

Executive Summary: Final Project

Description of the Problem:

The project I created was made for the elections office in Idaho Falls. For every election, the manager has to create a list of responsibilities for each of her employees to accomplish during the times before, during, and after the election. In the past, she has tried to do this by referencing certain cells on a master list. However, this has caused a few different issues for her when creating her employee task sheets. If she ever needed to add something to the master list, she would add it to the bottom of the list. When she did this, the list would no longer be alphabetized, and if she re-sorted all of the responsibilities on the master list, it would ruin all of the task sheets she had already created due to the way she was referencing cells.

To solve this problem, she stopped sorting them alphabetically, but she then found that she would duplicate responsibilities on the master list because they were located in different areas. This led to more inefficiency when delegating tasks, and ultimately it led to a master list that was very difficult to maintain and to understand.

Implementation and Documentation:

To solve this problem, and help this organization be more efficient, I worked closely with the elections office manager to solve the problems she was having with the master list primarily through the use of a series of user forms.

User Forms:

The first thing I did was create a user form that would allow the user to more efficiently assign various duties to his or her employees. This form will automatically alphabetize all the duties on the master list when it is initialized. It will then populate the 5 combo boxes with their respective tasks from the master list. The user is then able to scroll through the various combo boxes and assign the tasks to whichever

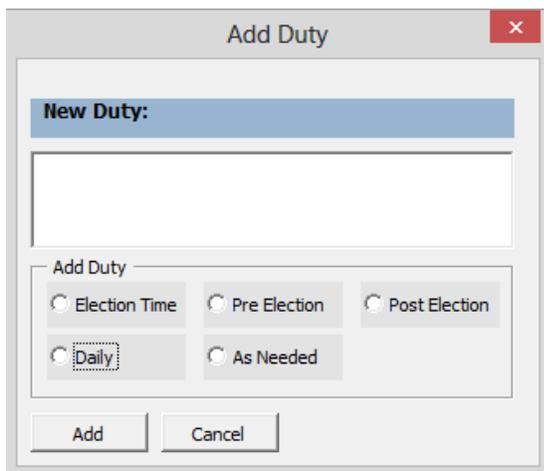
The screenshot shows a window titled "Assigning New Duties" with a close button (X) in the top right corner. The window contains the following elements:

- Election Time:** A dropdown menu with "Arrange for Cars" selected.
- Pre Election:** An empty dropdown menu.
- Post Election:** A dropdown menu with "Election Day Registration Totals (by precinct, election, total for county)" selected.
- Daily:** A dropdown menu with "Deaths" selected.
- As Needed:** An empty dropdown menu.
- Assign To:** A section with a blue header. Below it is the label "Employee" and a row of six radio buttons: Penny (selected), Brenda, Helena, Michele, Betsy, and Lisa.
- Buttons:** A row of buttons at the bottom: Assign, Add, Remove, Refresh, OK, and Cancel.

Form #1: Better enables the manager to assign duties to her employees

employee he or she chooses simply by marking the specific employee in employee frame box.

After clicking the “Assign” button in the left hand corner, any duties in the 5 combo boxes will be sent to a tab created for that specific employee with a checkbox for the employee to initial after they have completed the task. If no employee is checked, or if there are no combo boxes filled, a message box will pop up to inform the user of this. If in scrolling through the various combo boxes, the user discovers that a specific duty is not listed, he or she can click the “Add” button at the bottom of this form which will initialize a different user form. Additionally, when the user assigns responsibilities to the employees, it will automatically alphabetize the employee’s responsibilities on his or her task sheet, and it will automatically auto-fit the responsibilities to the employee’s task sheet so that the manager can print out these forms without any additional formatting.



Form #2: Enables the user to easily add new duties to the master list without compromising its structure or organization.

The second form I created is the “Add Duty” form, and it enables the user to add new tasks to the master list without compromising the integrity of the master list. When the user adds new duties to the master list, it will automatically alphabetize them to solve the problem they were previously having of duplicating responsibilities on the master list. The user can also designate to which time frame he or she would like to designate the task. This solves another problem they were having. In the past they had one long list that was color coded by time frame. It was very confusing. They can now clearly designate and see to when they designate new tasks.

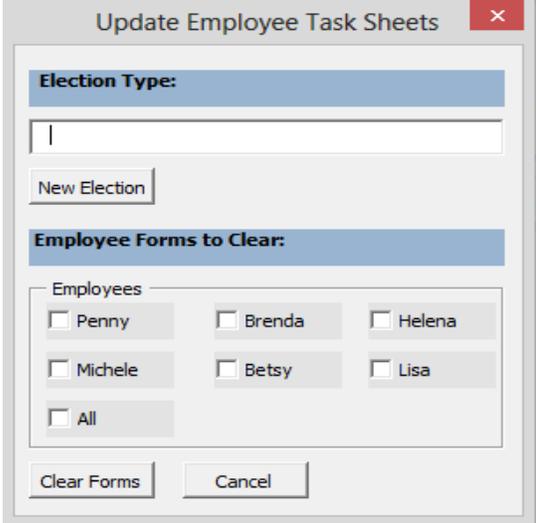
Similar to the previous form, if no duty is entered into this form, or if no option is selected, a message box will inform the user of this. This prevents the user from entering blank cells into the master list, and it prevents the user from thinking they added new tasks to find that it didn’t save to the master list. When the user then switches back to the “Assigning New Duties” form, the combo boxes will repopulate with all of the correct information in alphabetical order.

Additionally, all of the labels for the combo boxes, the captions on and check boxes, and the captions with any option boxes can be modified by the user. The elections office is set up in such a way, that they will never have, nor need, more than 6 employees. However, as there is employee turnover, as there is in any company, the user of these forms can change the

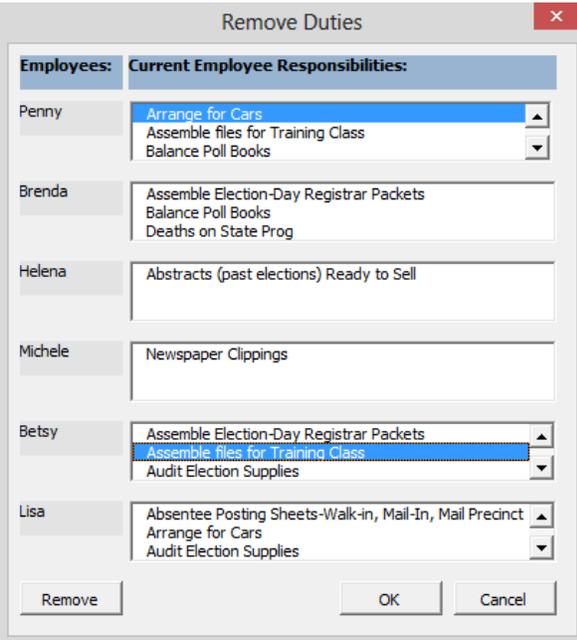
employee names on any of the sheets and the user forms will reflect this change. This allows the company to continue to change over time.

The third user form I created enables the user to interact with the various employees task sheets. This form enables the user to essentially start from scratch for any or all employees and will be most useful if errors are made, or if they are creating worksheets for a new election. The top section of the form will create new forms for each of the employee and will appropriately title each form for the given election.

The bottom section of this form simply allows the user to clear the task sheets of either specific individuals or for all of the employees. It will then erase all of the data below the title and heading of the task sheet. Again, the user is able to modify the names on this user form and all others by changing the name of the employee's task sheet. This will enable this model to work for the organization as it changes and new employees are hired.



Form #3: Allows the user to interact with, and update, the various task sheets



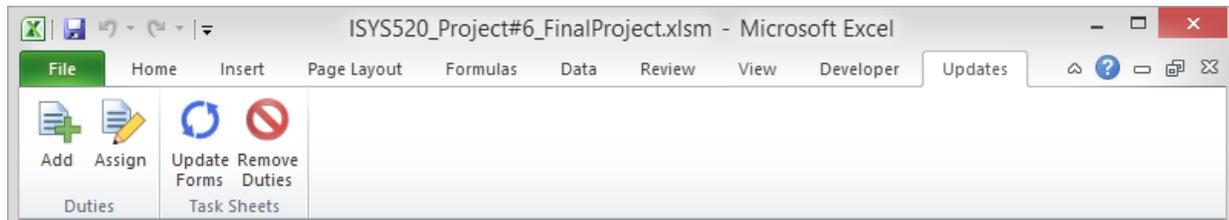
Form #4: Allows the user to compare and remove specific duties of employees.

The final form that I created for this business is pictured on the left. This form enables the user to view simultaneously all of the responsibilities he or she has delegated to each of the employees. This is possible because this form pulls from each of the individual employee task sheets all of the responsibilities that have currently been assigned to them. From this form, the user can delete any specific responsibilities from any employees and their task sheets, and he or she can do so without destroying the integrity of the task sheets. This will further help to solve the problem they were having with assigning users the same tasks. There are times when it is appropriate to assign multiple individuals the same task in this business. However, the manager said that she wanted an

easy way to compare the responsibilities she had assigned, and be able to edit them and make changes. This form fulfilled that need. Additionally, within this form all of the assignments are alphabetized for an easy comparison.

Ribbon Buttons:

Finally, I created a new tab on the ribbon with four new buttons that will easily allow the user to access and use these forms no matter where they are working on the spreadsheet. The buttons are all appropriately named to bring up their corresponding forms in excel.



User Ribbon: Allows access to these forms from anywhere in the document.

What I learned:

I certainly encountered a few difficulties while completing this project, but there was nothing that I wasn't able to research and figure out. Some things certainly took longer for me to figure out than others, but I was able to overcome all of the difficulties I encountered while completing this project. For example, I previously had no real experience in creating list boxes and combo boxes. I needed to research how to add and both take away things from these. I wanted to allow the user to remove multiple items from the list boxes at the same time. I didn't know how to do this, but I did some research and learned that to do this you actually have to start at the bottom of the list box and work up. I also hadn't had much experience actually creating user forms, so it was good practice to experiment with the various options available to user forms.

I also learned how to have various sub procedures interact with each other much better. Many of the projects we have done in class required very little of having different sub procedures work together, and when we did need to have them work together, I always had a hard time understanding how it should work. With this project it was good to take it from inception to completion so that I could see how all of the working parts worked together.

I think that above all I learned patience. There were several times, when I could not find what was wrong with my code. It was running fine, and it wasn't giving me any clear errors. However, it wasn't running correctly. I learned more about how to step through my code and find out how and when variables are changing to find where the errors are occurring. I learned patience

in doing this process and not getting frustrated right away. But, it also helped me realize that I can figure it out on my own. It just takes time and patience.

Assistance:

In this project, I did not have substantial help from anyone. The only person I worked with was the manager of the elections office. She did not help me with my actual code at all. I simply worked with her to see what she wanted and to see how I could better fit this project to satisfy the needs of her organization.