

ITMG 320 FINAL PROJECT REQUIREMENTS

Conceptual Model & Logical Design

EERD and data dictionary entries

Create an ERD illustrating the entities/relationships needed to support your database design with accompanying data definitions. If the ERD is too large for one page, you can break it into multiple diagrams using entity clusters for each sub- diagram. Use any graphical style you prefer (Gliffy, Visio, etc.) but be consistent.

Make sure to follow all rules of ERD diagramming. Include all entities, label relationships if there are multiple relationships between 2 entities, include all attributes and constraints where necessary and identify primary and foreign keys.

Data definitions should be in the form of a table, defining briefly each attribute of each entity, for example:

<u>ENTITY</u>	<u>Attribute</u>	<u>Definition</u>
STUDENT	StudentID	XX-digit number uniquely identifying the student, assigned by USD, not based on SSN or other ID
STUDENT	FirstName	(required)
STUDENT	MI	Middle initial (optional)
STUDENT	LastName	(required)
STUDENT	AcctBalance	Outstanding balance owed to the university for tuition, fees, etc. New registrants start at \$0.00.
STUDENT	etc...	

1. Relationships between those entities are drawn with min/max cardinalities and constraints where required.
2. Data definitions for all **non-obvious** attributes (no need to define “first name” etc.)

Functional dependency diagrams and the database schema.

Normalize all tables, showing dependency diagrams for all tables in your that need to be normalized and create your database schema. Do not split your tables too far. Make certain that your database **schema** has all primary and foreign keys identified and include any dependency diagrams of your tables.

Constructing Tables and Creating Queries

Build the tables for your project database in Microsoft SQL Server (your team’s database) using your revised database schema. Create your tables and enough sample data so that you can test out some basic queries and make sure they work. Provide the SQL statements (CREATE TABLE and INSERT) that will be used to re-create the database from scratch (use Notepad, **.txt**). Then conduct/create at least nine queries (hint use sample output from your client description page) and add those SELECT statements to your Notepad file. Use any tables you wish to test your design.