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1  -- UNIVERSITY OF MASSACHUSETTS - LOWELL
2  -- COMP3090: DATABASE I
3  -- STUDENT: PHONG VO - SID: 01790283
4  -- HOMEWORK 6
5  -----
6  -- Product(maker, model, type) |
7  -- PC(model, speed, ram, hd, price) |
8  -- Laptop(model, speed, ram, hd, screen, price) |
9  -- Printer(model, color, type, price) |
10 -----
11
12 -- a) Using two INSERT statements, store in the database the fact that PC model 1100 is
13    made by manufacturer C, has speed 3.2, RAM 1024, hard disk 180, and sells for $2499.
14    INSERT INTO product VALUES ('C', 1100, 'pc');
15    INSERT INTO pc VALUES (1100, 3.2, 1024, 180, 2499);
16
17 --!b) Insert the facts that for every PC there is a laptop with the same manufacturer,
18    speed, RAM, and hard disk, a 17-inch screen, a model number 1100 greater, and a price
19    $500 more.
20    INSERT INTO product
21    (SELECT maker, model+1100, 'laptop'
22     FROM product
23     WHERE type='pc');
24    INSERT INTO laptop
25    (SELECT model+1100, speed, ram, hd, 17, price+500
26     FROM PC);
27
28 -- c) Delete all PC's with less than 100 gigabytes of hard disk.
29    DELETE FROM pc
30    WHERE hd<100;
31
32 -- d) Delete all laptops made by a manufacturer that doesn't make printers.
33    DELETE FROM laptop
34    WHERE model IN (SELECT model
35                    FROM product
36                    WHERE maker IN (SELECT DISTINCT maker
37                                    FROM product
38                                    WHERE maker NOT IN (SELECT maker
39                                                            FROM product
40                                                            WHERE type='printer')));
41
42 -- e) Manufacturer A buys manufacturer B. Change all products made by B so they are now
43    made by A.
44    UPDATE product
45    SET maker='A'
46    WHERE maker='B';
47
48 -- f) For each PC, double the amount of RAM and add 60 gigabytes to the amount of hard
49    disk. (Remember that several attributes can be changed by one UPDATE statement.)
50    UPDATE pc
51    SET ram=ram*2, hd=hd+60;
52
53 --!g) For each laptop made by manufacturer B, add one inch to the screen size and
54    subtract $100 from the price.
55    UPDATE laptop
56    SET screen=screen+1, price=price-100
57    WHERE model IN (SELECT model FROM product WHERE maker='B');

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