

1.

a) The main phases in the Database Design.

Initial Phase – Characterize fully the data needs of the prospective database users.

Second Phase – Choosing a data model

- Applying the concepts of the chosen data model
- Translating these requirements into a conceptual schema of the database
- A fully developed conceptual schema indicates the functional requirements of the enterprise

Final Phase – Moving from an abstract data model to the implementation of the database

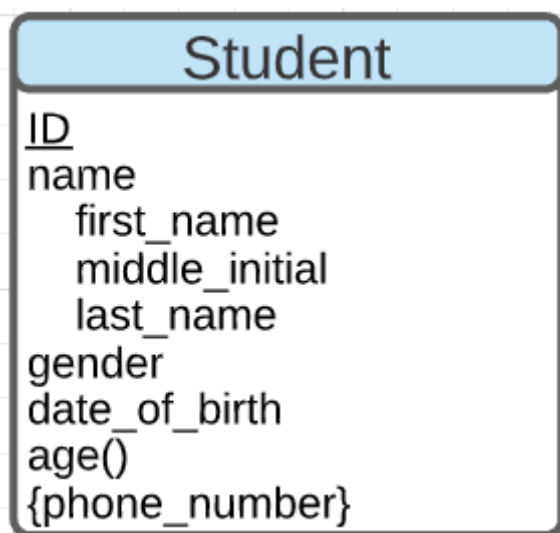
- Logical Design – Deciding on the database schema
- Physical Design – Deciding on the physical layout of the database

b) Entity Relation Model

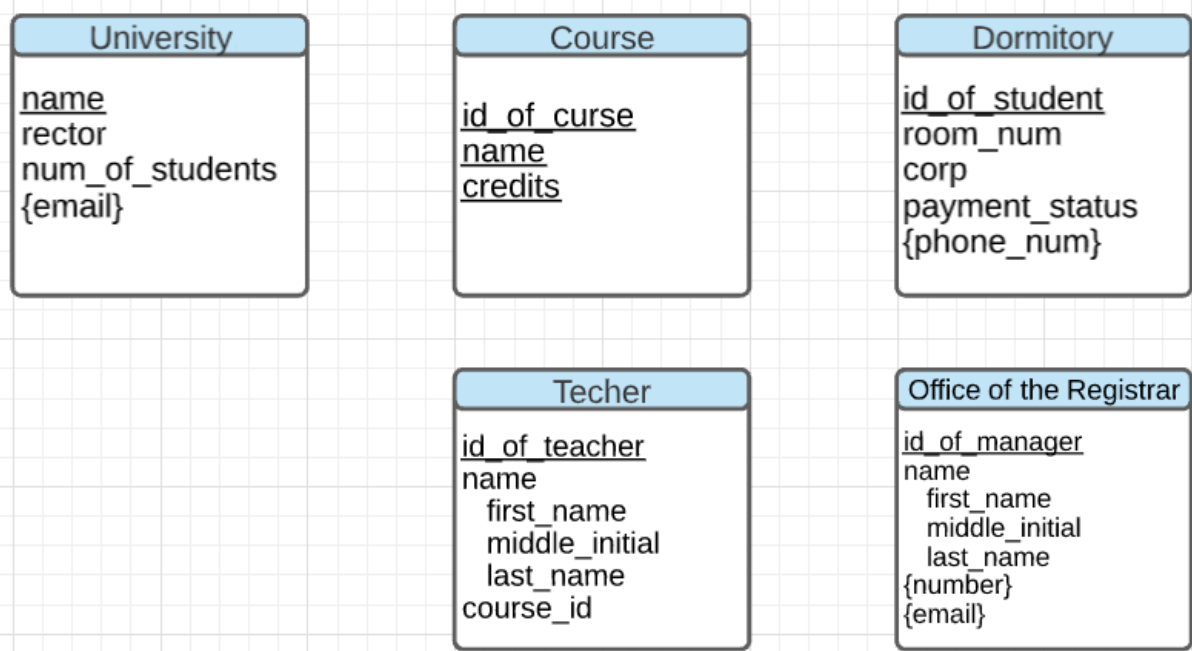
- Models an enterprise as a collection of **entities** and **relationships**
- Entity: a “thing” or “object” in the enterprise that is distinguishable from other objects
- Relationship: an association among several entities

2.

a)

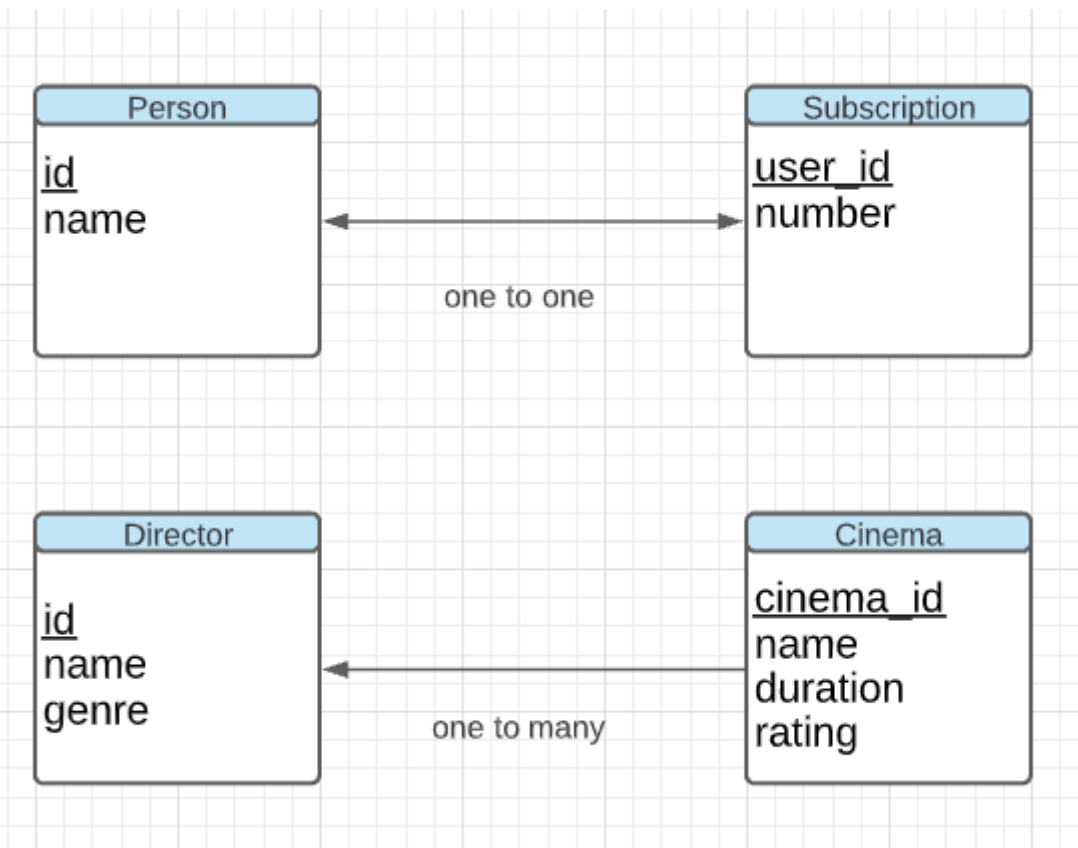


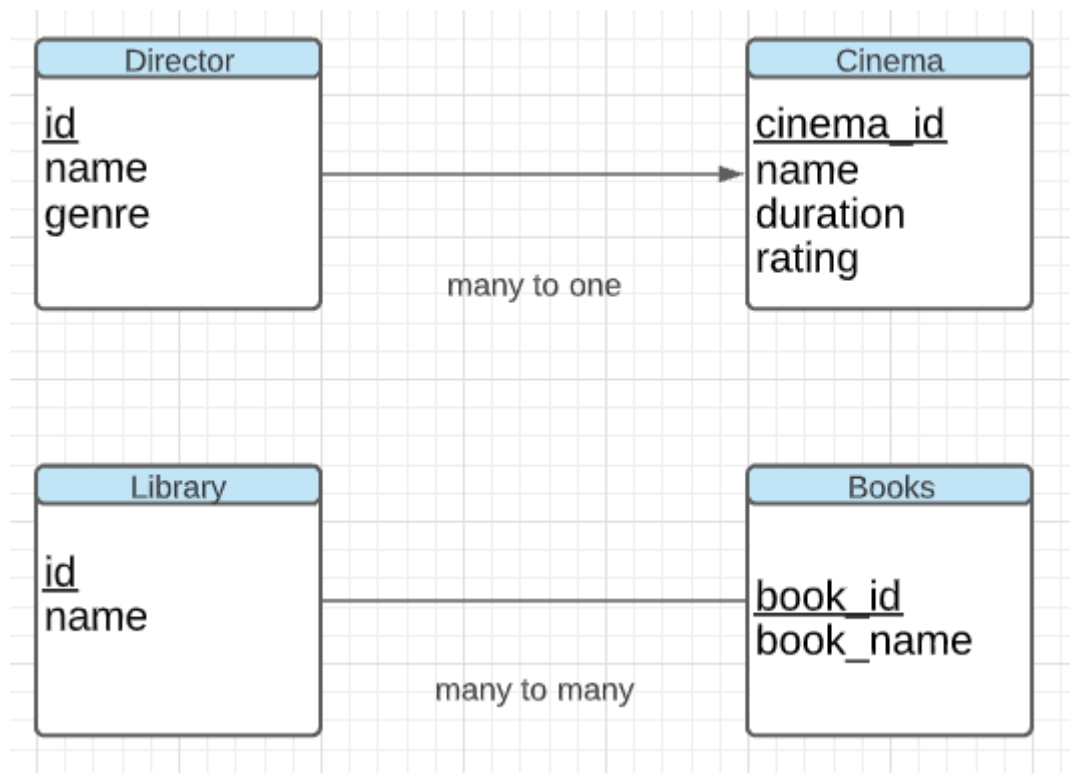
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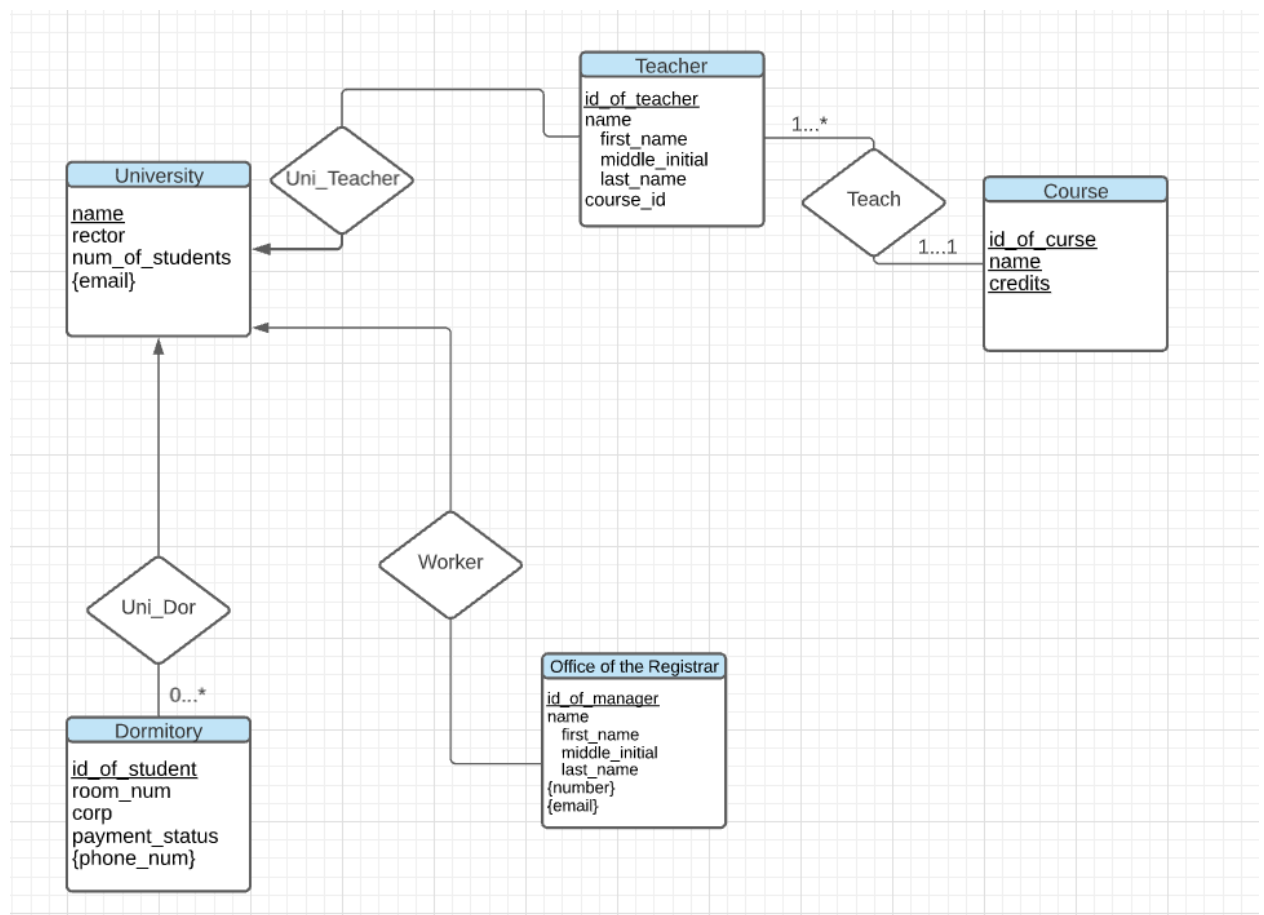
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