SYSTEMS DESIGN / CAPSTONE PROJECT
MIS 413

User Guide 2.0

SQL Naming Guidelines

There are various naming conventions that are all valid when creating tables, attributes, queries and other objects in a SQL database. However to help with merging your databases with those created by previous and future MIS 413 classes, please follow these basic guidelines:

The first time you use SQL, you may need to change one of the default options to permit you to update tables. If you get an error when you try to modify a table design, click: TOOLS, OPTIONS, DESIGNERS, and UNCHECK the PREVENT CHANGES option. You may need to repeat this as you move from the classroom machine to a lab machine as it builds a unique profile on the machine for you, but not on the SQL database.

1. Table names should be clear at what they support as in:
   person, job, employer, invoice, etc.

2. Do not use SPACES in table or field names, prefer you use no underscores, but use camel case if the table is two words as in: cenMentor, bwSpeaker, mbaSpeaker.

3. Tables that support drop down boxes and rarely change should have ***valid*** as their beginning naming standard as in: validState, validHour, validPaymentType, validMajor.

4. Field naming should be clear and have no spaces. If the field is the primary key, then name the field as the tablenameID as in personID, employerID

5. If you know you are going to have foreign keys between tables, be consistent in your naming between tables (will help in ASP later for sure), for example: personID should be personID in all tables that will link the tables together based on the personID.

6. **Avoid the following field names:** ***password, description, user, event, system, datetime, date, time;*** as these are reserved words in SQL and will cause you problems later. If when coding in SQL these field names appear in blue, you will know they are a reserved word and recommend you go back and rename the field.

7. Select the appropriate field types, here are recommended field types:
   a. Avoid using CHAR unless you want to specific an exact size for the column, if the size of the entry could vary, then use varchar(##) or nvarchar(##)
   b. Primary Keys should generally be set to an Integer and generally you set the IDENTITY property to TRUE to auto generate
   c. Avoid the ***money*** and ***real*** field types (as ASP has difficulty with them), instead use numeric and set the number of decimal places as in numeric(18,2)
   d. Yes/No or Boolean fields should be set as a BIT

   e. Avoid the Image field type as we generally do not want to upload the image (with all its bits) into the database; rather you generally will upload the image file (jpg/gif etc.) to a folder and set a varchar(##) field that has the file name of the image

8. Set a primary key (or keys) for all tables, if the primary key will be auto generated, set the **IDENTITY** property to YES

9. Check to see if you should set a **default value** to a field, many times it is wise to set yes/no fields to 0 (false) or 1, numeric fields to 0 etc. to avoid NULLs when you will calculate items. To set a default date use: getdate()

10. Use the **Data Diagrams** option in the database to establish relationships between tables.