Laboratory work 4

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1.

a) What are the main phases in the database design? What is done on each development phase?

b) What is the entity-relationship (ER) data model?

a)

Initial phase - characterizes the data needs of potentiadatabase users.

Second phase - applies data model concepts to create a conceptual database schema.

Final Phase - transition from abstract data model to database application, more visual physical application.

b)

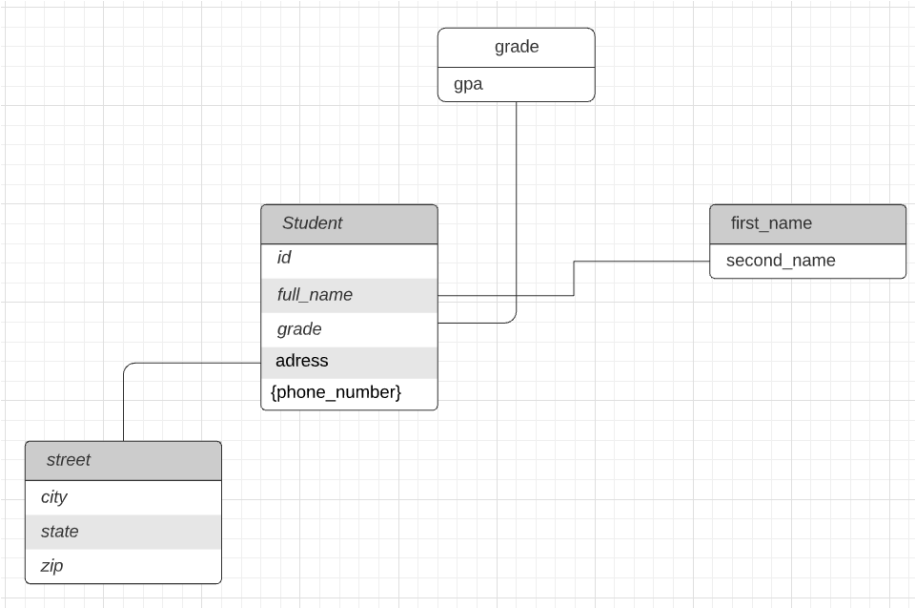
Entity Relationship Model (ER Modeling) is a graphical approach to database design, a data model that allows you to describe the conceptual schemes of the subject area.

2.

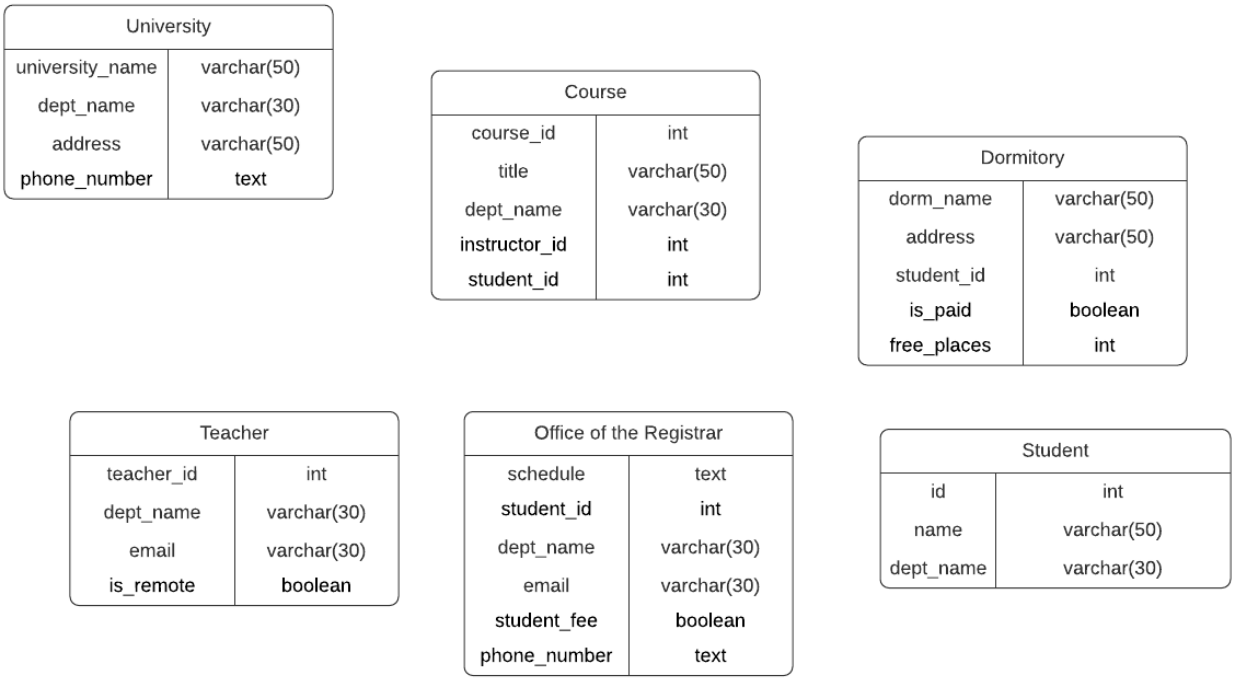
a) Create entity “Student” with at least 5 attributes (One for each type of attribute: simple, composite, derived, multivalued)

b) Create entities “University”, “Course”, “Dormitory”, “Teacher”, “Office of the Registrar” with at least 3 attributes each. (Entity types should be correct on data model)

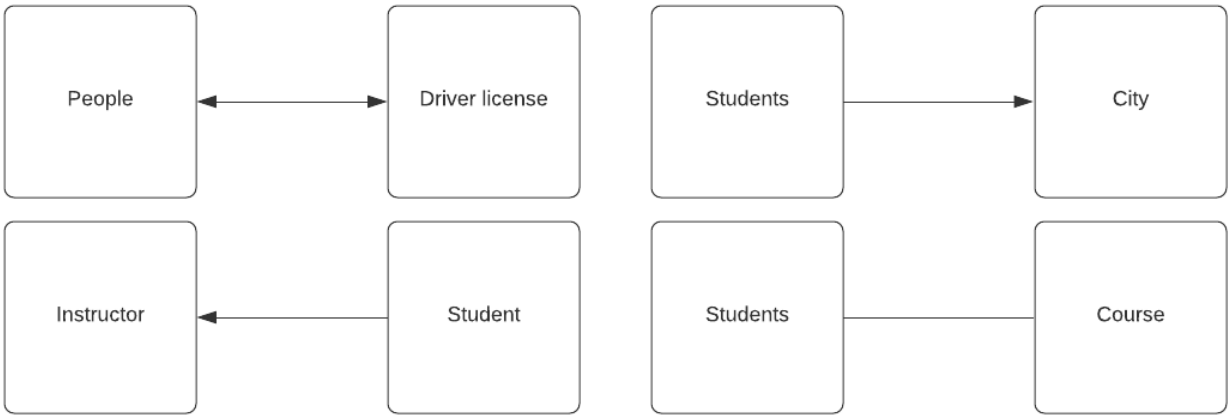
a)



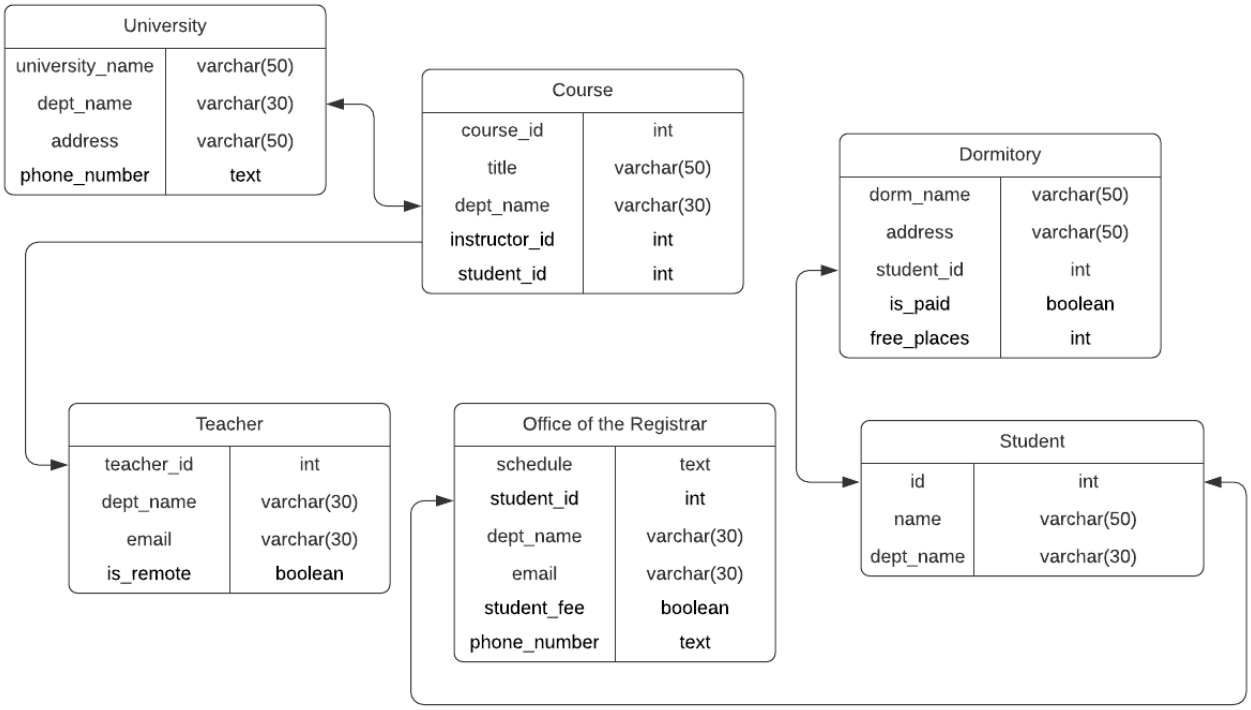
b)



3. Give examples for one-to-many, one-to-one, many-to-many, many-to-one relations. (Draw the examples as a scheme)



4. Create ER data model with relations using data from the second task.



5. Create ER data model for IT company. (**At least 5 entities and 8 relations**)

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