CIS 8040
Quiz 2

Topics
(Not guaranteed to be all-inclusive)

ER-Relational Model

- Translation (transformation) of ER to Relational Model
  - Every entity becomes a separate relation
  - For relationships there are two options:
    - Foreign key: for 1:N relationships
    - Separate relation: with the key of the relation the concatenation of the two keys of the corresponding entities. Relationship attributes become non-key attributes.

SQL

- Understand what a query language is
  - Why are query languages important for data management?
  - Helps us build and retrieve useful information from the database
  - SQL – Structured Query Language, nonprocedural language, tell what to retrieve, not how to do so. Used for data administration, data manipulation and to query a database

- SQL – DDL (data definition language) and DML (data manipulation language)

  - Understand the Create Statement and its usefulness (create the tables)

  - Appreciate how to populate a database. Ensure referential integrity in the data.

- SQL – DML for Basic SQL queries
  - Be able to write single-table SQL queries
  - Basic form of command: Select – From – Where

  - Know how to insert data into a set of tables

  - Understand the requirements for specifying a data type for each attribute

  - See examples in lecture notes and text

Example:

Consider the following sets of relations. This is from the Chef specialty example.

Dish: (DishName, description, cuisine-type)

Chef: (Emp#, name, email, kitchen-where-trained, specialty)
Creates: (DishName, Emp#, expertise-level)

Answer the following query.

What are the names of the chefs who specialize in Italian cuisine?

```
Select name
From Chef
Where speciality =’Italian’
;
```

What would the output from this query look like?