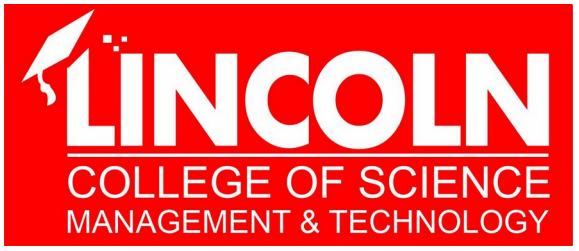

FACULTY OF INFORMATION TECHNOLOGY AND ENGINEERING

CSE 251

RELATIONAL DATABASE MANAGEMENT SYSTEM (RDBMS) I

WITH

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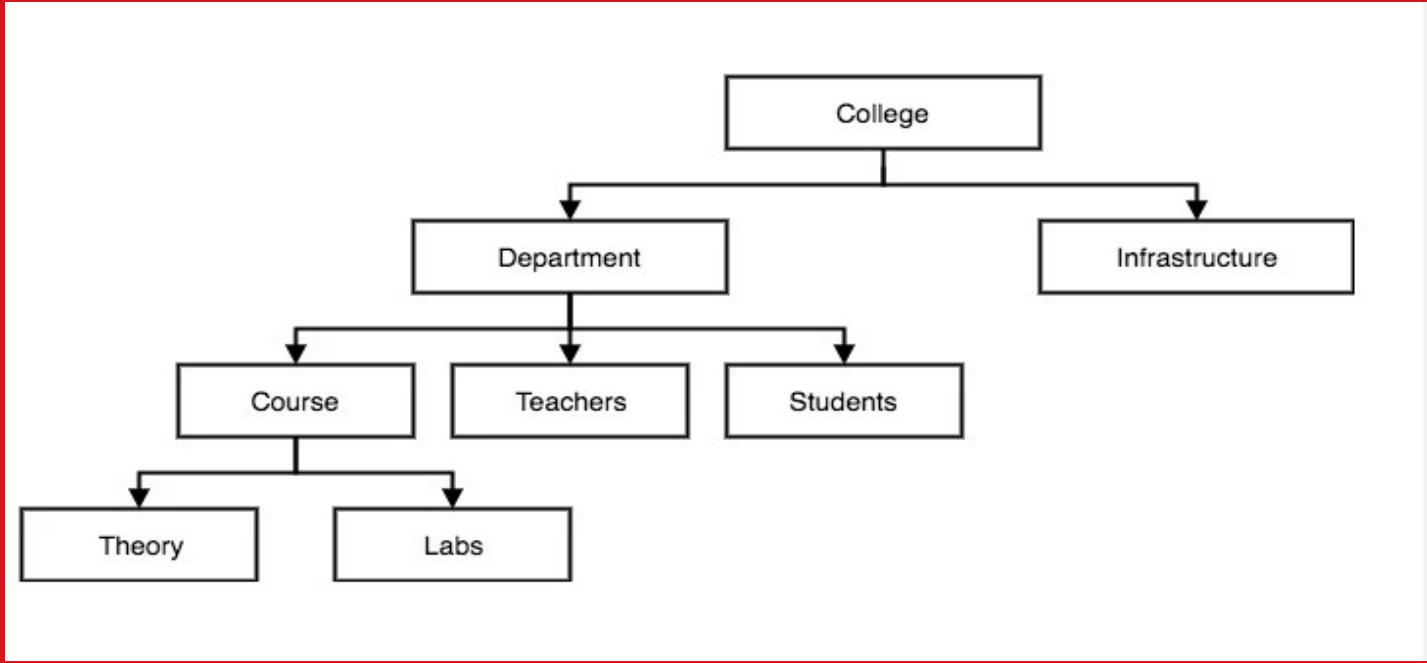
Database Models

A Database model defines the logical design and structure of a database and defines how data will be stored, accessed and updated in a database management system.

- Hierarchical Model
- Network Model
- Entity-relationship Model
- Relational Model

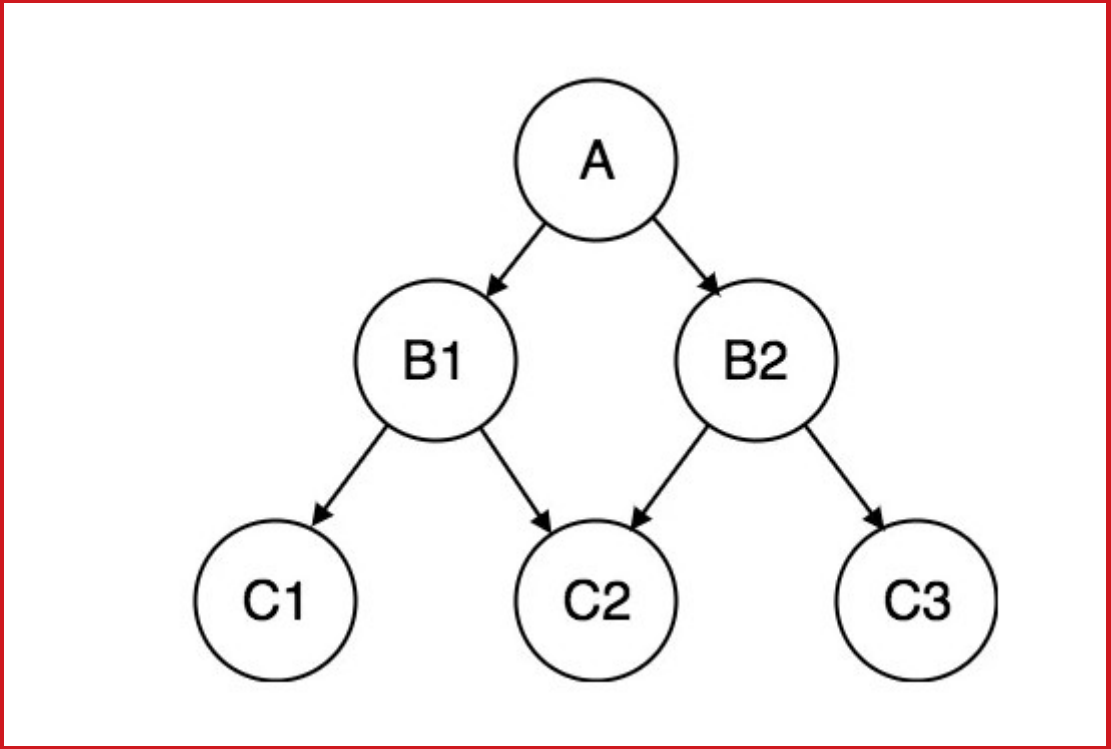
Hierarchical Model

This database model organizes data into a tree-like-structure, with a single root, to which all the other data is linked. The hierarchy starts from the Root data, and expands like a tree, adding child nodes to the parent nodes.



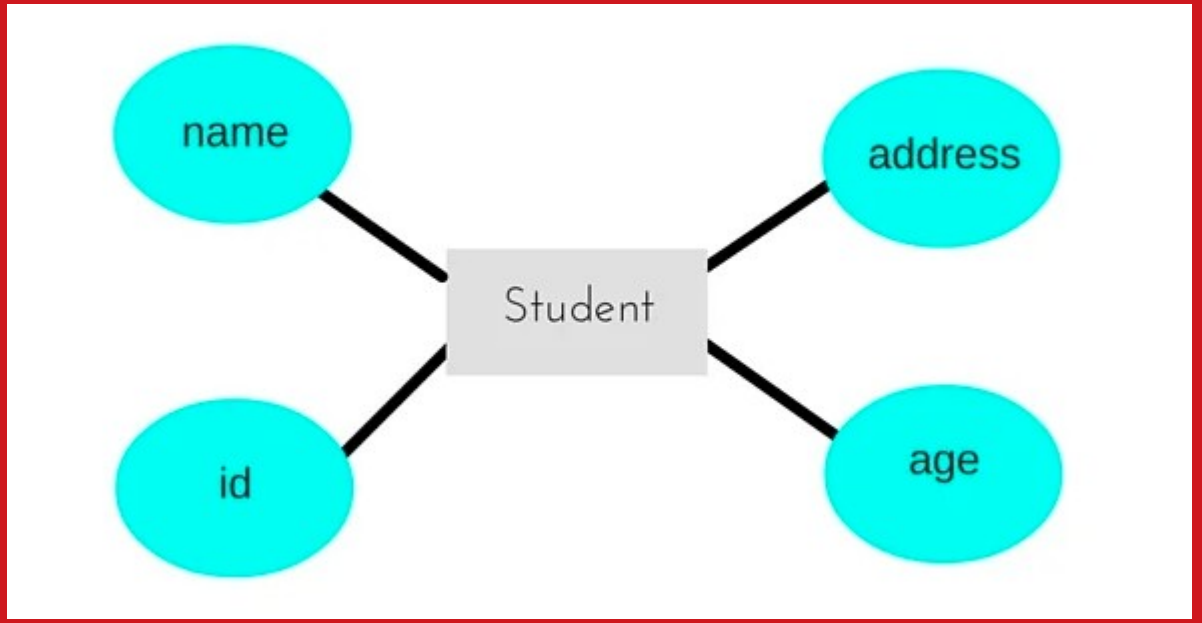
Network Model

This is an extension of the Hierarchical model. In this model data is organised more like a graph, and are allowed to have more than one parent node.



Entity-relationship Model

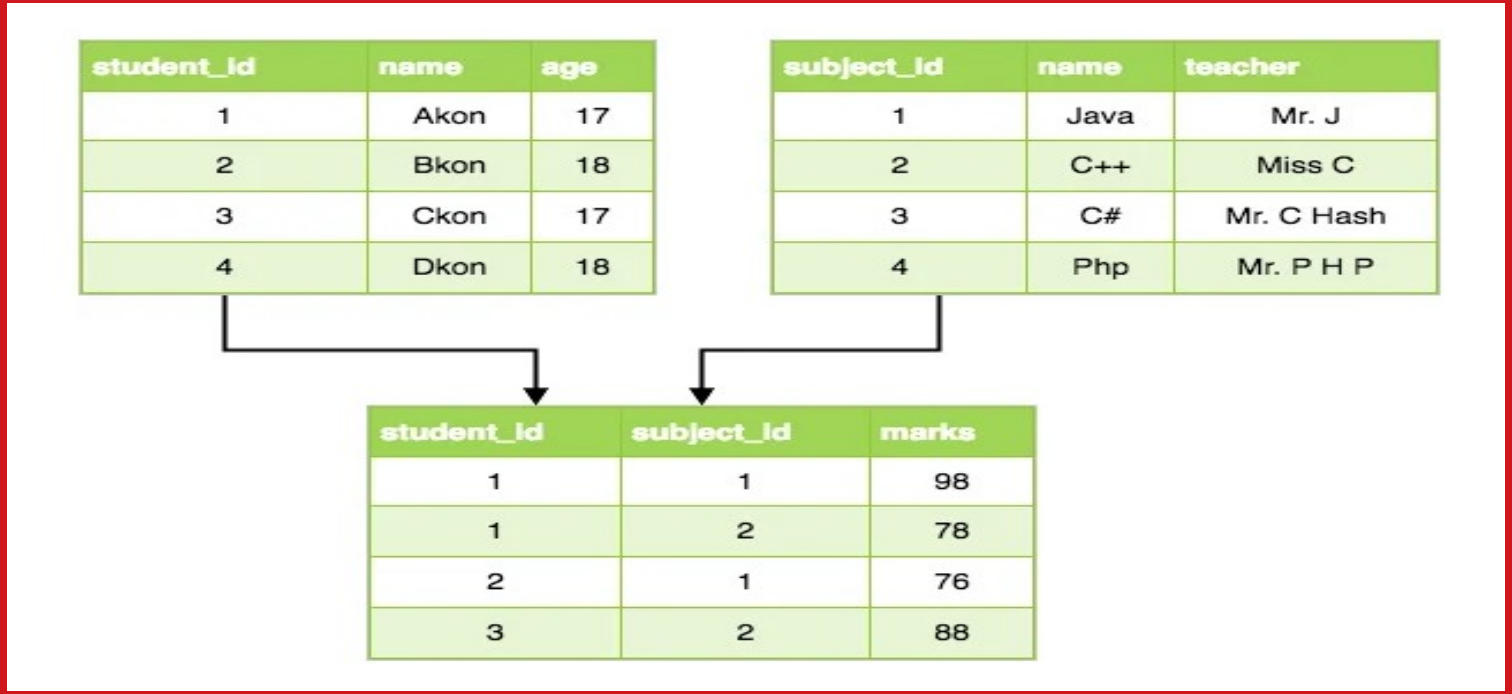
In this database model, relationships are created by dividing object of interest into entity and its characteristics into attributes.



Relational Model

In this model, data is organised in two-dimensional tables and the relationship is maintained by storing a common field.

This model was introduced by E.F Codd in 1970, and since then it has been the most widely used database model, infact, we can say the only database model used around the world.



student_id	name	age
1	Akon	17
2	Bkon	18
3	Ckon	17
4	Dkon	18

subject_id	name	teacher
1	Java	Mr. J
2	C++	Miss C
3	C#	Mr. C Hash
4	Php	Mr. P H P

student_id	subject_id	marks
1	1	98
1	2	78
2	1	76
3	2	88