

Learning design database



**ASSIGN
BUSTER**

This is where databases come into the picture. Databases are convenient storage systems which can store large amounts of data and together with application programs such as interfaces they can aid in faster retrieval of data. An initiative was taken to design a complete database system for a hospital management such as Bangladesh Institute of Research and rehabilitation In Diabetes, Endocrine and Metabolic disorders (BIRDED) In Dacha so that Its Information can be stored, maintained, updated and retrieved conveniently and efficiently.

The exalting Information In BIRDED Is partly computerized Vela databases only In patients' admissions, doctors' appointments and medical tests and reports sections. A partly slow and tedious manual system still exists in BIRDED for example, in record of ambulances in service, assigning ward boys and nurses to rooms, the billing process and record of doctors' prescriptions etc. However, this paper outlines one complete database design for the entire BIRDED hospital in which data maintenance and retrieval are in perfect harmony and speedy.

But having all the necessary information stored in one database, it not only helps in orderly maintenance but very speedy retrieval of data. The work in this paper has been supervised by Rosins Survivors Khan or her student Seed Mambo Nor and his group as a thesis work in Year 4, semester 1, CASE, STATUS in Fall 2009. A. Entity Relationship Model (ERM) 1) ERR Diagram In the ERR diagram, we can view the entities- Patient, Doctor, Receptionist, Department, Medicine, Test, TO (Operation Theater), Room, Nurse, Ward_boy, Driver, Ambulance, Carriers, Accountant and Bill.

Among these entities, relationships exist which connect all the entities in the diagram. For example, Patient, Doctor and Receptionist are connected via the relationship Appointment. In other words, a receptionist will set up a doctor's appointment for a patient. Similarly, Doctor, Patient and Medicine are connected via the relationship Prescription. Here, a doctor may prescribe one or more medicine to a patient. In a similar way, other entities are connected via relationships in a meaningful way. Cardinality ratios [1] for the entities connected to a relationship are explained in the next section.)

Cardinalities Binary Relationship We can see a binary relationship in the ERR diagram. SINS : 0975-3397 2616 Figure 1. ERR diagram of BIRDED As can be seen in Figure 2, 1 Doctor can be from 1 or many Departments . 1

Department may have 1 or many Doctors . So it is a many to many relationship named Doctor from Department (in the diamond). Ternary Relationship As seen in Figure 3, 1 Receptionist can admit 1 Patient in 1 Room in a certain date and time. 1 Receptionist can admit in 1 Room 1 Patient in a certain date and time. In 1 Room, 1 Patient is admitted by 1 Receptionist in a certain date and time.

We can create relations easily by code and also manually (drag and drop method like MS. Access). We can easily retrieve various data based on our demands using SQL Queries. Sample data has been entered in the relational tables.