IS 201 – Access Project Overview

The goal of this project is develop a database for ShapeShifters, a fitness center that provides regular gym membership with exercise equipment and classes as well as personal training services. The database should keep track of all customers, their memberships, and their completed and scheduled personal training sessions.

By the end of the third part of this project, you will have a database populated with sample data provided for you and with sample data that you make-up, a set of forms to input and view data, queries to create information from the data in the database, and reports to view information from the database. Sample data for ShapeShifters is provided to help you understand the application by looking at what data must be stored in the database. The sample data is available in an Excel worksheet called "ShapeShiftersSampleData." The worksheet is available on the web in the same cell of the schedule where you obtained this part (part 1) of the project. The link for the data is called "Sample Data Requirements."

Each row in the worksheet represents one training session (either scheduled or completed) for a customer (called a "TrainingEvent"). The first seven columns contain data about the customer who made the transaction. For example, the first valid row of data shows that personal training was received by customerID 10058, Melanie Flobert, located in Reno NV. Melanie has a standard membership and pays $72/month for the use of the fitness center. The personal trainer who performed the training was Trainer ID 312, Jane Martin. Jane earns $25/hour. The training was conducted for 1 hour on 8/20/2013 and Jane included her notes about the training once it was completed. The hourly price for training to the customer was $65. Here is some additional information about the sample data:

1. A customer has only one address and phone number.
2. The hourly price of training is based on the training event. Each event has a training hourly price.
3. The additional equipment price also depend on when a specific training event occurs. For example in the sample data, the training expenses for the first row of data is zero, while the additional equipment price for pilates training is $35.
4. The monthly membership fee depends on the type of membership. The monthly membership fee does not fluctuate based on the customer who has that fee. So, if a customer has a standard membership, then the membership fee is always $72/month.
5. It is possible that a customer is in the database, but has no personal training sessions completed or scheduled.
6. It is possible that a trainer is in the database, but has no training sessions completed or scheduled.
7. The hourly rate paid to a trainer is related to a trainer. A trainer only has one hourly rate.
8. The database should store training events that have been completed, and those that are scheduled but haven't been completed. The column named "Training completed" in the spreadsheet tells you whether or not a training event has been completed. A training event that has not been completed will not have training notes (the training notes will be a null value) and will not have a value in the column called "additional equipment price".
9. There is some data that should be stored that is not on the sample data spreadsheet. You should create an address, city, state, zip, and phone number for each trainer.

Access Project Part One

Your tasks for part one of the Access Project Design are to design a database for the application, create the required tables in an Access database, relate the tables and populate each table with sample data. Some of the deliverables will be on paper and the others will be in an .accdb file.

<mark>Turn in the following on a piece of paper:</mark>

1)   Each team member's name:

2)   A database design using either the crow's foot notation discussed in class or the MS Access relationship diagram notation. The design must include a primary key for each entity, a foreign key for each relationship and all necessary attributes to store the data required by the application. An entity on the diagram will become a table in MS Access – just like the diagrams we have been working with in class.

3)   The name of the .accdb file for the team (or for you working as an individual).

<mark>Upload your or your team's .accdb to the Assignment Uploads folder:</mark> Turn in the required database in an .accdb file that is uploaded to the Assignment Uploads\IS201\Hilfer folder. Name your file with the last name of one of the group members and the notation "AccessProj1". For example, my file would be called: HilferCAccessProj1.accdb.

The required database should include the following components:

1. All tables on the design created with appropriate data attributes. Each data attribute should have an appropriate data type and size with input masks for phone numbers.
2. All tables related correctly with foreign keys. You are required to use the lookup wizard to relate a customer to a TrainingEvent. You are required to use the lookup wizard to relate trainer to a TrainingEvent. You are required to use the lookup wizard to relate a membership type to a customer.   **Review pages AC 254 – 257 for instructions on using lookup fields.**
3. All tables populated with appropriate data. You must have the 12 training events provided in the ShapeShiftersSample data worksheet. The customers and trainers on that worksheet must be included in the database. Please use the exact dates and numbers on that worksheet in your database data.   In addition to the sample data provided in the worksheet, you must "make-up" realistic data for your database. The total test data set must include: • At least 10 customers. Make sure that some (but not all) of the customers have a billing address in Reno.   • At least 25 training events.   A training "event" is an actual personal training session scheduled and/or conducted for a customer. Each row in the worksheet represents a training "event." The sample worksheet has 12 training events. Be sure to input you're your database those 12 training events with the same data provided on the spreadsheet. Make sure that some of the customers have more than one training event in the database. At least three customers should have more than three training events in the database. Some of the customers should have zero training events in the database. The sample data has at

least one training event per customer, so just make sure that two of your new customers have NO training events.

- At least 10 trainers. Some of the trainers should have multiple training events. Two of the trainers should have zero training events in the database.
- At least 5 different membership types. The sample data has three different types of membership, so you only have to make-up two more!

Part 1 of the Access project will be graded using the rubric provided below

Name _____

	Task	Evaluation Score: Missing = 0; Poor = .25; Average = .5; Almost Right = .75; Great = 1	Weight	Score
Paper - Names of file and team members		1	0.05	5.00%
Database uploaded correctly		1	0.125	12.50%
Database Design	Submitted on paper using correct notation, either written or screen capture	1	0.05	5.00%
	Correct tables to store data without redundancy	1	0.2	20.00%
	Accurate relationships	1	0.1	10.00%
Table creation	All tables created correctly with relationships	1	0.1	10.00%
	Enforce referential integrity	1	0.05	5.00%
	Data types are correct and appropriate	1	0.05	5.00%
	Input masks are correct and appropriate	1	0.025	2.50%
	Used a lookup wizard correctly	1	0.025	2.50%
	Tables populated completely and correctly	1	0.225	22.50%
OnTime	Paper and .accdb file turned in on time (Yes or No)	yes		
Grade				100.00%