Student Name: Sarvesh Kaushik Date: 9/17/2021

Instructor: Luke Papademas Class:ITMD 523

**Add New Records to Your MS Access Database Tables**

Open the **Consultants** table in Access and add a new record to the table in the [ Datasheet ] view. But, instead of **Murphy** use **your own** **last name** for the LastName field.

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**Design a Database Form Object**

After you create the Form object, add a new record to the **Consultants** table. Use this data for your new record.

|  |  |  |  |
| --- | --- | --- | --- |
| ConsultantID | LastName | HourlyFee | YearsOfService |
| 111 | Johnson | $78.00 | 11 |

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**Perform an SQL Query with the MS Access Database Tables**

Adjust the original SQL statement such that it appears as follows.

|  |
| --- |
| **SELECT Consultants.ConsultantID, Consultants.LastName, Clients.TotalCharge**  **FROM Clients**  **INNER JOIN Consultants ON**  **Clients.ConsultantID = Consultants.ConsultantID**  **WHERE (((Clients.TotalCharge) > 500)) AND (((Clients.TotalCharge) < 1000));** |

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**Perform Multiple SQL Queries with Your Database Tables**

Run a query that will return database records based on these criteria.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| Field: | EndDate | ConsultantID |  |  |
| Table: | Clients | Consultants |  |  |
| Sort: |  |  |  |  |
| Show: | [ x ] | [ x ] | [ ] |  |
| Criteria: | >=#8/1/2021# | >103 |  |  |
| or: |  |  |  |  |

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**Query 2 ( Update Query )**

This particular exercise involves running an Update Query. Attempt to run an update query that will return database records based on these criteria and settings.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Field: | EndDate | ConsultantID |  |
| Table: | Clients | Consultants |  |
| Update To: | #10/1/2021# |  |  |
| Criteria: | >#8/1/2021# | >103 |  |
| or: |  |  |  |
|  |  |  |  |

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**Query 3 ( Make Table Query )**

In a manner similar to the above steps, run a Make Table Query. Name the new table as: **Back\_Up\_Your\_Initials** ( i.e. the words Back UP followed by your own initials )

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**Query 4 ( Delete Query )**

This next exercise involves constructing a Delete Query. Attempt to design a Delete Query that will remove the consultant whose last name is " Smithers. "

Delete query to remove the record called smithers. we currently do not have any data field as a smithers in our database so the execution of query will represent the zero rows affected.

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Table

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**Query 5 ( Advanced Select Query )**

Using both the **Consultants** and the **Clients** tables in your database, construct a meaningful query, of your own design, that implements both an AND logical operation and an OR logical operation. Graphical user interface, application

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**Generate an MS Access Database Report**

**Report 1 ( Report: The Consultants Table )**

In the manner of the prior step, generate a new report of your choice based on only the **Consultants** table.

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**Report 2 ( Report: ID Fields )**

Create a report that only shows the primary key fields from both the **Consultants** table and the **Clients** table.

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**Report 3 ( Report: Based on a Query )**

Create a professional report of your own design that is based on one of the queries that you constructed earlier. Report is based on the Query\_5 from the table.

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**Report 4 ( Report: Custom )**

In the MS Access **Navigation Pane**, select one of your tables, click [ Create ] on the menu Ribbon and click [ Report ] in the **Reports** group. In the [ Layout View ]change the propert the Auto\_Time text box from the default setting to Short Time.Table

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**Report 5 ( Query Report )**

Design a report based on one of your queries that you designed earlier. Consider the following report is based on the query1 from the BusinessData Database. Query1 is the initial query that has been executed to get consultant ID, last name, and Total Charge, it has effectively incorporated the use of inner join.

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**Database Administrative and Management Tasks**

With your database file opened in MS Access, click [ Database Tools ] on the Ribbon. Observe the groups that are available within this tab and especially those shown below.

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**Administrative Task 1**

Open the [ Database Documenter ] and examine the properties of your current database.

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**Administrative Task 2**

Open the **Performance Analyzer** and analyze a relationship in your database application

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**Administrative Task 3**

Open the **Performance Analyzer** and analyze one of the tables in your database application.

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**Administrative Task 4**

In the MS Access **Navigation Pane**, select one of your queries. Open the **Object Dependencies** link and expand all of the database objects that are visible to reveal all of the dependencies. Take a snapshot of the object dependencies.

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**Administrative Task 5**

Open the MS Access main menu and click [File ] to navigate to the [ Backstage View ] to create a back - up copy of the database application. Save the back - up copy using the default name followed by your initials

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**Split Your MS Access Database File**

Split your database application.

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Step 15:

1. List four MS Access data types that were used in one or more of the tables that comprise your database file.

Consider the following list of Datatypes while creating the Access Database,

* Number: It is used in both Consultants and the Clients table
* Currency: Currency also used in both clients and consultant tables in the form of Total Charge and the hourly Fee.
* Date: It has been used in both the tables in the form of Start date and End Date.
* Short Text: It is primarily used to represent the Clients and Consultants names from both tables.

1. The **Consultants** table has the ConsultantID field as the primary key and the Clients table has the ClientID as its primary key. Which of the two tables, Consultants or Clients, has a foreign key reference to the other table?

Consultant Table is having the foreign key reference to the other table as The primary key in the Consultant Table is acting as a foreign key in the Clients table to uniquely identify the rows in the Consultant Table.

1. SQL is a standard for database management. What do the letters in the abbreviation SQL represent? Does a Table object have an SQL view? How do you open the SQL View of a query object?

SQL Stands for Structured Query Language. Table object is not having the SQL View itself. Table object comprises of two different view Design View and Datasheet View.

In order to open the SQL View for the query you have to click on home tab then view tab and then simply select the SQL View option from the drop-down list.

1. During this project, you queried the two tables that were included in your database file. In your first query, which field of the **Clients** table had this criterion setting?

>1000

Total charge in the Clients table is the field having the setting where criteria is greater than 1000.

5>When using the **Report Wizard** to create a report for your tables, which sort order appears by default: Ascending or Descending?

When we create the report, by default the records are arranged in the ascending order and we can simply switch the order of field with the help of ascending or descending tab.

6>When using the database documenter, explain how you would navigate this feature

to reveal the following information.

To get permissions by user group one should follow the steps as given below,

Open Database Documenter

click on the options

uncheck all the section in the first section except Permissions by User and Group

select nothing in the Sections and Controls. Finally, Click on OK at the End.

1. Explain the importance of referential integrity when performing the Joins, or any modifications for the Databases.

Referential Integrity: When the references to one or more instances of entities in the table to one or more instance of entities in the other table are Valid, referential integrity is established.

Referential Integrity is applied for the several Advantages as given below,

1>Referential integrity is responsible for the correctness of the Data. it helps to prevent access from pointing to the nonexistent field in another table.

2>It also helps us to prevent the deletion of the record that contains a value referred by the foreign key in another table.

3>It helps to prevent the addition of a record to a specific table if it contains foreign key, only if there is primary key in the linked table.

4> Eliminates Data Redundancy by blocking duplicate Data fields.