

## Microsoft Access Exercise 4

### Create a New Database

1. Create a New database and name it *Schedules*.
2. Create a new table named *tblStudents* with the following fields:


Field Name	Data Type
StudentID	AutoNumber (Primary Key)
FirstName	Text
LastName	Text
Address	Text
City	Text
State	Text
Zip	Text (input mask)
PhoneNumber	Text (input mask)

3. Create a new table named *tblSchedules* with the following fields:

Field Name	Data Type
ScheduleID	AutoNumber (Primary Key)
StudentID	Number
Period	Text
ClassName	Text
Day/Time	Text
Teacher	Text
Room Number	Text

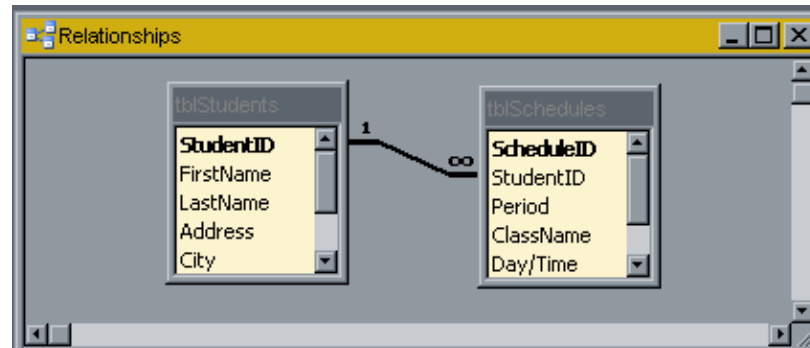
### Relationships

When you create relationships between tables, you associate (link) a field in one table with an equivalent field in another. Then the two tables can be used in Queries, forms and reports together. To create a relationship between two tables, the same field (or equivalent) must appear in both tables. It is desirable to use the same field name (primary key) in both tables.

1. Open the *Schedules* database.
2. Click on the *Relationships* icon on the Standard toolbar. 
3. You should see the *Show Tables* window. If not, right-click and *show tables*.
4. Add the *tblStudents* and *tblSchedules* tables to the window.
5. Close the *Show Tables* window.
6. Create the relationship.
  - a. Click and hold on the *StudentID* in *tblStudents* and drag it on top of the *StudentID* in *tblSchedules*. *Edit Relationships* window appears.
  - b. Check *Enforce Referential Integrity*, *Cascade Update Related Fields*, and *Cascade Delete Related Fields*.
    - **Referential Integrity** – A property of a relationship between two tables. When Referential Integrity is on, the child cannot contain a foreign key value that does not have a corresponding value in the primary key of the parent table. Both tables must have the same information.
    - **Cascade Update** – When the primary key field is updated in a relationship, the corresponding foreign key value(s) in the child table's related records automatically updates.

- **Cascade Delete** – When a record in a parent table is deleted, Access deletes all the related records from the child table where the value from the primary key matches the value in the foreign key.

\*\*\*Relationship table should look like this. Layout will vary.



7. Close and save the Relationship table.

## Concatenation

Means to connect or link in a series or chain. You can combine two or more fields together or perform some calculation and return a value. Fields are links together with an ampersand (&). You can add any other information in a String. Concatenation can be performed in a Query, Form, or Report. For example, if you wanted to put your last name and first name together you would enter *NewFieldName: LastName & ", " & FirstName* to get Smith, John.

1. Create a new Query named *qryStudents* based on *tblStudents*.
2. Add all the information from the table to the Query.
3. At the end of the Query in a blank field type:  
*Name: LastName & ", " & FirstName*
4. Click and drag the new field before *FirstName* at the front of the list.
5. Uncheck the show check boxes for *FirstName* and *LastName*.
6. Save and Open the Query in Datasheet view.

## Adding Records

1. Open the *tblStudents* table. Enter the following names:

Customer ID	First Name	Last Name	Address	City	State	Postal Code	PhoneNumber
1	Jim	Smith	100 Elk Drive	Burleson	Texas	76028	(817) 447-5700
2	Jill	Jones	200 Renfro	Burleson	Texas	76028	(817) 426-1234
(AutoNumber)							

2. Click the + to the left of the name. You can see the *tblSchedule* for each student. This is known as a subdatasheet.

Customer ID	First Name	Last Name	Address	City	State	Postal Code	PhoneNumber												
1	Jim	Smith	100 Elk Drive	Burleson	Texas	76028	(817) 447-5700												
<table border="1"> <thead> <tr> <th>ScheduleID</th> <th>Period</th> <th>Class Name</th> <th>Day/Time</th> <th>Teacher</th> <th>Room Number</th> </tr> </thead> <tbody> <tr> <td>(AutoNumber)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								ScheduleID	Period	Class Name	Day/Time	Teacher	Room Number	(AutoNumber)					
ScheduleID	Period	Class Name	Day/Time	Teacher	Room Number														
(AutoNumber)																			
2	Jill	Jones	200 Renfro	Burleson	Texas	76028	(817) 426-1234												
(AutoNumber)																			

3. Enter the following schedule information into the subdatasheet for Jim Smith:

ScheduleID	Period	Class Name	Day/Time	Teacher	Room Number
2	1	BCIS	"A" Day 8:30:10:00	Mr. Stephenson	115

4. Close the *tblStudents* table and open the *tblSchedule* table. The new information you just entered is in the table. Where is the student's name? It just references the *StudentID*.
5. Go to Design view and click on the *StudentID*.
6. Click on the *Lookup* tab in the properties.
7. Change the Display Control to *Combo Box*.
8. Add this command to the Row Source:

```
SELECT DISTINCTROW tblStudents.StudentID, LastName & ", " & FirstName
AS StudentName FROM tblStudents ORDER BY tblStudents.LastName & ", " &
tblStudents.FirstName;
```

SELECT – select all field for a specific record.

DISTINCTROW – don't duplicate the selected information. For example, if there were selecting periods and there were five 2<sup>nd</sup> periods, then 2<sup>nd</sup> would be displayed only once.

tblStudents.StudentID – information in first column

.LastName & ", " & FirstName AS StudentName FROM tblStudents – Concatenate (add together) the LastName and Firstname information in second column.

ORDER BY tblStudents.LastName & ", " & tblStudents.FirstName; - alphabetize the information.

9. Change the Column Count to **2** (because we created two columns in the above statement) and the Column Widths to **0";2"** (hide the first column and display the second).
10. Save the table and open in Datasheet. You can now see and change the student's name.
11. Add a new record with the following information:

ScheduleID	StudentID	Period	Class Name	Day/Time	Teacher	Room Number
3	Jones, Jill	1	BCIS	"B" Day 8:30-10:00	Mr. Stephenson	115
*	(AutoNumber)					


12. Close the table and open the *tblStudents* table. Click on the + for Jill Jones. The new information is there.

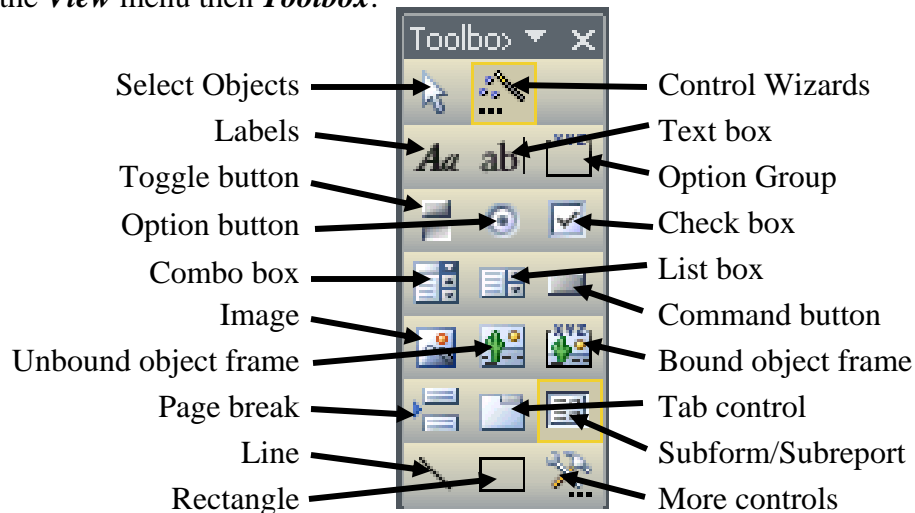
## Create a New Form and SubForm

1. Create Form by using Wizard.
2. Add all the fields from *qryStudents* and **Period, ClassName, Day/Time, Teacher, and RoomNumber** from *tblSchedules*. Click Next.
3. **View Data with Subforms** by *qryStudents*. Click *Next*.
4. Use Datasheet view. Click *Next*.
5. Select the Industrial Style. Click *Next*.
6. Form name: *frmStudentSchedules*.
7. Subform name: *frmStudentSchedulesSubform*. Click *Finished*.
8. Adjust design layout as needed.

## Adding Controls

Controls are buttons added to a query, form, or report that allow you to add functionality. For example, you can add a button to automatically print the selected record.

1. Open the *frmStudentSchedules* in design view.
2. Open the Toolbox by clicking on the **Toolbox** icon  on the standard toolbar or click on the **View** menu then **Toolbox**.



3. Adjust the **Details** section so you have room to add a button below the schedule subform.
4. Be sure the **Control Wizards** icon is highlighted and then click on the **Command Button**.
5. On the form click where you want to place the command button. The **Command Button Wizard** will appear.
6. Select **Record Operations** from the Categories window and **Print Record** from the Actions window. Click **Next**.
7. Choose the **Text** option button and leave the wording as Print Record. Click **Next**.
8. Name the button *cmdPrintRecord*. Click **Finish**.
9. Save the form and open it in **Form View**.
10. Add a new record and enter your personal information. Add your complete schedule, including advisory, to the form.
11. Adjust the form so your entire schedule will be displayed at once.
12. Save and print your form.

Student Schedules Form

Student ID:  Address: 200 Renfro

Name: Jones, Jill City: Burleson

PhoneNumber: (817) 426-1234 State: Texas

Postal Code: 76028

**Class Schedule:**

Period	Class Name	Day/Time	Teacher	Room Number
0	Advisory	Advisory	Teacher	107
1	BCIS	"A" Day 8:30-10:00	Mr. Stephenson	115
2	Math	"A" Day 10:06-11:42	Ms. Peckham	231
3	English	"A" Day 11:48-1:18	Teacher	101
4	Science	"A" Day 2:00-3:30	Teacher	102
5	Social Studies	"B" Day 8:30-10:00	Teacher	103
6	Student Aide	"B" 10:06-11:42	Teacher	104
7	Athletics	"B" 11:48-1:18	Teacher	105
8	Band	"B" 2:00-3:30	Teacher	106

\*\*\*This is an example of your printout.

Print Record

Record: 1 of 2