

VETERANS UPWARD BOUND

~Educating America's Best~

Objectives-Creating, Sorting, and Querying a Table/Data Validation/Using Database Functions

Students will have mastered the material in this project when they can:

- Use the VLOOKUP function to look up a value in a table
- Sort a list on one field or multiple fields
- Query and search a database using Autofilter
- Validate Data
- Apply database functions, the SUMIF and COUNTIF functions

Overview

In this project students learn how to create, sort, and filter a list (also called a database). They explore the different sort options available as well as filtering data. After the list is sorted, students use the Subtotals command on the data menu to generate subtotals that Excel displays within the list range. They filter the list, which involves displaying a subset of the list or copying (extracting) records that pass a test. Students learn how to use the database functions, the lookup functions. Finally, the project explains that Excel can save a workbook in more than 30 different formats, so that the data can be transferred to other applications easily. The project steps students through saving an Excel workbook in a CSV file format, so that the list can be read by other applications, such as Notepad.

Background:

You are a member of the Enviro Student Club, a club for young adults interested in protecting the environment. You've been asked to create a list of the club's members as well as additional information.

Basic Solution:

1. Open Enviro Student Club on Moodle.
2. Format the titles and column widths and assign appropriate formats.
3. Rename sheet tab Enviro Student Lab
4. Use the Form command to enter your name and information into the list.
5. Format the Grade table and assign appropriate formats and rename the sheet tab Grade Table.
6. In cell H8, enter the VLOOKUP function as: =VLOOKUP(G3, 'Grade Table'!\$A\$3:\$B\$15,2). Copy the function to H9:H17.
7. Select D8:D100. Click Validation on the Data menu. Under the settings tab and the allow box choose List. For source, type F,M. On the Error Alert tab, choose the style, under title, enter "Gender Invalid" and under the error message box, enter

- “Gender Code must be an F or M. Click ok to leave data validation. Try to enter anything except F or M, to test your validation
8. Hide columns G and H by selecting the columns, right clicking in the selection and choosing hide. Unhide the columns by selecting F and I, right clicking in the selection and choosing unhide. The same process would be used for hiding rows.
 9. Change the following GPA’s to see the changes:
 - a. 432671 = 3.75
 - b. 698372 = 2.10
 - c. 817263 = 1.10
 10. Sort the list in ascending sequence by the Pledge amount
 11. Sort the list by GPA within Gender. Use descending sequence for both fields.
 12. Sort the list by Age within Gender. Use ascending sequence for both fields.
 13. Displaying automatic subtotals is a powerful tool for summarizing data in a list. Select cell D8, then navigate to the Data Ribbon. Click Subtotal (Outline Group). Based on what you may want to subtotal, select the various criteria (will be discussed in class). Click Ok to exit the menu. To remove subtotals, follow the same guidelines, and click on the Remove All button.
 14. Using the Autofilter feature allows you to find records in a list. To turn on the Autofilter, click Data on the menu bar, then Filter, then Autofilter. You will not that now each field has a drop-down arrow.
 15. To save the workbook in CSV (comma separated values) format, go to File on the menu bar and choose Save As. Under Save As type, choose CSV. Open the file in a word processing program.
 16. Using the SUMIF function, sum the pledges for the males in the class. Again, use the SUMIF function to sum the pledges for the females in the class.
 17. Using the COUNTIF function, count the number of GPAs that are greater than 3.00.

	A	B	C	D	E	F	G	H	
1	Enviro Student Club								
2	Student ID	Lname	Fname	Gender	Age	Pledge	Amount	GPA	Grade
3	238192	Callum	Frank	M	23	\$	3,590.00	3.21	B-
4	321453	Gonzalez	Julie	F	25	\$	5,210.00	4.32	A+
5	432671	Chung	Lin	F	21	\$	1,250.00	1.23	D-
6	562718	Fairbanks	Thomas	M	19	\$	8,125.00	3.67	B+
7	605241	Spooner	Troy	M	23	\$	7,825.00	3.91	A-
8	623178	Bell	Katrina	F	26	\$	675.00	4.15	A
9	698372	Franks	Judy	F	20	\$	1,250.00	0.62	F
10	716253	Lopez	Hector	M	19	\$	3,775.00	3.5	B+
11	756172	Wentworth	Audrey	F	24	\$	10,500.00	1.77	D+
12	817263	Allison	Jackie	F	23	\$	7,100.00	0.98	F

Grade Table

GPA	Grade
0.00	F
1.00	D-
1.25	D
1.75	D+
2.00	C-
2.25	C
2.75	C+
3.00	B-
3.25	B
3.50	B+
3.90	A-
4.00	A
4.25	A+