MIS 311 Fall 2019 / <u>Access Assignment (110 points)</u>

You work for the ABC, a non-profit organization, which accepts donations from individual donors and disseminates them through multiple agencies. Until now, data on donors, donations, and agencies used to be tracked in an Excel file, "Donations Data File".

Now, your manager wants to replace the Excel file with a database in order to store and process donations data. For creating the database, make use the "Donations Data File". After you create the database, you are required to create a couple of standard queries that will help your manager to analyze the donations and a report that will be presented to the donors annually. Moreover, your manager plans to hire a student to enter donation data; yet, he does not prefer that the students makes the entries directly to tables due to security reasons. Hence, you are required to design a user interface for data entry.

INSTRUCTIONS

A. Database Creation

Create the database by following the below instructions and name it ***ABCDonationsTeamX.accdb***. X should indicate the teammembers' last names. **Only the teammembers whose lastnames mentioned in the filename will get a grade.**

Donor table (15 p)

1. Create the Donor table with below fields and characteristics and name the table as Donor

Field Name	Data Type	Field Size
DonorID	Number	Long Integer
Title	S. Text	4
FirstName	S. Text	20
LastName	S. Text	25
Phone	S. Text	14

2. Import donor data from the relevant sheet of the given Excel file. During the import, make sure that you choose the correct option at the first step of the import. (Hint: You are not importing data into a new table, you are adding records to an existing table).

3. After you import the data from Excel to the Donor table, re-check the data type and field properties in Access. Make sure that the table has a proper primary key and the primary key is marked as Required: Yes and Indexed: Yes / No duplicates in the property pane.

4. Apply an appropriate input mask for the phone number.

5. Add a new field for YearofBirth that indicates the year part of the birthdate of the donor. Choose the correct data type and field size. Enter date values for ALL records (there are 19 records in that table).

Agency table (12 p)

6. Import agency data from the relevant sheet of the given Excel file. Name the table as Agency. During the import, make sure that you choose the correct option at the first step of the import. (Hint: This time you are importing data into a new table, that does not exist before)

7. After you import the data from Excel to the Agency table, re-check the data type and field properties in Access. Make sure that the table has a proper primary key and the primary key is marked as Required: Yes and Indexed: Yes / No duplicates in the property pane.

8. Change the field properties as required below

Field Name	Data Type	Field Size
AgencyID	S. Text	3
AgencyName	S. Text	40
ContactFirstName	S. Text	20
ContactLastName	S. Text	25
Address	S. Text	30
City	S. Text	24
State	S. Text	2
Zip	Number	Long Integer
Phone	S. Text	14

9. Add 2 new records (meaningful not xyz or abc) to the Agency table, and then save the table.

Donation table (14 p)

10. Import donation data from the relevant sheet of the given Excel file. Name the table as Donation. During the import, make sure that you choose the correct option at the first step of the import. (Hint: This time you are importing data into a new table, that does not exist before)

11. After you import the data from Excel to the Donation table, re-check the data type and field properties in Access. Make sure that the table has a proper primary key and the primary key is marked as Required: Yes and Indexed: Yes / No duplicates in the property pane.

12. Change the field properties as required below and identify the foreign keys under description column in the design view:

Field Name	Data Type	Field Size	Other
DonationID	Number	Long Integer	
DonorID	Number	Long Integer	
AgencyID	S. Text	3	
DonationDate	Date/Time		Format: Short Date
DonationDescription	Long Text		
DonationValue	Currency		Format = Currency Decimal Places = 2
PickupRequired	Yes/No		Format = Yes/No

13. Add below records to the Donation table and save the table. (Hint: My date settings are MM/DD/YYYY. Yours might be DD/MM/YYYY or DD.MM.YYYY depending on how your machine was installed. Check your Access settings and enter data accordingly)

Donation ID	Donor ID	Agency ID	Donation Date	Donation Description	Donation Value	Pickup Required

2217	36012	A82	12/25/2011	Cash	50	YES
2222	36016	A64	11/11/2011	Cash	35	YES
2300	36001	A82	1/31/2013	Cash	30	NO

Relationships (4 p)

14. Set the relationships between Agency, Donor and Donation tables (Hint: You will set only two relationships and be careful about setting them correctly, i.e. enforcing referential integrity). Save the changes to the Relationships window.

B. Queries (5 * 10 p)

Create below queries either via the Wizard or directly via the Design function.

Donations by Donor

15. Prepare a list of donations by donors. Display the Donor ID, First Name, and Last Name of the donor, the donation date, and the donation value in this given order. The list should be sorted first by the donor's last name in ascending order, second by the donor's first name in ascending order, and then by the donation value from smallest to largest. Save the query as Donations by Donor.

Large Cash Donations in Q1

16. Prepare a list of donations that are in cash AND value more than or equal to $60 AND donated in the first quarter of 2010. The first quarter should cover the period from 1st of January to 31st of March of 2010. Display the Donor ID, First Name, and Last Name of the donor, the donation date and the donation value in this given order. (Hint: do NOT show the DonationDescription in the list, as they all indicate the cash ones). Save the query as Large Cash Donations in Q1.

Clothes or Junction City Donations

17. Prepare a list of donations of clothes OR donations made in Junction City. Display Donation ID, Donation Date, and Donation Description, Agency ID, Agency Name, City in this given order. The list should be sorted first by City, then by Donation Description in ascending order. Save the query as Clothes or Junction City Donations.

Donation Statistics by Agency

18. Prepare a list of donations by Agency. Display the sum, the average, the maximum and the count of donation value grouped by Agency Name that should appear as the first field. Rename the columns as Total Donations, Average Donation, Maximum Donation and Number of Donations. The list should be sorted by Total Donations in descending order. Save the query as Donation Statistics by Agency.

Donors without Donations

19. You will call the registered donors who did not make any donation yet. For that purpose, prepare a list of donors that fulfill the above criterion. (Hint: Identify donors in the Donor table who have no matching records in the Donation table.) Display the Donor ID, Title, First Name,

Last Name, and Phone. The list should be sorted by Last Name in ascending order. Save the query as Donors without Donations.

B. Report (10 p)

Donors and Donations Report

20. Create a report of donations grouped by donors. Display the Title, First Name, and Last Name of the donor, and the Donation Date and the Donation Value. Group the list by the DonorID from smallest to largest. Show the sum of donation value for each donor at the group footer, and the grand total of donations at the report end. Do not show the date at the end of the report, but display page number at the end of each page. Insert a note (label) describing the report and the names of the team members (i.e. employees) who generated the report. Save the report as Donors and Donations.

C. User Interface (5 p)

Agency Information Form

21. Create a form to enter modify agency records. Insert date/time, one picture / logo / image, and a note indicating that the form was designed by x,y,z employees. Be creative to make the form more user friendly. Save the form as Agency Information.