AACS3013

EXTRA TUTORIAL

ENTITY RELATIONSHIP AND DATA MODELS

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OBJECTIVES

To have some experienced create data models and Entity Relationship Diagram Model

Name :

Class :

Matric No :

PLEASE ANSWER ALL QUESTIONS

QUESTION 1 (13 MARKS)

DOCTOR (DocNum, Doc_FName, Doc_LName, Speciality, StartDate, PhoneNum)
PATIENT (PatientNum, FName, LName, Address, DOB, DocNum)
VISIT (VisitID, DateOfVisit, BillNum, DocNum, PatientNum)
PAYMENT (BillNum, BillDate, Amount)

The relational schema above shows the database design for Klinik Fattah.

Write SQL commands for the following queries:

a) List information of Doctor name Fazura (first name) and has been working for more than 5 years. (3 Marks)

b) Display the patients that had visited the clinic in 2017. (2 Marks)

c) List doctor's name (in capital letters) and their speciality in Surgery, Cardiology or Neurology. (2.5 Marks)

d) By using SUBSTR() function, display all patients that ends with *"lofa"* in their last name. (3 Marks)

e) Find number of days Doctor Amin (first name) has been working in the clinic. (2.5 Marks)

QUESTION 2 (14 MARKS)

Salam Hotel is one of the hotels for Malaysian that located in Canada. Its owner wants to have a database that is used to keep all the booking information from their customers. Due to increase in sales, it is difficult to monitor and manage the details in traditional ways. To make some improvement to the hotel booking management, you are hired to develop a database management system and you are required to design database according to owner requirements which are:

- Each booking consists of customers, staff, packages and bills.
- Staff information is recorded together with their supervisor and not all staff will supervise another staff.
- A customer can choose any package for their accommodation, such as premier deluxe, premier executive and executive suite with a different price.
- Each booking must be recorded together with the staff in charge.
- Bills will be issued each time a booking is made.
- Each customer may book many packages at a time.

Draw the entity relationship diagram (ERD) by using Crow's Foot notation that shows all entities, attributes, relationships, cardinalities, primary keys and foreign keys.

(14 Marks)