ISYS 520 Final Project: BHS Financials

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Executive Summary

For my final VBA project I put my skills to use for the most demanding and critical of all possible audiences; my very own mother. My mom is charge of the finances for the PTA of the local high school my siblings attend, and when she complained of the difficulty of dealing with the spreadsheets she had to keep a record of all the PTAs financial transactions, I decided to step in and help out. For my project I restructured the financial spreadsheets, and created a set of forms that could be used to input and edit the financial transactions of the organization. Where before the process of entering new financial data had been tedious and had required entering the same data repeatedly in different places and different ways, I automated those processes and also created safeguards to make sure that the data was input correctly.

Implementation and documentation

My first task in this project was organizing and restructuring the existing financial spreadsheets. The workbook that I received was a horrible Frankenstein monster that had come into existence from years of being passed around between people who obviously had no idea how excel works, but hadn't let something like that stop them from adding things to the workbook anyways. I was able to whittle down the 20+ sheets until finally I got 5 sheets that I felt captured the basic functionality needed for the PTA financial records. I then did my best to remove all the redundancies and formatting errors from the sheets and restructured them look nicer, be much less confusing, and have consistent formatting.

The five sheets of the workbook are shown below. (Note- an important requirement for many of the sheets was that they remain in an aspect where they would readily print portrait style on to one page, which is why they are formatted as such.)

Brighton High PTA

Financial Report 12/6/2012

	2012-13 Approved	2012-13 Actual	
Income			
Lifetouch Photos			
Membership Dues	$ 1,512.00	$1,771.97	
Donations	$ 3,336.00	$ 419.53	
Sales Tax Refund	$ -		
Region monies-Graduation			
Total	**$ 4,848.00**	**$ 2,191.50**	
Expenditures:			**Balance**
PTC Lunches	$ 1,800.00		$ 1,800.00
Holiday Teacher Lunch	$ 50.00		$ 50.00
Teacher Awards	$ 225.00	$ 122.12	$ 102.88
Teacher Appreciation	$ 500.00		$ 500.00
Teacher B days	$ 75.00		$ 75.00
Teacher Gift	$ 300.00		$ 300.00
NAMI	$ 100.00	$ 34.51	$ 65.49
Liability Insurance	$ 320.00		$ 320.00
PTSA Training	$ 260.00		$ 260.00
Reflections	$ 100.00		$ 100.00
Magnets	$ 927.00		$ 927.00
Student Relations	$ 150.00	$ 755.00	$ (605.00)
Student "You Got Caught Award"	$ 300.00		$ 300.00
Student Fundraiser	$ 300.00		$ 300.00
Projects	$ 200.00		$ 200.00
Graduation			
PTA dues	$ 918.00		
Council dues			
Totals	**$ 6,525.00**	**$ 911.63**	**4,695.37**
Income less Expenditures	-$1,677.00	$1,279.87	
Current Bk Balance	$7,968.16		

Brighton High PTA

Year-End Financial Report

2012-2013

Balance Forward:	(as of 8/31/2012)	$ 6,688.29
Annual Revenue:		
Lifetouch Photos		$ -
Membership Dues		$ 1,448.17
Donations		$ 365.23
Sales Tax Refund		$ -
Region monies-Graduation		$ -
Total 2012/13 Revenue		$ 1,813.40
Expenses:		
PTC Lunches		$ -
Holiday Teacher Lunch		$ -
Teacher Awards		$ 122.12
Teacher Appreciation		$ -
Teacher B days		$ -
Teacher Gift		$ -
NAMI		$ 34.51
Liability Insurance		$ -
PTSA Training		$ -
Reflections		$ -
Magnets		$ -
Student Relations		$ 750.00
Student "You Got Caught Award"		$ -
Student Fundraiser		$ -
Projects		$ -
Graduation		$ -
PTA dues		$ -
Council dues		$ -
Total Expenditures		**$ 906.63**
Ending Balance		**$ 7,595.06**

Brighton High PTA

Expense Report

12/6/2012

Expense Category	Date	Check #	Description	Amount
PTC Lunches				
Holiday Teacher Lunch				
Teacher Awards	11/12/2012	1714	Teacher day awards	$ 122.12
Teacher Appreciation				
Teacher B days				
Teacher Gift				
NAMI	11/15/2012	1715	NAMI Dues	$ 34.51
Liability Insurance				
PTSA Training				
Reflections				
Magnets				
Student Relations	10/30/2012	1713	Halloween party	$ 750.00
Student "You Got Caught Award"				
Student Fundraiser				
Projects				
Graduation				
PTA dues				
Council dues				
Total Expenses				**$ 906.63**

Brighton High PTA

Income Register

12/6/2012

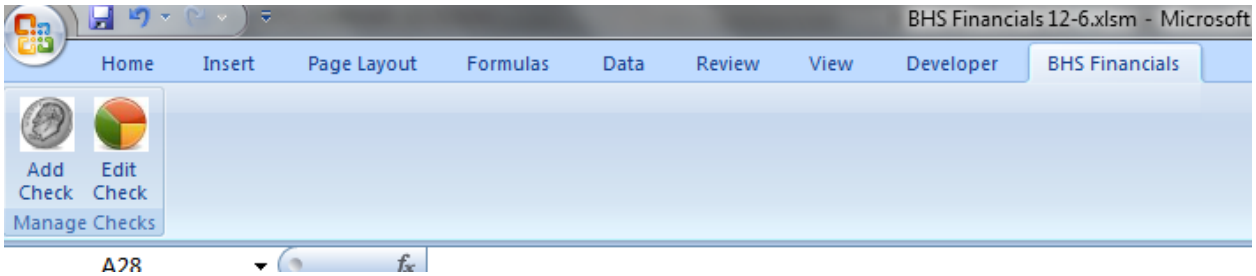
Income Source	Date	Description	Amount Rec'd
Lifetouch Photos			
Membership Dues	11/18/2012	Fall period dues	$ 1,448.17
	11/19/2012	Late dues	$ 323.80
Donations	10/23/2012	Birthday Donations	$ 365.23
	11/12/2012	Lauren Mckell	$ 54.30
Sales Tax Refund			
Region monies-Graduation			
Total Income			$ 2,191.50

BHS CHECK REGISTER '12- '13

11/9/2012

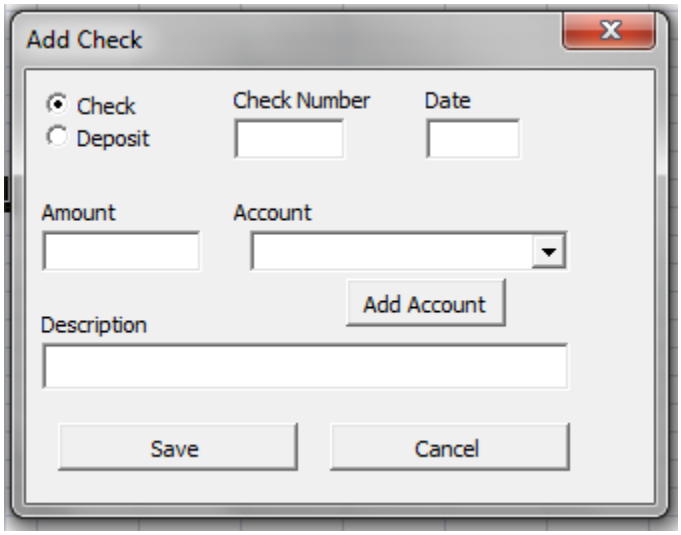
Num,	Date	Description	Acct	Check CK Amoun	Deposit D Amount	Balance
	12-Oct	Starting Balance				$ 6,688.29
Deposit	23-Oct	Birthday Donations	Donations		$ 365.23	$ 7,053.52
1713	30-Oct	Halloween Party	Student Relations	$ 755.00		$ 6,298.52
Deposit	12-Nov	Lauren Mckell	Donations		$ 54.30	$ 6,352.82
1714	12-Nov	Teacher day awards	Teacher Awards	$ 122.12		$ 6,230.70
1715	15-Nov	NAMI Dues	NAMI	$ 34.51		$6,196.19
Deposit	18-Nov	Fall period dues	Membership Dues		#######	$7,644.36
Deposit	19-Nov	Late dues	Membership Dues		$ 323.80	$7,968.16

In the ribbon I built buttons using the ribbon wizard that initiate two different form; to add a new check and to edit an existing check.



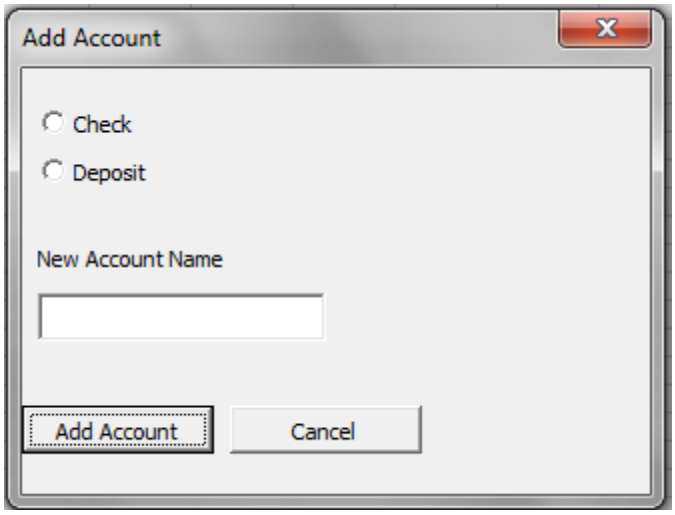
Addcheck

The form to add a new check comprises most of the basic functionality of this program. By clicking the add check button one is able to enter transactions, and update the entire set of financial sheets thereby.

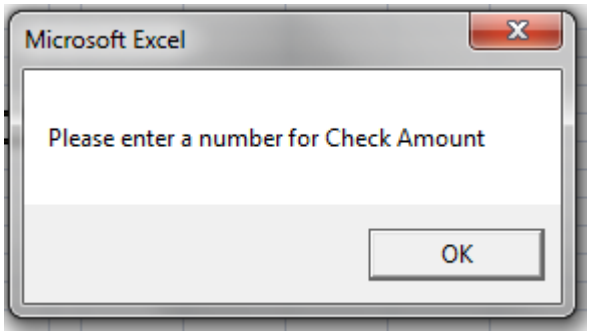


The addcheck form is used to record both actual checks and deposits. The form has a deposit and check option button, and if either are selected they change a few things in the form. If deposit is selected a sub procedure runs which updates the combo box from a list of account options to select for deposit accounts. The check number field is also filled with the word “Deposit”, because deposits do not require check numbers. Selecting the check button has a similar functionality, and fills the combo box with possible accounts for expenditures, leaving the check number box empty.

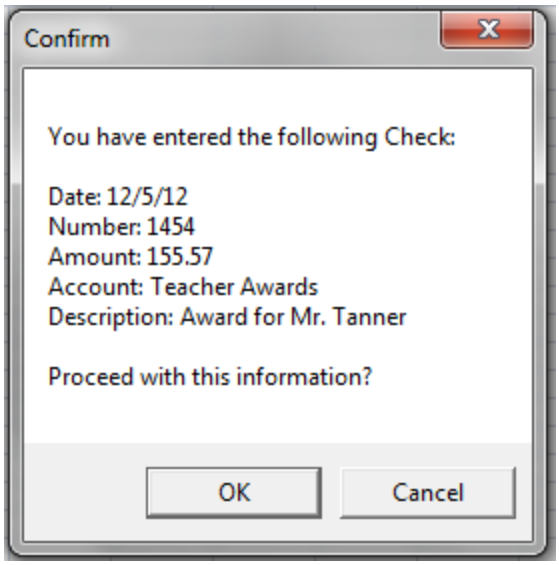
The add account button is linked to another form, which if the user clicks it allows for inputting another account option for either deposit or check. The variable input for the new account name is then added to the corresponding list of accounts once the user clicks the add account button.



Upon a user clicking save on the add check form a variety of tests are run on the variables input to make sure that they are valid. The amount and check number variables are checked to see if they fit the numeric standards, while all other areas are tested to make sure simply that values have indeed been input. If there is any variable that doesn't have a correct data type inputted, then when save is pressed there is a message box that is shown with the specific problem, and the user is then referred back to the form to change the data.



If all the data fields are entered correctly, then a message box is displayed that gives a summary of the record that they want to create, and gives them a chance to double check what they have entered. If the user presses the no button then they are taken back to the addCheck form. If the user selects yes (the summary is correct) then the data is written onto the various spreadsheets.



The data is written to the check register, to the budget sheet, and also to either the expenses or income sheet depending on if it was a check or deposit (different sheets but with basically the same code)

Check Register-

The different variables are simply pegged to the corresponding cells in the next open row

General Budget-

The sub procedure searches for the corresponding account and adds the new amount to the existing balance

Expense or Income register-

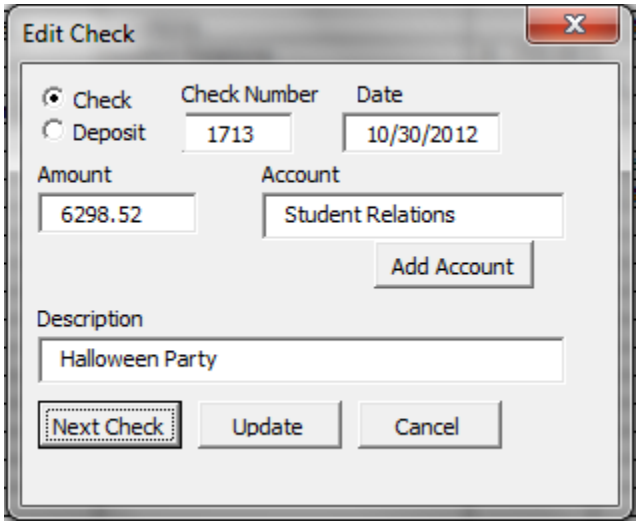
The sub procedure finds the section for the specific account of the transaction, and adds a new entry. If there is an open space it just adds it in, if not then it simply creates a new row.

Year-end Financial statement-

This sheet is actually updated outside of VBA, simple excel functions grab the updated numbers from the other sheets and do the trick here.

Edit check

The edit check form is actually very comparable to the form used for the in class userforms assignment. Upon initialization the form pulls the data from the active row in the check registry sheet(or top row if none selected) and displays it in a form similar to addform. The user can then iterate across the different check and deposit entries.



When edited and updated the sub first displays a message box asking the user if they are sure they want to make this edit, and then if the user responds true, the new values are written back into the check register.

Learning and conceptual difficulties encountered

One issue that came up for me the first time with this program was that of scope creep. In making this program I thought of so many things that I had learned about in the class that I thought would be super exciting to put into this spreadsheet, and I actually started on the path to implementing many of them. I realized however, as I was going along, that many of these features I had thought of really didn't contribute anything to the basic functionality of my program, and also, they made things a lot more complicated than they really needed to be.

It also really helped for me to remember that this spreadsheet was to end up being used by my mom, and it needed to be something she could understand and not have too much problem manipulating.

As far as programming difficulties that I encountered, probably all the main things that stumped me were from just not knowing how to structure an approach to a problem. Once I knew how I wanted to do something I could figure it out, but knowing the best way to do it was often the issue. This helped me learn the value of planning out a comprehensive approach beforehand, and how if you just program by the seat of your pants sometimes you can end up in a hard spot.

Assistance

For this project I received assistance from 1) my mom, who helped me understand how she uses the workbook 2) Professor Gove Allen, who's excel ribbon wizard I used, and 3) the internet, which helped me understand various coding problems I had along the way. I however did not receive any substantial help from anyone in person.