CSCB20
UTSC
Worksheet 2

January 22, 2018

1. In this exercise we introduce one of our running examples of relational database schema. The database schema consists of four relations, whose schemas are:

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Product(maker, model, type)
PC(model, speed, ram, hd, price)
Laptop(model, speed, ram, hd, screen, price)
Printer(model, color, type, price)
```

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.

The PC relation gives for each model number i.e. PC the speed of the processor, the amount of RAM the size of the HDD and the price.

The Laptop relation is similar except that the screen size 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) and the price. Write the following declarations

(a) A suitable SQL schema for relation Product.

(b) A suitable SQL schema for relation PC.

(c) A suitable SQL schema for relation Laptop.

(d) A suitable SQL schema for relation Printer.