ITC100 Graded Database Project Using MS Access

Problem:

The Creative Cooking School offers various courses to students and wants to better understand the needs of its students so that it can be more flexible in its course offerings. Currently the school keeps records in a notebook regarding student enrollment and course offerings. You have been hired to create an Access 2007 database, including two tables, which are joined, five queries, and two reports. These will be used to help the school better manage its course offerings and enrollment.

Getting Started

You need to start Access 2007 and create a database called The Creative Cooking School. Save this database to your storage medium as an Access 2007 database.

The Next Step--Creating the Two Required Tables

Now that you have created your database you need to create two tables that contain the information given to you by the school. Recall that the school was keeping this information in a notebook.

The information that you need to create these tables in Access is presented on the last two pages of this document.

Recall from working with Unit L in your book that you need to set up the properties for your table and then you need to enter your data. Be sure to identify the correct Primary Key field for the Students Table and for the Classes Table. As you will see on the attached documents, the primary key for the Students Table is the Student ID field, and the primary key for the Classes Table is the Class Code field

You also need to pay attention to the field types. For example in the Classes Table, the Starting Date field is a Date and Time field, and the Cost field is a Currency field.

Please note the following when entering the data to your tables:

<u>In the Students Table</u>:

- You need to enter your own First Name and your own Last Name for Student 101.
- You need to enter your own Last Name in the Data Entered By field for each of the records

<u>In the Classes Table:</u>

- Enter your Last Name as the Instructor for the Breads class

Now that you have finished entering your data, you are ready to start creating queries.

Creating a Relationship, Queries and Sorting Data

Query 1 (Cost Per Class by Your Name)

- Create a query using the Simple Query Wizard
- Base the query on the Classes Table and include the Class Name, Instructor Last Name and the Cost fields in the query
- Name the query Cost per Class by Your Name
- Enter your own name in the query title
- Finish the Wizard and view the query results in Datasheet view
- View the query in Design view
- Sort the query in ascending order by the Instructor Last Name field
- **Save your changes while keeping the same query name**
- Print the query
- Close the query

Query 2 (Students Living in Salem)

- Create a new query in Design view based on the Students Table
- Include the following fields in the Query: Student ID, First Name, Last Name, City, and Data Entered By.
- Set the criteria for the City field as Salem
- Set the Sort order to ascending for the Student ID field
- **Name and save the query** as Students Living in Salem by Your Name
- Print the query
- Close the query

Query 3 (Peabody Resident Taking 2012 or Brown)

- Create a new query in Design view based on the Students Table
- Include the following fields in the Query: Student ID, Last Name, City, Class Code and Data Entered By
- Set the criteria for the City field as Peabody and set the criteria for the Class Code field to 2012
- Set the compound criteria for the Last Name field to Brown (Note: the compound criteria is referred to as "Or" criteria. It needs to be entered for the appropriate field on the "or" row. This is the row below the criteria row.
- Set the Sort order to ascending for the Last Name field
- **Name and save the query** as Peabody Resident taking 2012 or Brown by Your Name
- Print the query
- Close the query

For the next two queries, (queries 4 and 5) you need to use information from both the Students Table and the Classes Table. Because you want to use information from both tables, you need to create a relationship in Access that will join these two tables. Create the relationship as defined below:

Create the Relationship Between the Two Tables

- Open the Relationships window, then open the Show Table dialog box, if necessary
- Add the Classes table to the Relationship window, and then add the Students table to the Relationship window
- Create a One-to-Many relationship from the Classes table to the Students table using the Class Code field.
- Specify to enforce referential integrity in the Edit Relationships dialog box.
- Save the relationship and then close the relationship window.

Query 4 (Students Class List by Your Name)

- Create a new query in Design view based on the two tables
- Use the Show Table dialog box to open both the Classes Table field list and the Students Table field list.
- Note: you previously created the relationship between these two tables
- Close the Show Table dialog box
- Add the following fields to the query design grid: First Name, Last Name, Class Code, Class Name, Starting Date, Instructor Last Name, and Cost
- Set the sort order to ascending for the Class Name field.
- **Save the Query with the name Students Class List by Your Name**
- Print the query in Landscape

Query 5 (Breads Class Roster by Your Name)

- With the Student Class List Query open in Design View, set the criteria for the Class Name field as Breads
- Set the Sort order to ascending for the Last Name field
- **Use the Save As command to save the modified query as Breads Class Roster by Your Name**.
- (Note: it is very important that you **use Save As here instead of Save**. Because if you just use save, you will write over your original query and it will no longer exist.
- Print the query in Landscape
- Close out of this query

Now, you need to start creating some reports.

Creating Database Reports

Report 1 (Students by City – Your Name)

- Use the Report Wizard to create a report based on the Students table
- Include the City, First Name, Last Name, Student ID, and Data Entered By fields
- Do not group the report
- Sort the report by the City field and then sort it by the Last Name field
- Choose the Tabular layout
- Choose Portrait as the orientation
- Choose the Flow style
- For the report title, use Students by City – Your Name
- In the report title, you need to use your own name
- Close out of Print Preview and **view the report in Layout View**
- In Layout view, widen the City Column by about 1" so that the entire city name displays
- Click on the Save icon to save your changes to the report
- Print the report in Portrait
- Close the report

Report 2 (Students by Class by Your Name)

- Use the Report Wizard to create a report based on the Students and Classes tables.
- Include the Class Name, Instructor Last Name, and Cost fields from the Classes Table, and the First Name and Last Name fields from the Students Table.
- Specify to view the data by the Classes Table, then group the fields by Class Name
- Sort the records by the Last Name field in ascending order, and choose the Stepped layout with **Landscape** orientation.
- Choose the Aspect style
- Type Students by Class by Your Name as the report title
- View the report in Layout view
- In Layout View, move the Cost field to the right of the First Name field
- In Layout View, increase the width of the Class Name column and the Instructor Last Name column by approximately one inch so that all the information can be seen.
- Save your changes to the report
- Preview and print the report
- Close the report

Submit the following:

1. Hardcopy: a **cover page** (name, course, section #, date, etc.) **and staple to it the 5 queries and 2 reports in the order they were presented in the directions**.
2. Electronic Access file: send the access file via email (byi@salemstate.edu) to the instructor. **The email subject** should read like "**ITC100-05/Access Project**."

Information for Students Table

Structure of Students Table (Field Properties and Descriptions)

Field Name	Data Type	Field Size	Description
Student ID	Text	20	**Make this the Primary Key**
First Name	Text	20	Students first name
Last Name	Text	20	Students last name
City	Text	20	Where Student lives
Class Code	Text	20	Identifies course that student will take
Data Entered By	Text	20	Last name of student doing project

Data for the Students Table

Student ID	First Name	Last Name	City	Class Code	Data Entered By
101	Students First Name	Students Last Name	Salem	2010	Student Last Name
102	Mary	Smith	Salem	2011	Student Last Name
103	Barry	Jones	Peabody	2012	Student Last Name
104	Mark	Davis	Salem	2013	Student Last Name
105	Jane	Johnson	Danvers	2010	Student Last Name
106	Nancy	Penn	Peabody	2011	Student Last Name
107	Jack	Brown	Beverly	2013	Student Last Name
108	Ken	Miller	Lynn	2013	Student Last Name
109	Cindy	Morris	Lynn	2010	Student Last Name
110	Sharon	Marks	Salem	2014	Student Last Name
111	Trish	Nelson	Peabody	2011	Student Last Name
112	Anna	Chen	Danvers	2013	Student Last Name
113	Erica	Rinzer	Salem	2010	Student Last Name
114	Alex	Wilson	Peabody	2012	Student Last Name
115	Tom	Ricker	Beverly	2014	Student Last Name
116	Chelsea	Kinder	Danvers	2010	Student Last Name
117	Lucy	Norris	Peabody	2011	Student Last Name
118	Sue	Kent	Lynn	2012	Student Last Name
119	Tim	Brown	Lynn	2014	Student Last Name
120	Amy	Jordan	Salem	2010	Student Last Name
121	Matt	Candy	Salem	2013	Student Last Name
122	Karen	Green	Peabody	2011	Student Last Name
123	Mary	Miller	Peabody	2012	Student Last Name
124	Anne	Gables	Beverly	2014	Student Last Name
125	Krista	Brown	Beverly	2013	Student Last Name

Information for the Classes Table

Structure of Classes Table (Field Properties and Descriptions)

Field Name	Data Type	Field Size	Description
Class Code	Text	20	**Make this the Primary Key**
Class Name	Text	20	Name of class
Instructor Last Name	Text	20	Last Name of class instructor
Starting Date	Date/Time		Date class starts
Cost	Currency		Cost of the course

Data for the Classes Table

Class Code	Class Name	Instructor Last Name	Starting Date	Cost
2010	Breads	Student's Last Name	3/1/2009	$150.00
2011	Cakes	Smith	6/1/2009	$175.00
2012	Candy	Brown	4/1/2009	$125.00
2013	Cookies	English	5/1/2009	$250.00
2014	Pastry	Johnson	6/1/2009	$150.00