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## Program to Track Employee Performance in a Call Center

Executive Summary

My sister is a supervisor in a call center for a security company. Employees in her department are evaluated and coached weekly as an initiative to improve customer service. The evaluations are based on showing up to work each day, clocking in and out at proper times, number of calls put on hold, number of calls answered, graded reports for randomly selected calls, etc. Each Supervisor has a team of 20 employees. My sister's biggest concern is that she can easily keep track of each employee's improvement week to week so that she can be well aware of areas of concern and achievement for each person. Right now, my sister manually copies and pastes information for data downloaded from AVAYA, KRONOS, and CMS Applications into one summary worksheet.

I offered to build her a program that will take care of updating the master sheet each week once the necessary data is downloaded. The program analyzes different worksheets individually then summarizes specific data in the master sheet. Not only will updating the master sheet take only seconds compared to hours, the user can easily see where the areas of improvement and achievement are based on color coded cells corresponding to previously set standards.

Implementation

The Final Workbook contains five worksheets from which information is analyzed, gathered, and consolidated. The first sheet, labeled "BeginPrep" is the layout of what needs to be accomplished before a proper coaching session can happen between the employee and supervisor at the week's end. There are five buttons on this first sheet which allows each task to be completed.
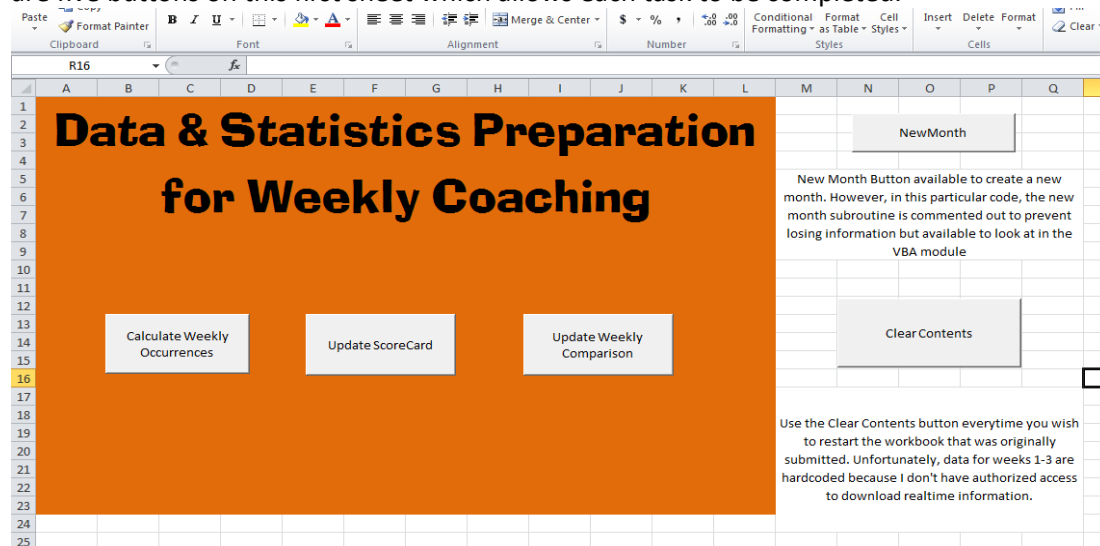
The first button in the "BeginPrep" worksheet is called "Calculate Weekly Occurrences." Occurrences are monitored weekly and if any employee receives three or more occurrences within a week, it is grounds for automatic dismissal from the company. Occurrences are received for clocking in late (even one second after the scheduled start time is late), clocking out early, taking a lunch break longer than 45 minutes, or any other reason a supervisor may deem valid. To calculate occurrences for the week, the supervisor downloads a data sheet from the company's AVAYA database and it shows up in a layout in

the worksheet labeled "TimeClock." An example of the layout is pictured below.

EMPLOYEE	Agent ID	Shift Start	Shift End	Clock In	Occurrence	Clock Out	Occurrence	Lunch In	Lunch Out	Time	Occurrence
Blazestone	82844	7:40:00	16:40:00	7:37:31		16:42:24		12:30:00	13:15:00	0.0312500	
Blitzerman	87640	8:00:00	17:00:00	7:58:49		16:57:33		12:30:00	13:15:00	0.0312500	
Bomb Voyage	20619	7:40:00	16:40:00	7:36:30		16:42:03		12:29:58	13:15:00	0.0312731	
Dash	38108	7:00:00	16:00:00	7:01:44		16:00:05		12:00:00	12:45:00	0.0312500	
Dynaguy	46372	7:40:00	16:40:00	7:38:49		16:45:22		12:30:00	13:15:00	0.0312500	
Edna Mode	22941	7:20:00	16:20:00	7:20:04		16:24:30		12:00:00	12:49:08	0.0341204	
ElastiGirl	63236	7:00:00	16:00:00	6:58:47		16:05:03		12:00:00	12:45:00	0.0312500	
Everseer	20811	7:40:00	16:40:00	7:39:03		16:28:33		12:30:00	13:15:00	0.0312500	
Fironic	89345	8:00:00	17:00:00	7:59:59		17:00:23		12:30:00	13:15:00	0.0312500	

There are open columns for supervisors to calculate whether or not an employee has earned an occurrence. The data sheet is a record of the start and end times of each shift, the times employees actually logged in to their phones and times the employees logged out for lunch. The program checks the clock in and out times and compares them to appropriate shift time for each employee. If an employee was late or left early, the corresponding cell will return "yes" and be colored red to alert the supervisor. If a lunch break was greater than 45 minutes, the same result occurs as displayed here. Once times are evaluated, the program prints out a list of names of the employees who have an occurrence and those names as well as the reason

	A	B	C	D	E	F	G	H	I	J	K	L
	EMPLOYEE	Agent ID	Shift Start	Shift End	Clock In	Occurrence	Clock Out	Occurrence	Lunch In	Lunch Out	Time	Occurrence
	Blazestone	82844	7:40:00	16:40:00	7:37:31	NO	16:42:24	NO	12:30:00	13:15:00	0.0312500	NO
	Blitzerman	87640	8:00:00	17:00:00	7:58:49	NO	16:57:33	YES	12:30:00	13:15:00	0.0312500	NO
	Bomb Voyage	20619	7:40:00	16:40:00	7:36:30	NO	16:42:03	NO	12:29:58	13:15:00	0.0312731	YES
	Dash	38108	7:00:00	16:00:00	7:01:44	YES	16:00:05	NO	12:00:00	12:45:00	0.0312500	NO
	Dynaguy	46372	7:40:00	16:40:00	7:38:49	NO	16:45:22	NO	12:30:00	13:15:00	0.0312500	NO
	Edna Mode	22941	7:20:00	16:20:00	7:20:04	YES	16:24:30	NO	12:00:00	12:49:08	0.0341204	YES
	ElastiGirl	63236	7:00:00	16:00:00	6:58:47	NO	16:05:03	NO	12:00:00	12:45:00	0.0312500	NO
	Everseer	20811	7:40:00	16:40:00	7:39:03	NO	16:28:33	YES	12:30:00	13:15:00	0.0312500	NO
	Fironic	89345	8:00:00	17:00:00	7:59:59	NO	17:00:23	NO	12:30:00	13:15:00	0.0312500	NO
	Frozone	98476	7:20:00	16:20:00	7:25:49	YES	16:21:19	NO	12:00:00	12:45:00	0.0312500	NO
	Gamma Jack	66202	8:00:00	17:00:00	7:57:03	NO	17:01:01	NO	12:30:00	13:15:00	0.0312500	NO
	Gazerbeam	48565	7:20:00	16:20:00	7:18:54	NO	16:21:00	NO	12:00:00	12:44:00	0.0305556	NO
	Hyper Shock	70748	8:00:00	17:00:00	7:47:20	NO	17:02:23	NO	12:30:00	13:15:29	0.0317014	YES

are printed on the next worksheet labeled "Occurrences." The program then performs a "countif" function on the names to determine whether or not an employee has more than one occurrence from that sample. If so, the program will highlight the name and number of occurrences to alert the supervisor of who needs attention in that area in order to help the employee avoid future occurrences and possibly termination from the company.

The Next button on the "BeginPrep" worksheet is "Update Scorecard." This button works with the "Scorecard Grade" worksheet. The purpose of this part of the program is to bring attention to the supervisor of which employees are exceling at customer service over the phone. A quality department within the company selects one random phone for every employee each week. The phone call is then graded based on criteria set to determine whether the service rendered was acceptable. Once the call is evaluated, the supervisor receives an email including the grade and card and the supervisor has to manually update the grades into this worksheet. This worksheet is only necessary at the end of the month when the supervisor is in need of the grade average for each employee. Based on a key table in the worksheet, the program assigns numerical values to the grades and averages those values for an overall numerical score for each month. A "C" call is a phone call that has no exceptional qualities about it, but neither has anything wrong with it, it's

EMPLOYEE	Week 1	Week 2	Week 3	Week 4	Average
			November		
Blazestone	A-	B+	B-	A-	7.50
Blitzerman	B-	B	C-	B	6.75
Bomb Voyage	C-	B-	B+	B-	6.50
Dash	D	C+	C+	B-	5.88
Dynaguy	C+	C+	C	C	6.25
Edna Mode	B-	C+	B-	C	6.38
ElastiGirl	B	B-	B-	B+	6.63
Everseer	B+	B	B+	B+	6.63
Fironic	C+	C+	C	B-	6.25
Frozone	B+	A-	B-	B+	7.00
Gamma Jack	B-	C+	A-	B+	6.88
Gazerbeam	A-	C+	C+	B-	6.88
Hyper Shock	B+	B	B	C+	6.63
Jack-Jack	B+	A-	A-	A-	8.00
Meta-Man	B+	B+	A-	B	7.13
Mirage	C-	B-	B-	B+	6.50
Mr. Incredible	B	B+	C	B+	6.63
Omnidroid	B+	B+	B+	B+	6.50
Syndrome	B	C+	C-	B+	6.50
Violet	A-	A-	B-	B-	7.50
					6.74

Grade	Score
A+	10.0
A	9.0
A-	8.5
B+	8.0
B	7.0
B-	6.5
C+	6.0
C	5.5
C-	5.0
D+	4.0
D	3.0
D-	2.0
F	1.0

the average phone call so the score for a "C" grade is 5.5. The Customer Service department has a goal for each employee to average a score of 7 because it pushes employees to take initiative. The team's total and averaged for the supervisor to know how well her team is doing collectively.

The third button on the worksheet "BeginPrep" is "Update Weekly Comparison." It is with the push of this button that the program will consolidate specific information that each employee will be able to see for themselves at each coaching session on the worksheet "Weekly Comparison." This button looks up information from another previously downloaded worksheet of statistics from the company's AVAYA database. That data is labeled in the worksheet "Avaya Summary Download." The program then calls the data from this sheet, as well as that particular week's grade from worksheet "Scorecard Grade". Once the summary spreadsheet has completed the consolidation of information, then the program will again take that week's information and color the cells to bring attention to areas of achievement or

Employee	Agent ID	Answer Rate				Transfer Rate				Hold Percentage				ACW Percengtage				Project Percentage				ScoreCard Grade			
		Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4
Blazestone	82844	94%	77%	79%	88%	28%	20%	6%	26%	15%	11%	4%	16%	7%	12%	7%	5%	0.0%	0.0%	0.0%	0.0%	A-	B+	B-	A-
Blitzerman	87640	78%	96%	77%	93%	33%	30%	21%	24%	6%	12%	9%	10%	16%	6%	6%	11%	0.0%	0.0%	1.0%	0.0%	A-	A-	B-	B
Bomb Voyage	20619	95%	86%	97%	100%	13%	13%	11%	37%	5%	13%	14%	7%	10%	6%	10%	11%	0.0%	0.0%	0.0%	0.0%	A-	C+	C+	B-
Dash	38108	91%	81%	89%	87%	13%	22%	17%	29%	14%	7%	6%	8%	17%	13%	0%	11%	0.0%	0.0%	0.0%	0.0%	D	C+	C+	B-
Dynaguy	46372	100%	80%	95%	98%	13%	12%	7%	22%	6%	14%	14%	13%	4%	5%	9%	3%	0.0%	0.0%	0.0%	0.0%	B+	A-	A-	C
Edna Mode	22941	86%	97%	98%	78%	11%	12%	13%	42%	13%	8%	9%	10%	16%	16%	17%	10%	0.0%	0.0%	0.0%	0.0%	B-	C+	B-	C
ElastiGirl	63236	83%	89%	89%	93%	22%	11%	10%	38%	3%	6%	8%	13%	10%	12%	4%	0%	0.0%	0.0%	0.0%	0.0%	B-	B	C-	B+
Everseer	20811	85%	89%	94%	94%	17%	22%	21%	8%	14%	12%	11%	2%	14%	20%	3%	3%	0.0%	10.0%	0.0%	0.0%	B+	B+	A-	B+
Fironic	89345	89%	98%	98%	94%	22%	20%	18%	23%	14%	15%	14%	13%	9%	20%	19%	4%	0.0%	0.0%	0.0%	0.0%	B	C+	C-	B-
Frozone	98476	88%	86%	88%	93%	14%	30%	23%	30%	14%	13%	8%	10%	14%	6%	5%	7%	0.0%	0.0%	0.0%	0.7%	B	B-	B-	B+
Gamma Jack	66202	78%	88%	89%	94%	16%	17%	18%	25%	5%	2%	1300%	4%	3%	11%	13%	0%	0.0%	0.0%	0.0%	0.0%	C-	B-	B-	B+
Gazerbeam	48565	81%	82%	77%	94%	9%	25%	12%	21%	10%	9%	15%	9%	2%	7%	14%	2%	0.0%	0.0%	0.0%	0.0%	B+	B	B+	B
Hyper Shock	79748	86%	81%	85%	95%	11%	24%	10%	16%	8%	7%	4%	7%	3%	2%	16%	6%	0.0%	0.0%	0.0%	2.6%	B	B+	C	C+

Sheets: BeginPrep / TimeClock / Occurrences / Scorecard Grade / Avaya Summary Download / **Weekly Comparison**

improvement. The red color is a sign that the employee is struggling and needs to set specific goals to overcome that particular area. The yellow is a sign that although the employee isn't horrible in the particular area, there is room for improvement. Finally, the green cells signify that the employee is excelling in the area and should continue to perform at that level. Supervisors no longer need to go through the the workbook to copy and paste information into the summary sheet, this program saves a lot of time that can be used to discuss solutions of how to better employee performance in categories highlighted in the workbook.

The"clear contents" button on "BeginPrep" clears all of the information that the program inserted and returns the workbook to its original state. This is to help out the graders incase they may want to change any information and reperform the subroutines. In reality, the information for the previous weeks listed in "Weekly Comparison" is also referenced from previous workbooks. However, due to the nature of the business and not having the authority to download directly from the company's database, the values under the previous weeks are all hardcoded. Lastly the "New Month" button corresponds to a subroutine that will prompt "save as" and clear all of the information to create a clean workbook for future weeks to be compared in the same manner.

Learning and Conceptual Difficulties

The first set back for me was the inability to import the information directly from the actual source, the AVAYA, KRONOS, and CMS databases that this company uses. Being able to have this ability would've made the "real time" application very clear. However, I settled with duplicating a hardcode version of a sample worksheet that would otherwise have been imported from the databases was I actually using this program at the company.

Another issue I faced was in the "weekly comparison" worksheet. The first time I tried to color code the cells, the columns were turning only red or only yellow, instead of each cell within the column having its proper color. At first I thought the reason it was happening was because my arguments were including everything in the first if statement, so then it would end if prematurely instead of going through all the statements. After trying to rework the order multiple times, I tried using select case statements instead of if statements. Still it didn't work, I finally realized the reason it wasn't color coding how I intended was because the case statements were in integers when the numbers I was referencing were percentages so I should've been using decimals. Once I changed the numbers, the cells were coding fine.

Most of the issues I had dealt with referencing the correct cells. One way I learned to overcome this was to go back to the basics and perform a similar routine and record the macro. After doing that, I studied the recorded macro and figured my way through finding the tidbits I needed to know. I had a hard time figuring how to reference cells in formulas, so that was one major area that I tended to perform a recorded macro then study the code and figure out how to develop what I needed from there.

The hardest thing to do was try to work and rework through each line of code to figure out where the issues were, especially if there's no error code. It truly taught me to be observant of everything from the code to the information in the worksheets and even to pay attention to the formatting of the cells. But most of all, I learned a lot of patience!