



## **7BUIS030W Data System Concepts and Fundamentals**

### **Tutorial Question -04**

To answer the questions in this tutorial , please refer to Lecture-4 and 5 powerpoint presentation in Blackboard/Studymaterials

#### **Tutorial Question 01**

**Under each question draw the conceptual ERD and the corresponding logical mapping.**

For the following statements 1.1- 1.14 –

- Identify the main entity types
- Identify the main relationship types between the entity types.
- Produce an ERD.
- Determine the multiplicity constraints for each relationship and represent them on the ERD.
- Map this conceptual data model into a full logical data model. To do this, resolve all the relationships one by one and derive the associated relations (i.e. tables) with all the attributes, primary keys and foreign keys. Your solution should consist of a complete logical ERD.

1.1 Publisher publish books

1.2 A driving licence belonging to a driver

1.3 Employee may borrow a laptop

1.4 One player may captain a team

1.5 Students registered in modules

1.6 Advertising company advertising a brand

1.7 The national insurance number of a person

1.8 A course may have one lecturer as course leader.

1.9 One staff may manage a project

1.10 Staffs teaching modules

1.11 Ingredients in a recipe

1.12 Student has ID card

1.13 Staff may lease a car

1.14 One player may lead a team