BIS 601 Assignment #6 Access 3

Case: Management Development Institute (MDI)

Scheduling and Controlling Seminar Events

Objectives

In this case you will learn how to:

- Create an Access database
- Create a table
- Design a table
- Import data from Excel
- Specify the primary key
- Create a relationship between tables
- Design a report
- Use the Report Wizard
- Calculate fields
- Use aggregate functions
- Use query summary features

Management Development Institute (MDI) was founded in 1984 by Harry D. Cougar to deliver quality continuing education to managers and business leaders. Harry continues to serve as MDI's President and Chief Operating Officer, directing operations from the company's modest headquarters located at the foot of the Rocky Mountains in Golden, Colorado. MDI's seminars are presented at a variety of locations across North America, Europe, and Japan - wherever a management training need exists.

Daniel "Dan" MacFadden, MDI's Vice President of Operations, has overall management responsibility for developing seminars, scheduling seminars, recruiting and assigning instructors, arranging facilities, and monitoring activities. For each seminar, Ingrid Olson, the Seminar Coordinator, arranges a facility where the seminar is to be conducted. She frequently rents meeting space at popular and readily accessible hotels in each city where a seminar is scheduled. Ingrid knows the importance of reserving quality space, since an uncomfortable environment can have significant impact on the quality of a seminar.

During their recent management retreat in Breckenridge, Harry, Dan, and Ingrid discussed the possibility of establishing a database to provide them with better information for managing their operations. Dan described to Harry and Ingrid how a Seminar Management System (SMS) could be used to address a number of ad hoc questions concerning their seminar events, including those concerned with monitoring and controlling the seat inventory. A **seminar event** (delivery) is when a seminar is held at a particular location on a scheduled date. Ingrid described the embarrassment of MDI last week when she discovered that a seminar was overbooked, because she did not have an accurate count of seats sold. Since MDI highly values its customer relations, both Harry and Dan want to avoid this situation in the future. Harry supported Ingrid's concern for better inventory control information. It seemed that Dan's proposal for a SMS would meet their needs.

Ingrid worked with Dan to design their database. They determined the data should be arranged into two different tables. One that contains the data for a seminar; and another that has the data for an event, which is the delivery of a particular seminar. With this design, they can enter the seminar data only once, and then they can reference that data as they need it with each event. The result is their Entity Relation Diagram (ERD) (Figure 1). Their ERD indicates there can be multiple events for each seminar. That is, a one-to-many relationship exists between seminars and events.

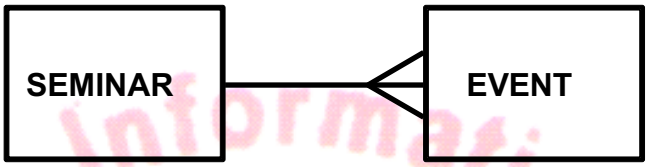

***Figure 1**: Entity-Relation Diagram (ERD)*

They continued with their design by placing the specific data that is unique for each seminar in one database table (Figure 2), while the data specific to each event was placed in another database table (Figure 3). The SeminarID in the event table acts as a foreign key linking the two tables.

FIELD NAME	FIELD DESCRIPTION	DATA TYPE	FIELD SIZE
SeminarID	Identification number uniquely designating each seminar	Short Text	10
SeminarName	Name of seminar	Short Text	30
Program	Program group (category) of seminar	Short Text	5
Duration	Duration of seminar in days	Number	Integer
Credits	Number of Continuing Education Credits	Number	Single
Fee	Seminar fee or price	Currency	(Automatic)

***Figure 2**: Seminar Table Structure*

FIELD NAME	FIELD DESCRIPTION	DATA TYPE	FIELD SIZE
EventID	Identification number uniquely specifying each offering of a seminar – a seminar event	Number	Integer
SeminarID	Identification number uniquely designating each seminar	Short Text	10
Location	City where seminar event is to be held	Short Text	30
Date	Beginning date of seminar event	Date/Time	(Automatic)
Seats	Total number of seats for seminar event (event capacity)	Number	Integer
Sold	Number for seats sold for a seminar event	Number	Integer
ArrgComplete	Whether or not facility arrangements are completed for a seminar event	Short Text	3

***Figure 3**: Event Table Structure*

You have been asked to perform the following tasks to build MDI's Seminar Management System. When finished, submit your database in Blackboard.

Task 1: Launch Access and create a new database that you name MDI.accdb. Create a new table, that you name Seminar, which contains the fields from the Seminar table structure (Figure 2). Specify the SeminarID as the primary key for this table. Save your database with your newly defined table.

Task 2: Add the following records (rows) to the Seminar table:

SeminarID	SeminarName	Program	Duration	Credits	Fee
C08104	COMMUNICATION SKILLS	MGT	3	1.8	1415
C09231	EFFECTIVE EXECUTIVE SPEAK	MGT	3	1.8	1195
F08314	FOREIGN EXCH STRATEGIES	FIN	2	1.2	1125
F09101	FINANCIAL ANALYSIS	FIN	4	2.5	1495
T10512	KNOWLEDGE MANAGEMENT	MIS	3	1.8	1100

Save your Seminar table. You are now going to obtain the remaining records for the Seminar table from an Excel file. This saves you the effort of typing this data. Open the **MDI_Seminar F22.xlxs** file. Copy the seminar records to the Windows clipboard. Return to Access. Select your Seminar table and then select the Datasheet View. Select the blank record below your last entry in the table. Use the Paste Append command to include these records in your Seminar table.

Task 3: Add the Event table to your MDI database. Use the External Data → Import Excel spreadsheet command. The Events data is stored in the **MDI_Event F22.xlxs** file. After you have imported the Event table from Excel, then use the Design View to specify the data type as indicated in the Event Table Structure (Figure 3). Specify EventID as the primary key for this table.

Task 4: Create the relationship between the Seminar table and the Event table as shown by the ERD (Figure 1). Make sure to enforce all referential integrity constraints.

Task 5: Create an EventsList query using the Event and Seminar tables. This should include all the database fields. However, there should be **no** duplicate field names in the query.

Task 6: Dan and Ingrid have several questions for which they want information. Do these queries to help Ingrid obtain answers for those questions. She has prepared a Planning Analysis (Figure 4) to specify how to calculate fields needed in some of the queries.

Planning Analysis

Field Name	Field Description	Data Type	Calculation
SeatsAvailable	Available seats for an event	Number	Seats – Sold
RevSold	Revenue of sold event seats	Number	Sold * Fee
RevSeats	Revenue of Seats in each seminar event	Number	Seats * Fee

***Figure 4**: Planning Analysis*

The queries which Dan and Ingrid want you to answer are as follows:

a. Which seminar events are scheduled to be held in Denver? List the SeminarID, SeminarName, and Date. Sort the results by Date in ascending order. Name the query Task6A.

b. Which 2022 seminar events do ***not*** have the local arrangements completed? List the EventID, Location, and Date. Sort the results by Date in ascending order. Name the query Task6B.

c. What is the total revenue by seminar? List the SeminarID, SeminarName, and the revenue of sold event seats (RevSold). Name the query Task6C.

d. Which seminar events are sold out? List the SeminarID, SeminarName, EventID, and Date. Name the query Task6D.

e. Which MIS seminar events are available for a Fee of $1,100 or less? List the SeminarName, Location, Date, and Fee. Sort the results by Date in ascending order. Name the query Task6E.

f. What is the total ***possible*** revenue? List the revenue from all seats in all seminars (RevSeats). Name the query Task6F.

g. What is the average seminar fee? Name the query Task6G.

h. Which seminars are the most/least popular? List the SeminarID, SeminarName, and the average number of seats sold. Sort the results by the average number of seats sold in descending order. Name the query Task6H.

i. What is the average duration of a seminar? Name the query Task6I.

j. How many 2022 seminar event seats remain to be sold? List the SeminarID, SeminarName, EventID, Date, and the number of available seats (SeatsAvailable). Sort the results by Date in ascending order. Make sure to only list those events which have available seats. Name the query Task6J.

Task 7: Ingrid wants you to create a Seminar List report. This is a list of the current seminars that she can send to potential attendees. The report should include the SeminarID, SeminarName, Duration, Credits, and Fee fields from the Seminar table. Figure 5 shows a design sketch for this report.

Management Development Institute

Seminar List

(current date)

Created by: ***Your Full Name and Class section***

Name	Number	Length	Credits	Price
AFFIRMATIVE ACTION PLAN	M09334	2	1.2	$995
CASH MANAGEMENT	F09411	2	1.2	$1,345
COMMUNICATION SKILLS	C08104	3	1.8	$1,415
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	.			
	.			

Figure 5*: Seminar List Report Design Sketch*

Task 8: Dan wants you to create a Seminar Schedule report. This is a list of the current seminar events that are available from MDI. The report should include the SeminarName, Date, Location, and EventID fields from the Seminar and Event table. Figure 6 shows a design sketch for this report.

Management Development Institute
Seminar Schedule
(current date)
Created by: ***Your Full Name and Class section***

Name	Date	Location	EventID
AFFIRMATIVE ACTION PLAN	10/17/2022	SAN FRANCISCO	8111
	12/24/2022	DENVER	8114
	1/9/2023	LOS ANGELES	8112
	3/15/2023	PHOENIX	8116
CASH MANAGEMENT	9/26/2022	CHICAGO	1278
	12/1/2022	CHICAGO	1281
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	.		

Figure 6*: Seminar Schedule Report Design Sketch*

Task 9: Dan wants you to create a short WebEx video, about 1 minute highlighting some of the tasks you undertook. Upload a link to your video in Blackboard.

Access Features

Feature	Help Lookup Key Word	Help Lookup Topic
Aggregate functions	Aggregate functions	Display column totals in a datasheet → Understand Sum and the other aggregate functions
Calculate fields	Calculate fields	Calculated fields
Create database	Create blank database	Create a new database → Creating a database without using a template
Create relationship	Create relationship	Create, edit or delete a relationship
Create table	Create table	Create a table
Import data from Excel	Import Excel	Import data from Excel to a new table in Access
Primary key	Primary key	Create or remove a primary key
Report Wizard	Report Wizard	Create a simple report → Create a report by suing the Report Wizard