

LABORATORY WORK 4

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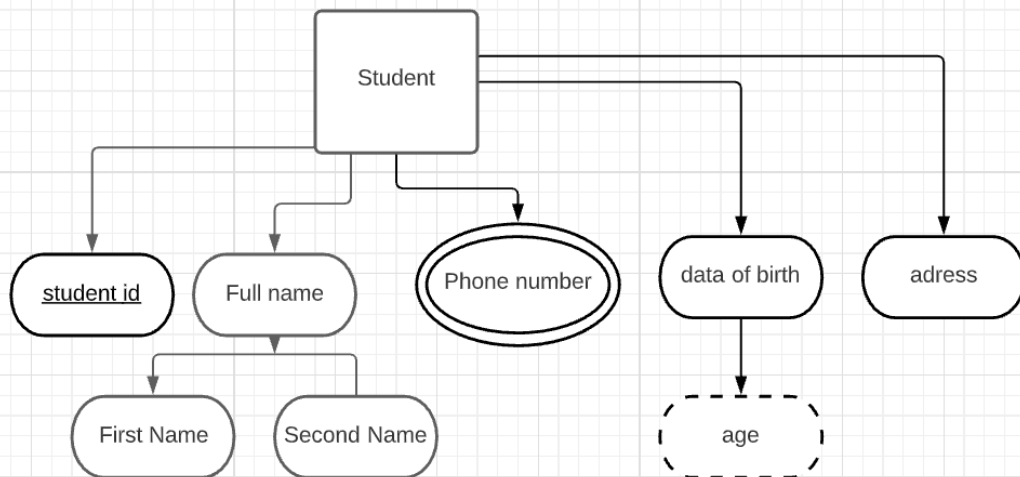
1.a) What are the main phases in the database design? What is done on each development phase?

Answer: ER and data models typically have up to three levels of detail: Conceptual data model(entities, Attributes ,connections), Logical data model(records, data items links between records), Physical data model(data grouping ,indices, access methods)

b) An ER model is a representation of a database in the form of visual graphical diagrams. An ER model visualizes a process that defines a certain subject area. An entity - relationship diagram is a diagram that graphically represents entities, attributes, and relationships.

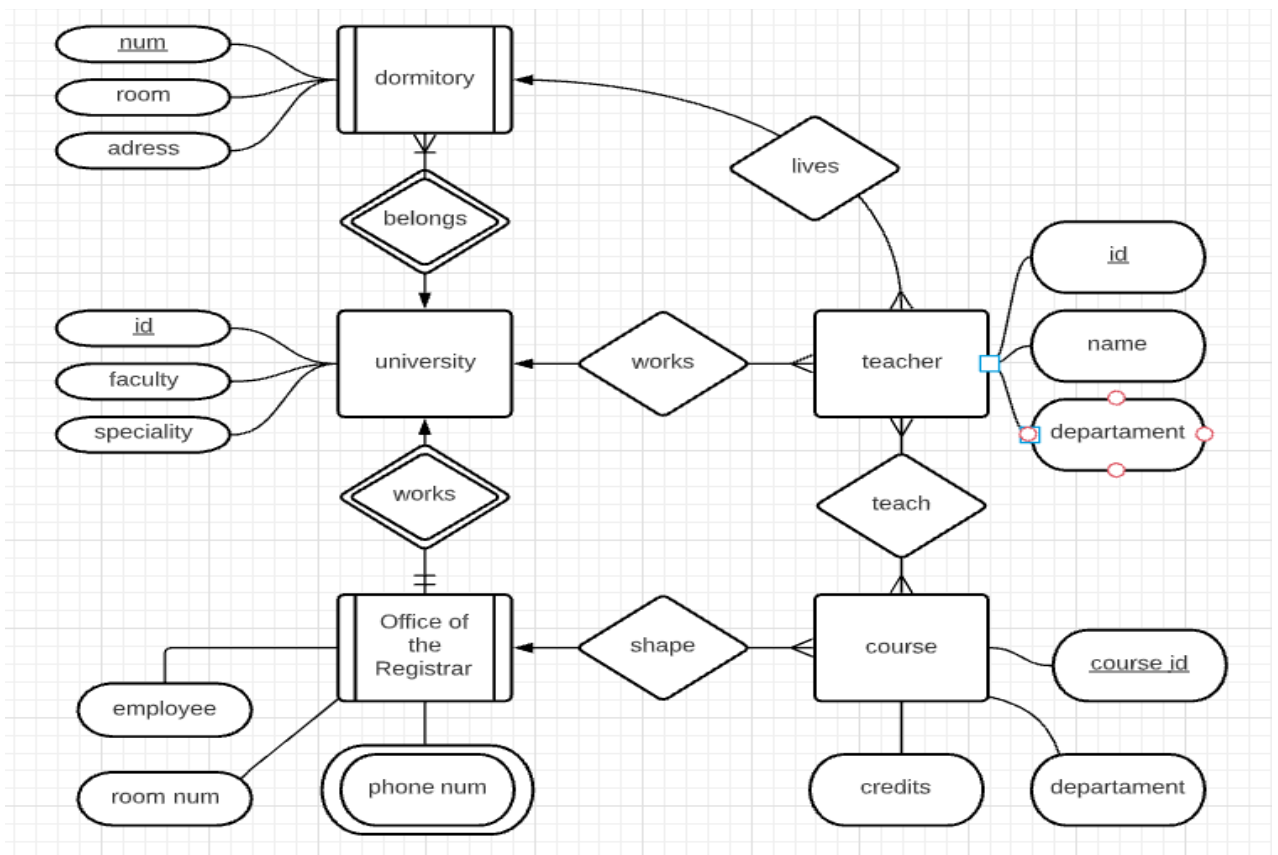
2. a) a) Create entity "Student" with at least 5 attributes (One for each type of attribute: simple, composite, derived, multivalued)

Answer:



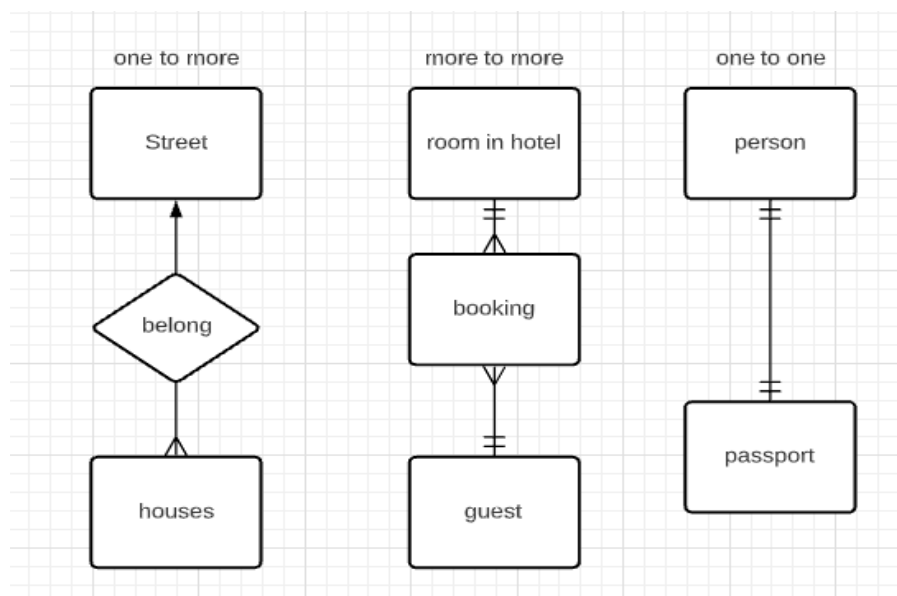
b) Create entities "University", "Course", "Dormitory", "Teacher", "Office of the Registrar" with at least 3 attributes each. (Entity types should be correct on datamodel)

Answer:



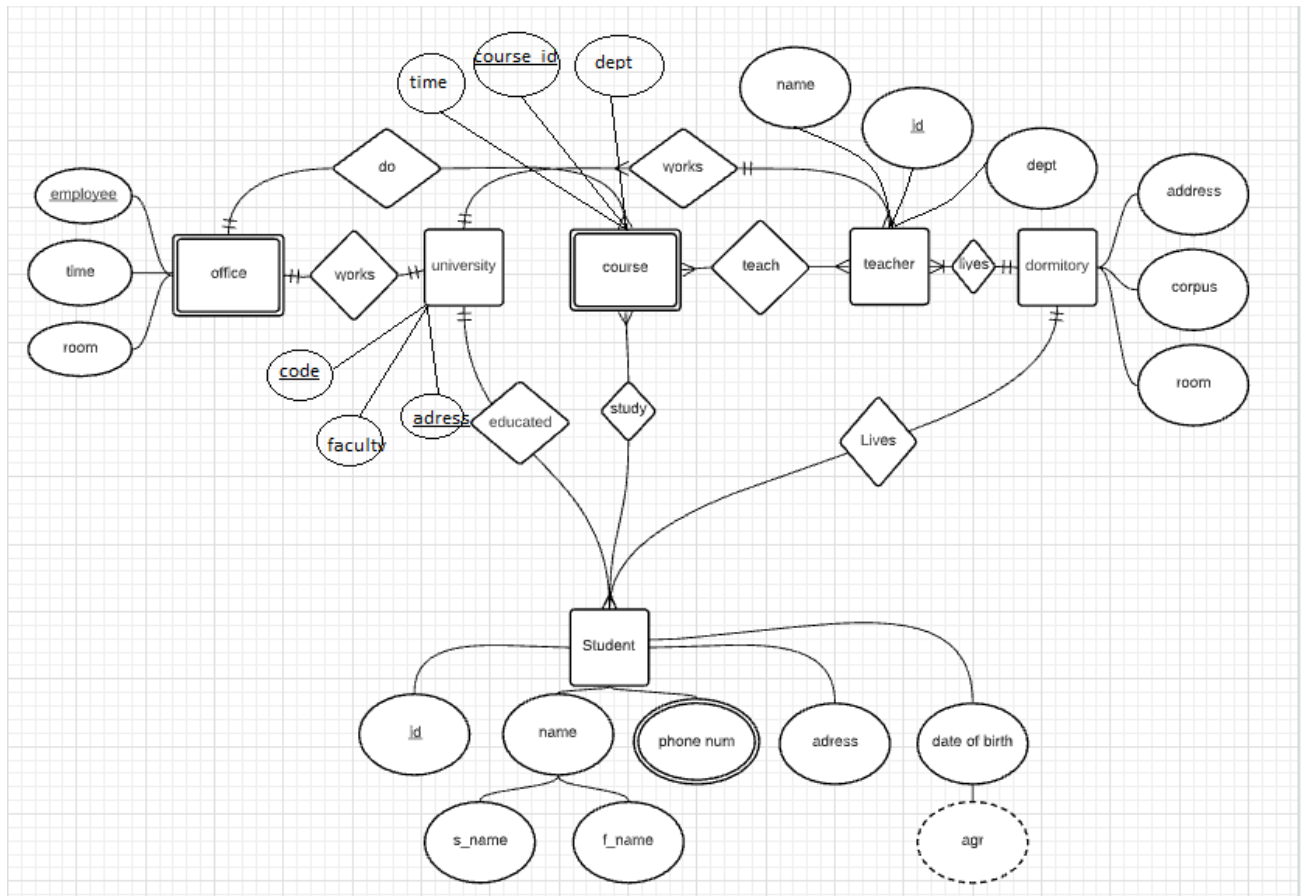
3. Give examples for one-to-many, one-to-one, many-to-many, many-to-one relations. (Draw the examples as a scheme)

Answer:



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

Answer:



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

