

## Starting with Access

Use Access Help to find “*Database design basics*”. Use this to find definitions for these database terms: use your own words for the definition:

Table

Field:

Record:

Primary Key

A database is a collection of tables. We will be building an extensive database that tracks students and the courses that they take. We will do this piece-by-piece, table-by-table.

Create a new blank database – name it ***lastnameDB*** and save it somewhere that you have access to (USB drive, fushare, studentbackup folder, etc)

Please note: Databases are saved differently from other applications: The data is saved as soon as it is typed in; changes to table structure and queries are saved when they are closed. So, if you close everything – they will be saved too.

Access starts in a default table – and we need to create the *schema* (table design) for it. Do this by changing from the default view (***Datasheet View***) to the ***Design View***. See if you can figure out how to do this. (Ribbon – Home - ...) Datasheet view shows the data best, while Design view show the table design best.

- When asked, name this first table ***CoursesAvailable***
- We now need to create the attributes (fields) of the table and assign a data type to each.

USE EXACT NAMES AND DATA TYPES

Table Name: CoursesAvailable

Fields:	ID	AutoNumber*	<i>This is the Primary Key field</i>
	CourseID	Text	
	Instructor	Text	
	Room	Text	
	Time	Date/Time	

\*Note: ***Autonumber*** is a data type that automatically enters the next sequential number into the field – this is useful to use as a primary key value since each record automatically gets a unique value.

- Close the database when you have these fields properly setup.

**Import from XML file into this database – “Append Data to Existing Table(s)”**

Use the External Data tab on the ribbon to select **Import XML File**. When asked, find the file: **CoursesAvailable.xml**; then select “*Append data to Existing Table*”; then click next; You are done - click Close

Open (double-click) the *CoursesAvailable* table: You should have 16 courses available.

**Create a new table structure AND data from an XML file**

Use **Import XML File** to select the **Students.xml** file. Proceed as before, but select the import option to get “*Structure AND Data*”

Confirm that your data was imported properly (4 students w/ data)

**Create your own table (Read this whole section before beginning)**

Next, make a database table that will “link” a student with a course that they have taken and what grade they made.

- Call this table ***Course Work***
- Each instance in this table will have one student taking one course with one grade. Since none of these is unique, we will also need a field to serve as a unique primary key field.
- Since these fields are used to build relationships with other tables, use the same data type as in the other fields

Add one record: Tom Dooley takes CSC 101-02 Fall 08 and makes an ‘A’

Now STOP and show this table to me (or the lab aid). When you have it right – and understand it – you’ll get the second part of the lab.

**Caution: Thinking Required**