## Query 6: Rewrite Query 1 without CUBE, ROLLUP, or GROUPING SETS

Rewrite query 1 without the usage of the CUBE ROLLUP, or GROUPING SETS operators. In rewriting the query, you should use NULL as the default value for each column.

SELECT D.calmonth,NULL, sum(I.QUANTITY)as tot\_qun, sum(I.EXTCOST) as tot\_extcost

FROM date\_dim D INNER JOIN inventory\_fact I on D.DATEKEY = I.DATEKEY

INNER JOIN cust\_vendor\_dim C on C.CUSTVENDORKEY = I.CUSTVENDORKEY

WHERE D.CALYEAR = 2011

GROUP BY D.calmonth

UNION

SELECT NULL,C.addrcatcode1, sum(I.QUANTITY)as tot\_qun, sum(I.EXTCOST) as tot\_extcost

FROM date\_dim D INNER JOIN inventory\_fact I on D.DATEKEY = I.DATEKEY

INNER JOIN cust\_vendor\_dim C on C.CUSTVENDORKEY = I.CUSTVENDORKEY

WHERE D.CALYEAR = 2011

GROUP BY C.addrcatcode1

UNION

SELECT D.calmonth,C.addrcatcode1, sum(I.QUANTITY)as tot\_qun, sum(I.EXTCOST) as tot\_extcost

FROM date\_dim D INNER JOIN inventory\_fact I on D.DATEKEY = I.DATEKEY

INNER JOIN cust\_vendor\_dim C on C.CUSTVENDORKEY = I.CUSTVENDORKEY

WHERE D.CALYEAR = 2011

GROUP BY D.calmonth,C.addrcatcode1

UNION

SELECT NULL,NULL, sum(I.QUANTITY)as tot\_qun, sum(I.EXTCOST) as tot\_extcost

FROM date\_dim D INNER JOIN inventory\_fact I on D.DATEKEY = I.DATEKEY

INNER JOIN cust\_vendor\_dim C on C.CUSTVENDORKEY = I.CUSTVENDORKEY

WHERE D.CALYEAR = 2011;

