**Submit your solutions (either handwritten answers then scanned, or typed) into your shared folder on or before 8th April, Wednesday.**

This exercise asks you to convert business statements into dependencies.

Consider the relation,

DISK\_DRIVE (Serial\_number, Manufacturer, Model, Batch, Capacity, Retailer).

Each tuple in the relation DISK\_DRIVE contains information about a disk drive with a unique Serial\_number, made by a manufacturer, with a particular model number, released in a certain batch, which has a certain storage capacity and is sold by a certain retailer.

For example, the following tuple

Disk\_drive (‘1978619’, ‘WesternDigital’, ‘A2235X’, ‘765234’, 500, ‘CompUSA’)

Specifies that WesternDigital made a disk drive with serial number 1978619 and model

number A2235X, released in batch 765234; it is 500GB and sold by CompUSA.

Write each of the following dependencies as an FD:

1. The manufacturer and serial number uniquely identifies the drive.
2. A model number is registered by a manufacturer and therefore can’t be used by another manufacturer.
3. All disk drives in a particular batch are the same model.
4. All disk drives of a certain model of a particular manufacturer have exactly the same capacity.