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IS 520—MBA 614
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STUDENT INFORMATION SPREADSHEET AND LEDGER

Executive Summary

Mandalyn Academy is an Esthetics and Cosmetology school in American Fork, Utah. The academy offers three main programs to its students: Cosmetology, Basic Esthetics, and Master Esthetics. The school is relatively new and has fewer than 100 students. The programs are all growing rapidly, which causes a problem for the Director of Financial Aid who single-handedly takes care of all of the accounting and financial aid information for each student. The Director spends many hours every week entering information for new students and recording charges and payments for the students at the academy.

To help the Director with these repetitive tasks, I created a workbook that: (1) facilitates the entry of new student data, (2) creates and maintains an accounting ledger for each student, and (3) assists in the creation of a monthly report for the auditor. This workbook will potentially save the Director around ten hours per week as she will no longer be required to create ledgers or reports manually.

Implementation Documentation

Based on criteria given by the Director of Financial Aid and the academy's auditor, I created a spreadsheet that doubles as a main information sheet for each student and a monthly report that can be given to the auditors. Below is a screenshot of the master spreadsheet. This master spreadsheet contains some cells that require manual data entry from forms handed in by the students, as well as information that will be gathered from the following three separate userforms I created for this project: (1) Create New Student, (2) Add Transaction, and (3) Add Charge.

The screenshot shows a Microsoft Excel spreadsheet titled 'zzzCosmo Master'. The spreadsheet is organized into columns A through I. The first few rows contain student identification and contact information. Rows 6 through 16 contain various dates, hours, and financial aid details. Rows 17 through 22 contain a summary of attendance and payment progress. The bottom of the screen shows the Excel ribbon with the 'Formulas' tab selected.

| | A | B | C | D | E | F | G | H | I |
|----|-------------------------------|----------------|-------------------------|-----------------|----------------|----------------|----------------|-----------------|---------------|
| 1 | COSMETOLOGY | | | Dep or Indep: | | Entrance Cnsl | MPN Date | Exit Counseling | |
| 2 | Student Name: | | | Gender: | | | | Notified: | |
| 3 | Email: | | | Race: | | Status Rpt In? | Yes/No | Completed: | |
| 4 | Phone Number: | | | | NSLDS Results: | | | State of Res: | |
| 5 | | | | | | | | | |
| 6 | Contract Date - Original | | Contract Date - Updated | | | | Financial Aid? | | W/Parent? |
| 7 | Start Date | | Target Graduation Date | | | | FAFSA 15/16 | | Yes/No |
| 8 | Hours per Week | | Hours-6/30/15 | | Hours-6/30/16 | | EFC 15/16 | | Marital Stat? |
| 9 | Total Hours Required | | 1st Time? | | Full Time? | | Verification? | | |
| 10 | Input Form Date | | Input Form #2 | | Input Form #3 | | FAFSA 16/17 | | Yes/No |
| 11 | Expected Disbursement Dates | 1st (start+30) | 2nd (451 Hours) | 3rd (901 Hours) | 4th (1250 Hrs) | | EFC 16/17 | | Marital Stat? |
| 12 | (from Input Form) | | | | | | Verification? | | |
| 13 | Award Letter Received | | Award #2 | | Award #3 | | FAFSA 17/18 | | Yes/No |
| 14 | Minimum Attendance in Weeks | 1 AY Period 1 | 1 AY Period 2 | 2 AY Period 1 | 2 AY Period 2 | | EFC 17/18 | | Marital Stat? |
| 15 | (per Award Letter) | | | | | | Verification? | | |
| 16 | | | | | | | | | |
| 17 | Hours Attended to Date | 120.00 | # of Hours | | Ave Hrs/Week | 0.00 | HSD/GED/Hme | | |
| 18 | # of Weeks Attended to Date | 17 | # of LOA Wks: | 0.00 | | | HSD Flag? | Yes/No/NA | |
| 19 | Payment Periods | 450 Hours | 900 Hours | 1250 Hours | 1600 Hours | | Name of HS: | | |
| 20 | Date Completed Payment Period | | | | | | LDA (MM/YY): | | |
| 21 | # of Weeks to Complete Period | | | | | | VA? | Yes/No | |
| 22 | Making Satisfactory Progress? | | | | | | Self/Spse/Dp | | |

Figure 1: Master Spreadsheet

Create New Student. This userform will be used to enter information such as the program the student is entering, student name, email, phone number, birthdate, social security number, race, gender, contract date, start date, hours per week that will be attended, total hours required to graduate, and tax status (dependent or independent). After this information has been entered, the form will do the following:

- Validate and format the dates that have been entered
- Check to see if a worksheet has already been created for that student in that program
- Create a new worksheet or advise that the student already has a worksheet
- Enter all but two of the fields into their respective fields on the new spreadsheet, and
- Enter the birthdate and social security number onto a separate worksheet

Once the new form has been created, the Director will be able to make any changes or updates necessary without any issues.

The screenshot shows a userform titled "Create New Student Sheet" with a close button (X) in the top right corner. The form is organized into two columns of input fields. The left column contains: "Program:" (a dropdown menu), "Student Name:" (a text box), "Email:" (a text box), "Phone Number:" (a text box), "Dep/Ind:" (a dropdown menu), "Gender:" (a dropdown menu), "Race:" (a text box), "Birthdate:" (a text box), and "SSN:" (a text box). The right column contains: "Contract Date:" (a text box), "Start Date:" (a text box), "Hours per Week:" (a text box), and "Total Hrs Req:" (a text box). At the bottom right of the form are two buttons: "OK" and "Cancel".

Figure 2: Create New Student userform

Make a Payment. This userform facilitates the creation and maintenance of an individual student ledger. Once a main information sheet has been created for a student, the Director will be able to click on the "Add Transaction" button on the "Students" tab and create a new transaction for that student. This userform will do/ask for the following:

- Automatically insert the student's name based on their main sheet (or on their ledger if the ledger has already been created)
- Automatically insert today's date
- Ask for the payment method using a dropdown combo box
- Ask for the description of the payment method if "Other" is selected
- Remind the Director to input payment amounts as a negative number
- Ask for the date of the transaction

Once all of the above information has been entered into the form and the Director has clicked "Ok," the form will then:

- Validate and format the transaction date

- Check to see if that student already has a ledger for the program specified on their main info sheet
- Create a new ledger sheet if that student does not already have one (Appendix)
- Input the transaction information on the next available line on the ledger
- Format the amount to currency, and
- Automatically sum the amount column to keep a running total on that ledger

*Figure 3:
Add
Transaction
userform*

Add a Charge. This userform also facilitates the creation and maintenance of an individual student ledger. Once a main information sheet has been created for a student, the Director will be able to click on the “Add Charge” button on the “Students” tab and add a new charge for that student. This userform will do/ask for the following:

- Automatically insert the student’s name based on their main sheet (or on their ledger if the ledger has already been created)
- Automatically insert today’s date
- Ask for the type of charge using a dropdown combo box
- Ask for the description of the charge if “Other” is selected
- Ask for the date of the charge, and
- Ask for the amount of the charge

Figure 4: Add Charge userform

Once all of the above information has been entered into the form and the Director has clicked “Ok,” the form will then:

- Validate and format the charge date
- Check to see if that student already has a ledger for the program specified on their main info sheet

- Create a new ledger sheet if that student does not already have one (Appendix)
- Input the charge information on the next available line on the ledger
- Format the amount to currency, and
- Automatically sum the amount column to keep a running total on that ledger

Other Buttons on the “Students” Tab and Additional Information. The “Students” tab on the ribbon contains three buttons in addition to the three buttons mentioned previously (Add Transaction, Add Charge, Create New Student) and those button are (1) Recalculate, (2) Alphabetize, and (3) Amt Refunded.

- (1) The recalculate button, when clicked, is coded to go through the ledger and recalculate the running total, row by row, when a change is made to any of the amounts—whether due to data entry error or any other error.
- (2) The Alphabetize button, when clicked, is coded to alphabetize all of the sheets in the workbook. It takes the active sheet and compares its name to the names of the sheets adjacent to it and then puts it where it is supposed to be. In the end, all of the sheets are in alphabetical order and the active sheet when the button was pressed remains the active sheet.
- (3) The Amt Refunded button, when clicked, calculates the amount of money that has been disbursed to a student and records it on their main info sheet. It loops through the rows on the active ledger sheet and sums up all of the amounts where the charge described was a “Disbursement.” The amount refunded cell on the main sheet is then used in the calculation of the student’s current balance.

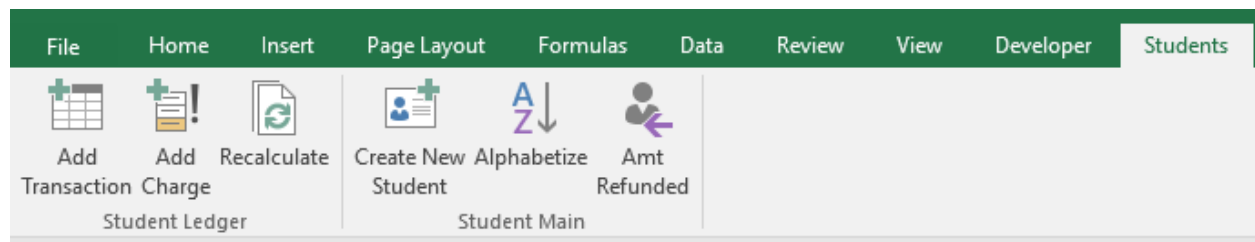


Figure 5: Students Tab

In addition to the userforms and buttons mentioned above, I hardcoded some formulas into the main info sheet that will assist in calculating the student’s current balance, as well as in calculating information regarding the amount of time the student has been attending the academy and how many hours they still have before they can graduate. These fields are highlighted in yellow in second screenshot in the appendix. Also, because this workbook contains highly sensitive information, some of the sheets are locked and the workbook is password protected. However, for the sake of uploading this project in a viewable form, I have removed the password protection from the workbook and have removed all sensitive data.

Discussion of Learning and Conceptual Difficulties Encountered

One of the biggest things I learned while doing this project was that having another person go over the project with me is crucial. Several times throughout the project I thought I had written the code well and thought of all of the different exceptions that may come up, but as soon as I sat down with someone else and described what the form was supposed to do, they came up with

something I hadn't thought about. This was both frustrating and helpful because I then had to go back into the code and figure out how I could still make everything work while including a way to counter/account for the possible exception that person had brought to my attention. Another major lesson I learned is that Google can be your best friend while you are trying to code, but it can also cause you to waste a lot of time. There were many times I wasn't quite sure how to do something, so I turned to Google to see if I could find the answer. I learned that if you don't ask the right question, you can spend hours searching for the wrong answer.

One concept that took me a long time to understand was how to alphabetize the sheets. I spent a couple of hours trying to figure out how to do it by myself, but then ended up going to Google and searching for an answer. I found some code online that I inserted into my project and then spent a long time trying to understand. I finally figured out what the code was doing and was able to customize the code to better fit my project. Another difficulty I encountered was how to figure out if a sheet with a specific name already existed. I talked to a friend about this one and then had an epiphany and decided to just write a function that would do it, and then reference that function in my code.

An element of this project that I wanted to include, but did not have time to figure out how to do, was create a macro that would log on to the Department of Education website, pull a FAFSA verification file, and then—given information about a student—verify the student and their financial aid. This is something I still plan to do for the Director, but was beyond the time scope for this project.

Another element that I looked at and could not get to work, was a function to count how many weeks, days, and hours a student had attended the academy—taking out weekends and holidays. I think this function would be very useful, but again, I spent a couple of hours on this, couldn't figure it out, and did not have the time to spend to figure it out for this project.

Assistance on Project

The only additional assistance I had on writing the code for this project was from Google.

Appendix

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
|----|---------------|------------|-----------------|---------------|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Student Name: | | Date of Report: | 4/7/2016 | COSMETOLOGY | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | Date | Pmt Method | Charge | Amount | Running Total | | | | | | | | | | | | | |
| 4 | 4/7/2016 | Check | | \$ (2,500.00) | \$ (2,500.00) | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
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| 22 | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | |

Figure 6: Screenshot of Student Ledger

| | A | B | C | D | E | F | G | H | I |
|----|-----------------------------------|-------------|---------------|-----------------|--------------|--------------|-------------------------|---------------|-----------|
| 17 | Hours Attended to Date | 120.00 | # of Hours | | Ave Hrs/Week | 0.00 | HSD/GED/Hme | | |
| 18 | # of Weeks Attended to Date | -6049.8 | # of LOA Wks: | 0.00 | -6049.80 | | HSD Flag? | Yes/No/NA | |
| 19 | Payment Periods | 450 Hours | 900 Hours | 1250 Hours | 1600 Hours | | Name of HS: | | |
| 20 | Date Completed Payment Period | | | | | | LDA (MM/YY): | | |
| 21 | # of Weeks to Complete Period | | | | | | VA? | Yes/No | |
| 22 | Making Satisfactory Progress? | | | | | | Self/Spse/Dp | | |
| 23 | | | | | | | | | |
| 24 | Grants/Loans Awarded | 1-450 Hours | Amt Received | 451-900 Hours | Amt Received | 901-1250 Hrs | Amt Received | 1251-1600 Hrs | Amt Rec'd |
| 25 | Pell Grant | | | | | | | | |
| 26 | Direct Subsidized Stafford Loan | | | | | | | | |
| 27 | Direct Unsubsidized Stafford Loan | | | | | | | | |
| 28 | Total Amount Awarded/Received | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 29 | Grand Total Awarded/Received | \$0.00 | \$0.00 | | | | | | |
| 30 | | | | | | | | | |
| 31 | Total Cost of Tuition | \$0.00 | | Tuition Invoice | Charged | N/C | Expected Payments 15/16 | 16/17 | |
| 32 | Discounts Given (-) | | | #1 | | | Student | | |
| 33 | Amount Paid by Student (-) | | | #2 | | | TFC | | |
| 34 | Fed'l Amounts Received to Date | \$0.00 | | #3 | | | FA | | |
| 35 | Refunded to Student (+) | | | #4 | | | Lender | | |
| 36 | Total Balance Pending | \$0.00 | | #5 | | | ASD | | |
| 37 | Tuition Not Yet Charged | \$0.00 | | Subtotal | \$0.00 | \$0.00 | Other(VA,Voc) | | |
| 38 | Current Balance | \$0.00 | | Total Invoices | \$0.00 | | Total per Year | | |

Figure 7: Hardcoded formula cells on main student info sheet