

Phase3

This phase of the project is another important one. The relational schemas will be determined along with all of the constraints that the DBMS must enforce on your database.

In this phase of the project you will convert your E-R diagram into a set of relational schemas according to the techniques we covered in class. Completion of this phase requires the submission of a set of relational schemas and the identification of all constraints that will be incorporated in the database.

Technique:

1. Using the methods outlined in the course notes, convert your ERD into a set of relational schemas. All entities, attributes, relationships, keys, mapping cardinalities, etc., that are identified in the ERD should be converted.
2. Using the set of tables developed in step 1, identify any functional dependencies that hold for the schemas that have been identified.
3. Verify that each table is in 2NF based on the set of functional dependencies that you have identified. Any tables that are not in 2NF, decompose into a set of 2NF tables. Show the decomposition in your documentation.
4. Verify that each table is in 3NF based on the set of functional dependencies that you have identified. Any tables that are not in 3NF, decompose into a set of 3NF tables. Show the decomposition in your documentation.
5. Identify any integrity constraints that will apply to the tables you have created in the four steps above.