**END TASK-JOINS**

MariaDB [csd2204w2018]> SELECT COUNT(\*),p.manufacturer,m.name

-> FROM products as p

-> inner join manu m

-> ON m.code=p.manufacturer

-> GROUP BY manufacturer having count(\*) = 2;

+----------+--------------+-----------------+

| COUNT(\*) | manufacturer | name |

+----------+--------------+-----------------+

| 2 | 3 | Hewlett-Packard |

| 2 | 6 | Winchester |

+----------+--------------+-----------------+

2 rows in set (0.10 sec)

MariaDB [csd2204w2018]> SELECT PRODUCTS.CODE, PRODUCTS.NAME, MANU.NAME

-> FROM PRODUCTS

-> LEFT JOIN MANU

-> ON PRODUCTS.CODE = MANU.CODE

-> UNION

-> SELECT PRODUCTS.CODE, PRODUCTS.NAME, MANU.NAME

-> FROM PRODUCTS

-> RIGHT JOIN MANU

-> ON PRODUCTS.CODE = MANU.CODE;

+------+-----------------+-------------------+

| CODE | NAME | NAME |

+------+-----------------+-------------------+

| 1 | Hard drive | Sony |

| 2 | Memory | Creative Labs |

| 3 | ZIP drive | Hewlett-Packard |

| 4 | Floppy disk | Iomega |

| 5 | Monitor | Fujitsu |

| 6 | DVD drive | Winchester |

| 7 | CD drive | moxDroid Labs Inc |

| 8 | Printer | Dell |

| 9 | Toner cartridge | Bell Labs |

| 10 | DVD burner | NULL |

| 11 | Printer | NULL |

| 12 | Toner cartridge | NULL |

| 13 | DVD burner | NULL |

+------+-----------------+-------------------+

13 rows in set (0.07 sec)

MariaDB [csd2204w2018]> SELECT P1.CODE, P1.NAME, P2.NAME

-> FROM Products P1, Products P2

-> WHERE P1.CODE <> P2.CODE;

+------+-----------------+-----------------+

| CODE | NAME | NAME |

+------+-----------------+-----------------+

| 2 | Memory | Hard drive |

| 3 | ZIP drive | Hard drive |

| 4 | Floppy disk | Hard drive |

| 5 | Monitor | Hard drive |

| 6 | DVD drive | Hard drive |

| 7 | CD drive | Hard drive |

| 8 | Printer | Hard drive |

| 9 | Toner cartridge | Hard drive |

| 10 | DVD burner | Hard drive |

| 11 | Printer | Hard drive |

| 12 | Toner cartridge | Hard drive |

| 13 | DVD burner | Hard drive |

| 1 | Hard drive | Memory |

| 3 | ZIP drive | Memory |

| 4 | Floppy disk | Memory |

| 5 | Monitor | Memory |

| 6 | DVD drive | Memory |

| 7 | CD drive | Memory |

| 8 | Printer | Memory |

| 9 | Toner cartridge | Memory |

| 10 | DVD burner | Memory |

| 11 | Printer | Memory |

| 12 | Toner cartridge | Memory |

| 13 | DVD burner | Memory |

| 1 | Hard drive | ZIP drive |

| 2 | Memory | ZIP drive |

| 4 | Floppy disk | ZIP drive |

| 5 | Monitor | ZIP drive |

| 6 | DVD drive | ZIP drive |

| 7 | CD drive | ZIP drive |

| 8 | Printer | ZIP drive |

| 9 | Toner cartridge | ZIP drive |

| 10 | DVD burner | ZIP drive |

| 11 | Printer | ZIP drive |

| 12 | Toner cartridge | ZIP drive |

| 13 | DVD burner | ZIP drive |

| 1 | Hard drive | Floppy disk |

| 2 | Memory | Floppy disk |

| 3 | ZIP drive | Floppy disk |

| 5 | Monitor | Floppy disk |

| 6 | DVD drive | Floppy disk |

| 7 | CD drive | Floppy disk |

| 8 | Printer | Floppy disk |

| 9 | Toner cartridge | Floppy disk |

| 10 | DVD burner | Floppy disk |

| 11 | Printer | Floppy disk |

| 12 | Toner cartridge | Floppy disk |

| 13 | DVD burner | Floppy disk |

| 1 | Hard drive | Monitor |

| 2 | Memory | Monitor |

| 3 | ZIP drive | Monitor |

| 4 | Floppy disk | Monitor |

| 6 | DVD drive | Monitor |

| 7 | CD drive | Monitor |

| 8 | Printer | Monitor |

| 9 | Toner cartridge | Monitor |

| 10 | DVD burner | Monitor |

| 11 | Printer | Monitor |

| 12 | Toner cartridge | Monitor |

| 13 | DVD burner | Monitor |

| 1 | Hard drive | DVD drive |

| 2 | Memory | DVD drive |

| 3 | ZIP drive | DVD drive |

| 4 | Floppy disk | DVD drive |

| 5 | Monitor | DVD drive |

| 7 | CD drive | DVD drive |

| 8 | Printer | DVD drive |

| 9 | Toner cartridge | DVD drive |

| 10 | DVD burner | DVD drive |

| 11 | Printer | DVD drive |

| 12 | Toner cartridge | DVD drive |

| 13 | DVD burner | DVD drive |

| 1 | Hard drive | CD drive |

| 2 | Memory | CD drive |

| 3 | ZIP drive | CD drive |

| 4 | Floppy disk | CD drive |

| 5 | Monitor | CD drive |

| 6 | DVD drive | CD drive |

| 8 | Printer | CD drive |

| 9 | Toner cartridge | CD drive |

| 10 | DVD burner | CD drive |

| 11 | Printer | CD drive |

| 12 | Toner cartridge | CD drive |

| 13 | DVD burner | CD drive |

| 1 | Hard drive | Printer |

| 2 | Memory | Printer |

| 3 | ZIP drive | Printer |

| 4 | Floppy disk | Printer |

| 5 | Monitor | Printer |

| 6 | DVD drive | Printer |

| 7 | CD drive | Printer |

| 9 | Toner cartridge | Printer |

| 10 | DVD burner | Printer |

| 11 | Printer | Printer |

| 12 | Toner cartridge | Printer |

| 13 | DVD burner | Printer |

| 1 | Hard drive | Toner cartridge |

| 2 | Memory | Toner cartridge |

| 3 | ZIP drive | Toner cartridge |

| 4 | Floppy disk | Toner cartridge |

| 5 | Monitor | Toner cartridge |

| 6 | DVD drive | Toner cartridge |

| 7 | CD drive | Toner cartridge |

| 8 | Printer | Toner cartridge |

| 10 | DVD burner | Toner cartridge |

| 11 | Printer | Toner cartridge |

| 12 | Toner cartridge | Toner cartridge |

| 13 | DVD burner | Toner cartridge |

| 1 | Hard drive | DVD burner |

| 2 | Memory | DVD burner |

| 3 | ZIP drive | DVD burner |

| 4 | Floppy disk | DVD burner |

| 5 | Monitor | DVD burner |

| 6 | DVD drive | DVD burner |

| 7 | CD drive | DVD burner |

| 8 | Printer | DVD burner |

| 9 | Toner cartridge | DVD burner |

| 11 | Printer | DVD burner |

| 12 | Toner cartridge | DVD burner |

| 13 | DVD burner | DVD burner |

| 1 | Hard drive | Printer |

| 2 | Memory | Printer |

| 3 | ZIP drive | Printer |

| 4 | Floppy disk | Printer |

| 5 | Monitor | Printer |

| 6 | DVD drive | Printer |

| 7 | CD drive | Printer |

| 8 | Printer | Printer |

| 9 | Toner cartridge | Printer |

| 10 | DVD burner | Printer |

| 12 | Toner cartridge | Printer |

| 13 | DVD burner | Printer |

| 1 | Hard drive | Toner cartridge |

| 2 | Memory | Toner cartridge |

| 3 | ZIP drive | Toner cartridge |

| 4 | Floppy disk | Toner cartridge |

| 5 | Monitor | Toner cartridge |

| 6 | DVD drive | Toner cartridge |

| 7 | CD drive | Toner cartridge |

| 8 | Printer | Toner cartridge |

| 9 | Toner cartridge | Toner cartridge |

| 10 | DVD burner | Toner cartridge |

| 11 | Printer | Toner cartridge |

| 13 | DVD burner | Toner cartridge |

| 1 | Hard drive | DVD burner |

| 2 | Memory | DVD burner |

| 3 | ZIP drive | DVD burner |

| 4 | Floppy disk | DVD burner |

| 5 | Monitor | DVD burner |

| 6 | DVD drive | DVD burner |

| 7 | CD drive | DVD burner |

| 8 | Printer | DVD burner |

| 9 | Toner cartridge | DVD burner |

| 10 | DVD burner | DVD burner |

| 11 | Printer | DVD burner |

| 12 | Toner cartridge | DVD burner |

+------+-----------------+-----------------+

156 rows in set (0.02 sec)