**Correlated Subqueries: In-class exercise 2**

Assume we are using the same database as in in-class exercise 1.

The current contents of the PRODUCT table are shown here (selected columns only shown). P\_QOH is the quantity on hand currently. P\_MIN is the minimum quantity on hand that is acceptable.

**P\_CODE P\_QOH P\_MIN V\_CODE**

**---------- ---------- ---------- ----------**

**11QER/31 8 5 25595**

**13-Q2/P2 32 15 21344**

**14-Q1/L3 18 12 21344**

**1546-QQ2 15 8 23119**

**1558-QW1 23 5 23119**

**2232/QTY 8 5 24288**

**2232/QWE 6 5 24288**

**2238/QPD 12 5 25595**

**23109-HB 23 10 21225**

**23114-AA 8 5**

**54778-2T 43 20 21344**

**89-WRE-Q 11 5 24288**

**PVC23DRT 188 75**

**SM-18277 172 75 21225**

**SW-23116 237 100 21231**

**WR3/TT3 18 5 25595**

The VENDOR table is shown here (selected columns only shown)

**V\_CODE V\_NAME**

**---------- -----------------------------------**

**21225 Bryson, Inc.**

**21226 SuperLoo, Inc.**

**21231 D&E Supply**

**21344 Gomez Bros.**

**22567 Dome Supply**

**23119 Randsets Ltd.**

**24004 Brackman Bros.**

**24288 ORDVA, Inc.**

**25443 B&K, Inc.**

**25501 Damal Supplies**

**25595 Rubicon Systems**

We want to find the vendor information for those products that may need to be ordered soon. We will say that a product needs to be ordered soon if the quantity on hand is less than twice the minimum acceptable quantity on hand. We will go through VENDOR line by line. For each vendor, see if there is any row in PRODUCT that satisfies this criteria.

For vendor 21225, we find two rows in PRODUCT:

**23109-HB 23 10 21225**

**SM-18277 172 75 21225**

However, the criteria is not satisfied for either row, because in each case, the quantity on hand is at least as large as twice the minimum acceptable quantity. So for vendor 21225, we know that no such rows exist in PRODUCT.

Continue through the remaining vendors and complete the table below, writing “No such rows exist” or “Rows exist” as the case may be.

|  |  |
| --- | --- |
| **V\_CODE** |  |
| 21225 | No such rows exist |
| 21226 |  |
| 21231 |  |
| 21344 |  |
| 22567 |  |
| 23119 |  |
| 24004 |  |
| 24288 |  |
| 25443 |  |
| 25501 |  |
| 25595 |  |

Write the vendor code and name for each vendor where you have written “Rows exist”.

The steps you just went through are the steps required for the following correlated subquery. Note that for each row in VENDOR we first executed the inner query, then used that result to determine if the current row should be included in the result set.

**select v\_code, v\_name**

**from vendor**

**where exists**

**(select \***

**from product**

**where p\_qoh < p\_min \* 2**

**and vendor.v\_code = product.v\_code);**