write query5 using RIGHT JOIN. Do you get the same result as query5? Why?
7. Display ProductID and ProductName of all products that were not sold. (Hint: You must join Product and SoldVia tables and find the products that their TID is NULL (You must find what type of JOIN must be used in this case. You must see three products that were not sold) )
8. This query is on HAFH database. Display CCID and CCName of all CorpClients and AptNo and BuildingID of All apartments. We are interested to see all CorpClients even though they did not lease any apartment. We are interested to see also all apartments even though no CorpClient leased them. Hint: use FULL JOIN (Make sure you see more null values than previous queries in the result because some apartments in B1 and B2 were not leased by any CorpClient and C888 and C333 never rented any apartment)

Relational schema: HAFH Realty Company Property Management Database

