IT360 12 week Exam Review Sheet

1. SQL CREATE, ALTER, DROP, INSERT, UPDATE, DELETE, SELECT

2. Transforming ER diagrams to Relational Model

   Sub-topics:
   a. Transform entities
      • Specify primary key
      • Specify candidate (alternate keys)
      • Specify properties for each column
         1. data type
         2. null/not null
         3. default values
         4. other constraints
   b. Transform relationships (foreign keys used here)
      • 1:1 relationships, 1:N relationships
         - identifying relationships
         - non-identifying relationships
      • N:M relationships
      • Supertype/subtype relationships
   c. Specify logic to enforce minimum cardinalities

3. Normalization

   Sub-topics:
   a. Purpose
   b. Insert/delete/update anomalies
   c. Functional dependencies
      • Definition of key based on functional dependencies
   d. Normal forms
      • First normal form
      • Boyce-Codd Normal Form
      • Decomposition into relations that are in Boyce-Codd Normal Form

4. PHP - general

   a. variables, constants, arrays (numerically indexed arrays and associative arrays)
   b. control statements (if, for, foreach, while, …)
   c. files
   d. functions and variables scope
   e. objects/classes, inheritance
5. PHP - Work with MySQL
   - Connect to a database
   - Query
   - process results
   - close connection

6. Session variables
   a. Start/continue session
   b. Work with session variables
   c. Close session