

**UNIVERSITY OF THE PHILIPPINES VISAYAS  
COLLEGE OF ARTS AND SCIENCES  
DIVISION OF PHYSICAL SCIENCES AND MATHEMATICS**

**CMSC 127 Database Systems  
2nd Semester AY 2021-2022**

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**ACTIVITY GUIDE  
(UNIT 1)**

***ACADEMIC INTEGRITY***

*As a student of the University of the Philippines, I pledge to act ethically and uphold the value of honor and excellence. I understand that suspected misconduct on given assignments/examinations will be reported to the appropriate office and if established, will result in disciplinary action in accordance with University rules, policies and procedures. I may work with others only to the extent allowed by the Instructor.*

**Lab 1: ENTITY RELATIONSHIP DIAGRAM EXERCISE**

**Instructions:**

Using DIA or any other free software of your choice to create an ERD, draw an ER diagram which indicates the entities and their attributes (if noted). Identify and label significant relationships between pairs of entities.

Create a Crow's Foot ERD for each of the following descriptions. (Note that the word "many" is meant to mean "more than one" in a database modelling environment.).

*Note. Include all your ERDs in one file.*

**Data Descriptions:**

a) Each of the MegaCo Corporation's divisions is composed of many departments. Each of the departments has many employees assigned to it, but each employee works for only one department. Each department is managed by one employee, and each of these managers can manage only one department at a time.

b) During some period of time, a customer can rent many videotapes from the BigVid store. Each of the BigVid's videotapes can be rented to many customers during that period of time.

- c) An airline can be assigned to fly many flights, but each flight is flown by only one airline.
- d) The KwikTite Corporation operates many factories. Each factory is located in a region. Each region can be "home" to many of KwikTite's factories. Each factory employs many employees, but each of these employees is employed by only one factory.
- e) An employee may have earned many degrees, and each degree may have been earned by many employees.

**Submission Instructions:**

Save your file as **LastnameFirstLetterOfFirstName\_Lab1.pdf**.

Please take note of the use of **Camel Case** for your filename. **Those who are not following instructions will have a 20% deduction on their Laboratory exercise.**

Upload your file in the UPV LMS (on or before March 7, 2022 11:59 PM).