INSTITUT TEKNOLOGI DEL PRAKTIKUM

Session Date	:	24 Oktober 2022
Courses	:	Database System
Week/Session	:	1/2 dan 1/2
Key Topics	:	ER Modeling dan ER Translation
Activity	:	Make Entity Relationship Modelling based on the given case study and transform it into relational model
Duration	:	180 Minutes
Delivery	:	Hardcopy (berisi diagram berisi ER Model dan Relational Model)
Deadline of Delivery	:	end of session
Place of Delivery	:	Teaching Assistant
Lecture	:	Verawaty Situmorang, S.Kom., M.T.I

Petunjuk

Analisis dan lakukan perancangan *conceptual* dan *logical* untuk setiap kasus di bawah ini. Silakan **setiap mahasiswa** :

1. menggambarkan ER Model

2. lalu melakukan translasi dari ER Model menjadi Relational Model untuk soal berikut:

Case 1

A customer can place an order for one or more products. Customers that have not placed any orders can be included in the customer database for purposes of marketingresearch. Products that have not been ordered can be part of the product database. Anorder has to be associated with at least one product but can be associated with many products.

Case 2
Each company operates four departments and each department belongs to onecompany
1. Each department in part(a) employs one or more employees, and eachemployee works for one department
2. Each of the employee in part (b) may or may not have one or moredependents and each dependent belongs to one employee
3. Each employee in part (c)may or may not have an employment history

Case 3

A computer institute registers various students for different courses. The courses are taught by faculty members at the institute. A student may register for one or more courses and a course may have one or more students. A course is taught by one faculty. However, a faculty may conduct multiple courses. The information to be stored about students includes the registration number, name,

address, phone, date-of- birth and date-of-joining. The course details to be stored include course_ID, course_name, duration and fees. Faculty details to be stored are faculty_id, name, address and phone number.