

Exercise 2.3.1 from the textbook. The products database consists of 4 relational instances with the following schemas

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Product(maker, model, type)      Laptop(model, speed, ram, hd, screen, price)
PC(model, speed, ram, hd, price)  Printer(model, color, type, price)
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The Product relation gives the manufacturer, model number and type (PC, laptop, or printer) of various products. We assume for convenience that model numbers are unique over all manufacturers and product types; that assumption is not realistic, and a real database would include a code for the manufacturer as part of the model number. The PC relation gives for each model number that is a PC the speed (of the processor, in gigahertz), the amount of RAM (in megabytes), the size of the hard disk (in gigabytes), and the price. The Laptop relation is similar, except that the screen size (in inches) is also included. The Printer relation records for each printer model whether the printer produces color output (true, if so), the process type (laser or ink - jet, typically), and the price.

Task 1

Write the following declarations:

- a) A suitable schema for relation Product.
- b) A suitable schema for relation PC.
- c) A suitable schema for relation Laptop.
- d) A suitable schema for relation Printer.
- e) An alteration to your Printer schema from (d) to delete the attribute color.
- f) An alteration to your Laptop schema from (c) to add the attribute od (optical - disk type, e. g., cd or dvd). Let the default value for this attribute be ' none ' if the laptop does not have an optical disk.

Task 2

- a) Create tables in your database by inputting your SQL declarations into Oracle
- b) Insert several tuples into the tables you have created (you may use the sample data in the textbook or on the course website).
- c) Check your work by issuing a simple SQL query