Laboratory work 4

1.

a)

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

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.

▪ Describe the kinds of operations (or transactions) that will be performed on the data.

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

• Logical Design – Deciding on the database schema.

▪ Database design requires that we find a "good" collection of relation schemas.

▪ Business decision – What attributes should we record in the database?

▪ Computer Science decision – What relation schemas should we have and how should the attributes be distributed among the various relation schemas?

• Physical Design – Deciding on the physical layout of the database

a)

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

Entity Relationship Model (ER Modeling) is a graphical approach to database design. It is a high-level data model that defines data elements and their relationship for a specified software system. An ER model is used to represent real-world objects.

2.a)

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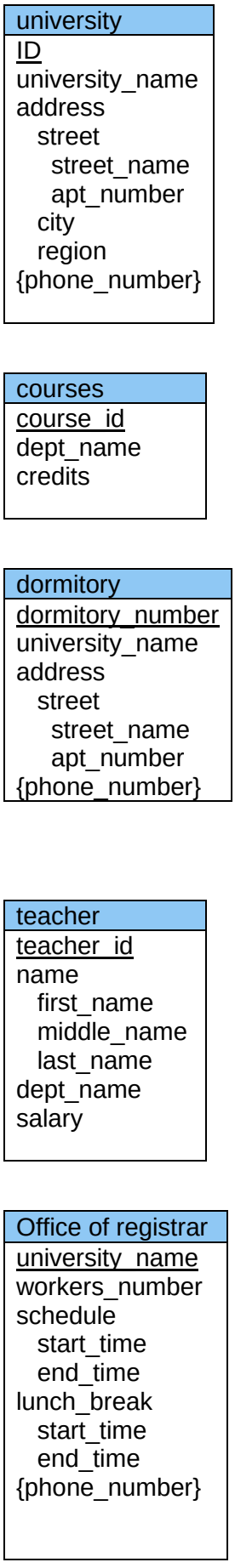
2b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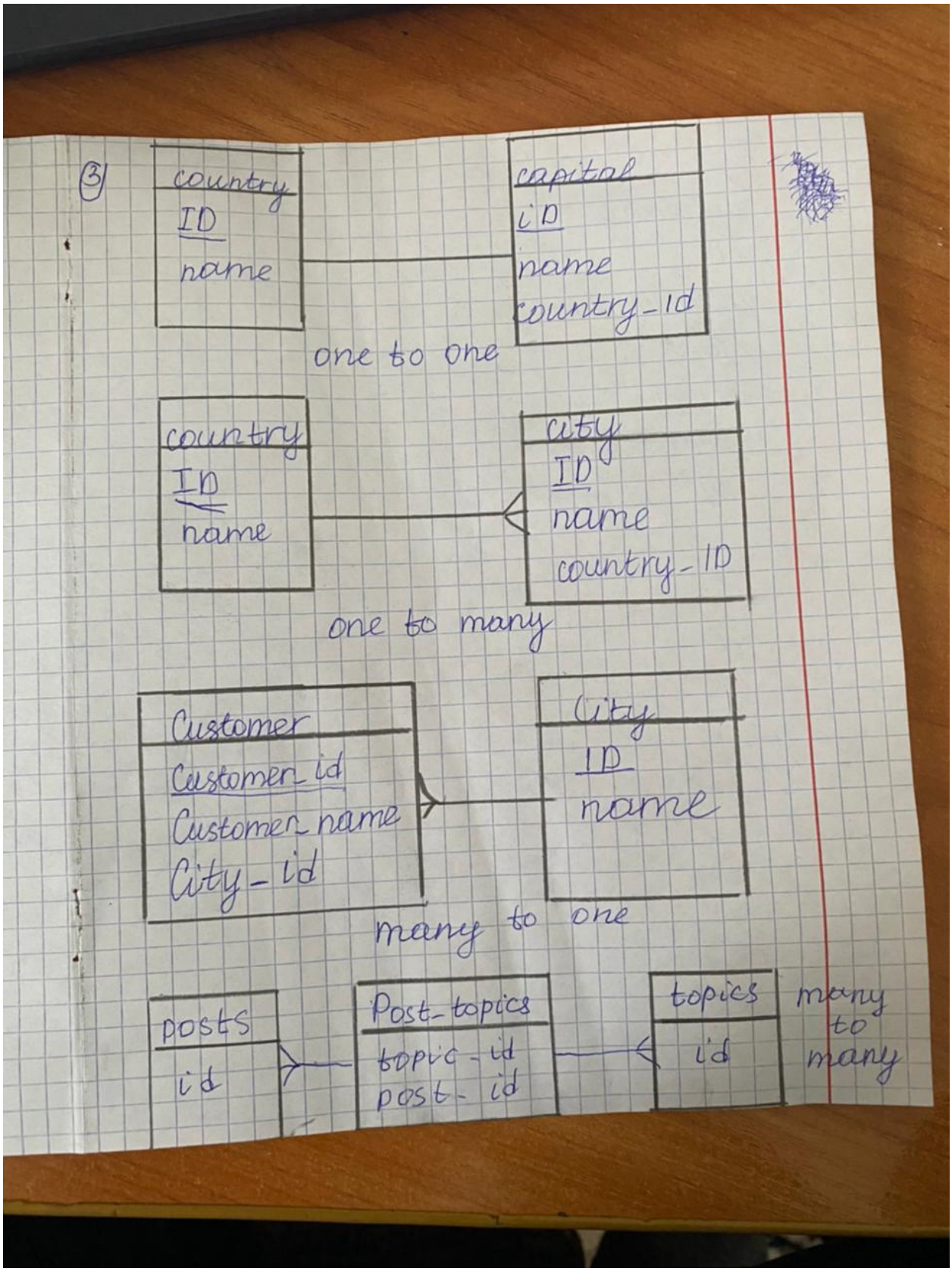
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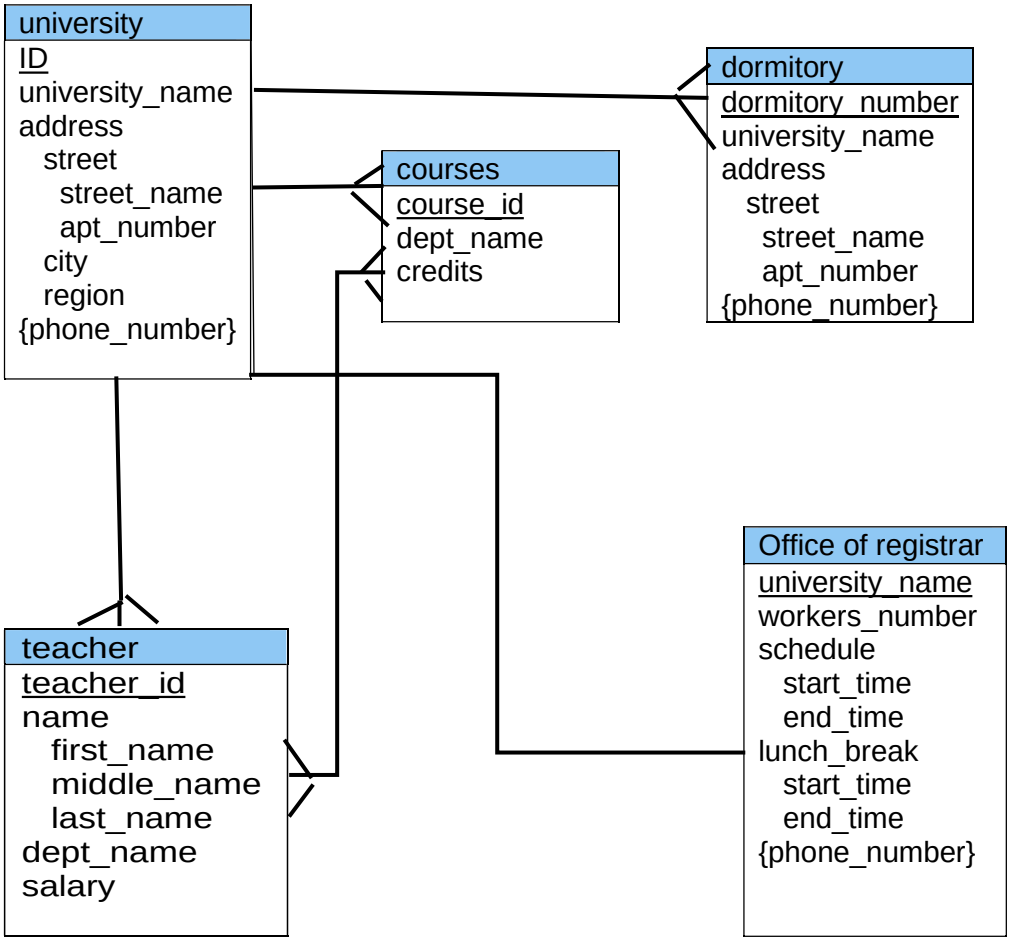
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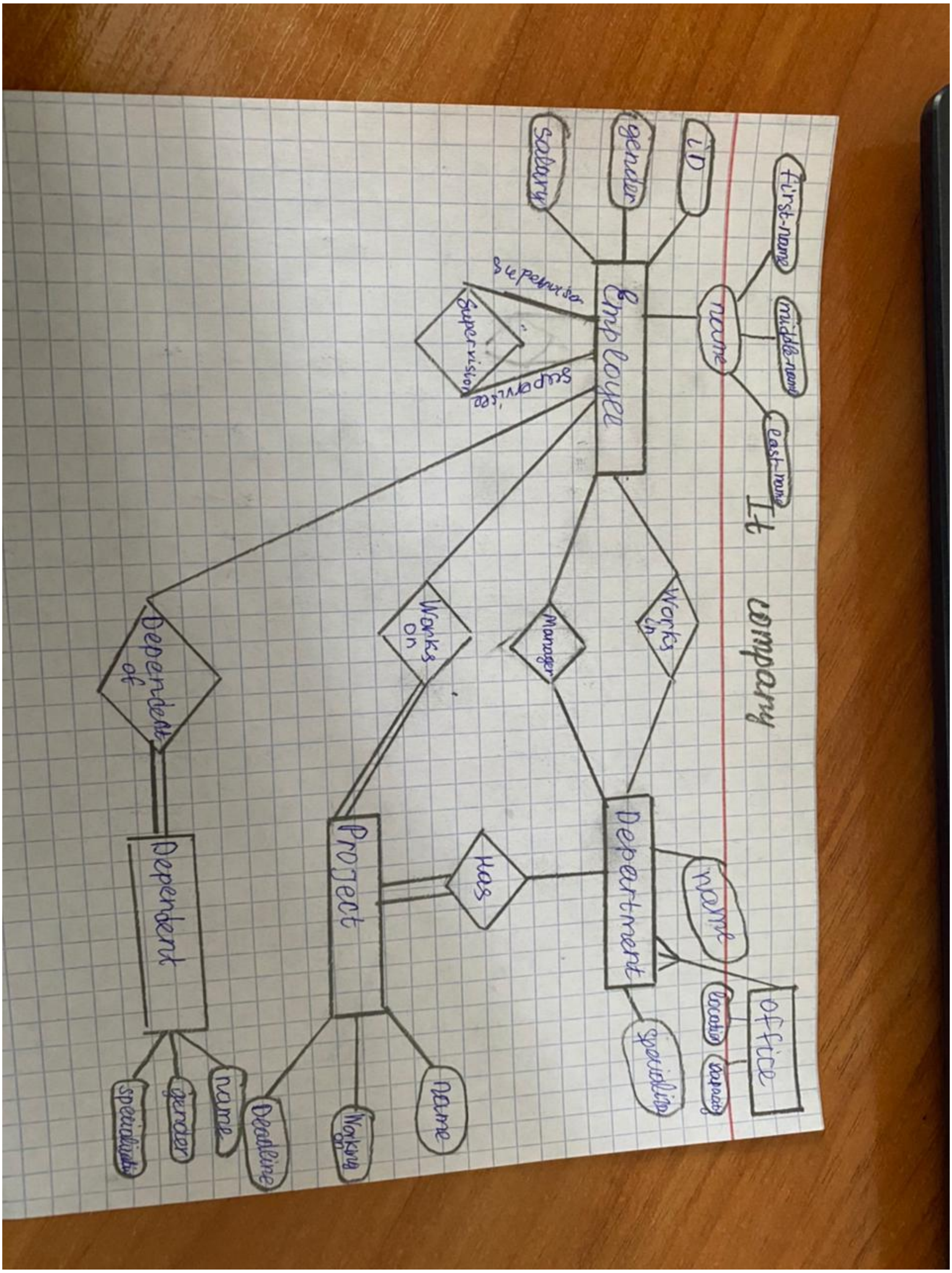
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