**Database Management Notes**

Data modelling is the use of the entity relationship diagram.

A foreign key should have a primary key and this is done to prevent orphan records.

For the data below: (Slide 47, Times) Chapter 8.2

**Data Integrity**

Data integrity is enforced by database constrains. Database constraints are declarative integrity rules of defining table structures. They include the following 7 constraint types:

1. Data type constraint  
   This defines the type of data, data length, and a few other attributes which are specifically associated with the type of data in a column.
2. Default constraint  
   This defines what value the column should use when no value has been supplied explicitly when inserting a record in the table.
3. Nullability constraint  
   This defines that if a column is NOT NULL or allow NULL values to be stored in it.
4. Primary key constraint   
   This is the unique identifier of the table. Each row must have a distinct value. The primary can be either sequentially incremented integer number of a natural selection of data that represents what is happening in the real world (e.g. Social Security Number) NULL values are not allowed in primary key values.

Term: record locking

= If two people are accessing the same record at the same time then it will stop one and only let them once the other person is done with it. No two people can access the same record at the same time.

**Database Security**

Data backup is the process of making a duplicate of the server data and storing it elsewhere to access at a later date in case something with the system goes wrong.

Obsolete data is data no longer needed/relevant.

**Database Integrity**

Whether a user is allowed to change the data or not. Data integrity ensures that the data remains unchanged and accurate. The different types of access rights are read and write, read only and write only.