

# Microsoft Access, 2016

## Assignment #1

In this assignment you will be building a table for storing nutritional data supplied by USDA National Nutrient Database (<https://ndb.nal.usda.gov/ndb/search>) and then filling it with some of the foods you would find in the grocery store or cafeteria. You will add a few records, build a form for easy data entry, import records, create queries for healthy and not so healthy foods, and finally generate reports of your results.

### Set-up

- 1) Create a new blank desktop database and save it as "Nutrition\_LastName\_FirstName" replacing the words LastName and FirstName with your name.
- 2) Modify the default table by saving it as "nutrition\_data" and creating the following fields:

Field Name	Data Type	Field Size	Decimal Places	Notes
Food	Short Text	75		Not a key field
Calories	Number	Integer	Auto	
Protein	Number	Single	2	
Fat	Number	Single	2	
Carbohydrate	Number	Single	2	Caption="Carbs"
Fiber	Number	Single	2	
Sugar	Number	Single	2	
Category	Short Text	20		

### Add Data

- 3) Save the table and view it in "DataSheet View" to add the following entry:
  - Food: "whole milk"
  - Calories: 61
  - Protein: 3.15
  - Fat: 3.25
  - Carbohydrate: 4.8
  - Fiber: 0
  - Sugar: 5.05
  - Category: "Dairy"
- 4) Save the table and create a form for ease of data entry called "nutrition\_data\_entry".
- 5) Using the form just created, switch to "Form View" and add the following two records

Food	Calories	Protein	Fat	Carbs	Fiber	Sugar	Category
butter	717	0.85	81.11	0.06	0	0.06	Dairy
eggs	143	12.56	9.51	0.72	0	0.37	Dairy

- 6) Close the new form and confirm that the new data has been added to the original table (if the records do not show up hit the "F5" key to refresh the screen).

- 7) Close the “nutrition\_data” table, and choose to import the Excel table “nutrition\_start.xlsx” and append a copy of the records to “nutrition\_data” (do not analyze the data after importing and do not save the import steps).
- 8) Open the “nutrition\_data” table to confirm that it now contains 120 records. Resize the “Food” and “Category” columns so that all of the information in each record is displayed.

### Create Queries for the Data

- 9) Using the “Query Wizard” select records that show healthy foods. In this case “healthy” food have less than 5 grams of fat and more than 10 grams of protein. Start the “Query Wizard” and select the “Simple Query Wizard”. With the “nutrition\_data” table selected, add all available fields to the query. Show the “Detail” records and name the query “Healthy\_Foods”.
- 10) Select the “Modify Query Design” option and hit the “Finish” button to add the selection criteria for healthy food. In the column named “Protein” enter the criteria “>10”, and in the column named “Fat” enter the criteria “<5”. Run the query and save it to see the seven foods that meet this definition of “Healthy.”
- 11) Again, using the “Query Wizard” select records that are considered “High Energy Sweets” which have more than 500 calories and are in the category “Sweets”. Start the “Query Wizard” and select the “Simple Query Wizard”. With the “nutrition\_data” table selected, add all available fields to the query. Show the “Detail” records and name the query “High\_Energy\_Sweets”.
- 12) Select the “Modify Query Design” option and hit the “Finish” button to add the selection criteria for high energy sweets. In the column named “Calories” enter the criteria “>500”, and in the “Category” column add the criteria “Sweets”. Run the query and save it to see the nine records that meet this definition of high energy sweets.

### Report the Results of the Queries

- 13) Close any query results and the data table (if any of them are open) and open the “High\_Energy\_Sweets” query in the “Datasheet View”.
- 14) Create a report and in the layout view narrow the columns until the report fits on one page. Move the footer (“Page 1 of 1”) so it fits on the same page. Right click on the “Record Count” and right click to choose “Delete” to remove it from the report. Save the report changes as “High\_Energy\_Sweets\_Report”.
- 15) Repeat the prior two steps to create a report on “Healthy Foods” called “Healthy\_Foods\_Report”.

### Finish the database

- 16) Save the database and add a comment in the document properties with your name and today’s date.
- 17) Submit the worksheet following the instructions given to you by your instructor.