

# **Faculty of Computer Science and Engineering**

## **Taibah University**

### **CS 371 – Database Systems**

#### **Project Part.2: Logical Design Phase**

**Due: Wednesday - 13/4/2021 at 11:00 pm**

**WORTH 3% of final assessment mark.**

In Part.2 of the project, you will continue working on the same topic of the Database System that you have chosen (i.e., the topic of Part.1 of the project).

In this part, the logical database design phase should be performed. You need to complete the following:

#### **1. Relational Schema**

Once you have completed the EER model along with its data dictionary (i.e., Step1); convert the EER model to a relational schema. So, you supposed to map the EER model to the relational model/schema. Document the relational schema as given in the below:

**Copies** (id, number, itemNo)

**Primary Key** id

**Alternate Key** number

**Foreign Key** itemNo **references** Book(itemNo)

**ON UPDATE CASCADE, ON DELETE CASCADE**

#### **2. Normalization**

You should normalize the Relational schema to Boyce-Codd Normal Form (BCNF) if any relation is not already in BCNF.

**Method of submission:**

- Softcopy submission is required by the due date.
- The first page of the document **must** have your name, students' number, section, course name and code, academic year, instructor name, and Taibah University Logo.

**Late submission:**

25 % of the possible maximum mark for the assessment item will be deducted for each day that the item is late. Assessment items submitted more than four days after the due date will be awarded zero marks.

**Percentage of total grade:**

This assignment carries 2.5% of the overall grade. However, this phase of the project is critical to assist you in completing the further phase of the implementation correctly and effectively.

