

# Lab 2

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**Due** Sep 22, 2020 by 11:59pm    **Points** 10    **Submitting** a file upload  
**File Types** xlsx    **Available** until Sep 30, 2020 at 11:59pm

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This assignment was locked Sep 30, 2020 at 11:59pm.


## Statement of Authorship

- Lab to be done individually
- In order to be graded, the following Statement of Authorship must be present at the beginning of the spreadsheet
- I, Firstname Lastname, student number 123456789, certify that this material is my original work. No other person's work has been used without due acknowledgment and I have not made my work available to anyone else.
- Replace Firstname Lastname with your name and 123456789 with your student number

## Introduction

In the next lab, lab 3, you will load two tables with data. Before you do the loading, you must prepare your data. The preparation of the data is what constitutes this lab. Use Microsoft Excel to create your data.

One table will have master data, and the other will have sales data. Detailed instructions follow, but it may help to start with an example. Data for Dr. Darla's tables appear below.

In this simple example, the master table means the most important table. In a "real" system there would be many more than just two tables. And each table would have far more columns and rows than is nted in this example.

If you look at the example, you will see data for a dental services table (the master table), an explanation of the service type code, and data for a sales table. The sales data appears twice; the first time it is arranged chronologically (by date), and the second time you see it sorted on Service ID. The sorting has been done so that the Sales YTD (Year To Date) field in the master table can be easily calculated.

Start Excel and create a file named **lab2.xlsx**.

## Example Data

	A	B	C	D	E	F	G
1	<b>Statement of Authorship - I, Firstname Lastname, student number 123456789, certify</b>						
2	that this material is my original work. No other person's work has been used						
3	without acknowledgement and I have not made my work available to anyone else.						
4							
5	<b>Name of business - Dr. Darla's Door-to-Door Dentistry</b>						
6	<b>Owner - Student Name</b>						
7							
8	<b>Nature of business - Dental work on your doorstep or inside your home</b>						
9							
10	<b>Dental Services</b>						
11	<b>Service ID</b>	<b>Service Description</b>	<b>Service Type</b>	<b>Hourly Rate</b>	<b>Sales YTD</b>		
12	100	Extraction	E	100.00	300.00		
13	200	Cleaning - Upper	C	75.00	300.00		
14	300	Cleaning - Lower	C	75.00	225.00		
15	400	Filling	F	85.00	700.00		
16	500	Root Canal	F	150.00	575.00		
17							
18	<b>Service Type</b>	C = Cleaning					
19		E = Extraction					
20		F = Filling					
21							
22	<b>Sales (in chronological order)</b>						
23	<b>Sales ID</b>	<b>Sales Date</b>	<b>Amount</b>	<b>Service ID</b>			
24	1	2020-07-06	75.00	100			
25	2	2020-07-08	100.00	200			
26	3	2020-07-11	500.00	400			
27	4	2020-07-15	150.00	100			
28	5	2020-07-21	100.00	300			
29	6	2020-07-28	75.00	100			
30	7	2020-08-02	125.00	500			
31	8	2020-08-05	300.00	500			
32	9	2020-08-10	125.00	200			
33	10	2020-08-18	50.00	300			
34	11	2020-08-24	85.00	400			
35	12	2020-08-30	115.00	400			
36	13	2020-09-03	75.00	200			
37	14	2020-09-07	150.00	500			
38	15	2020-09-09	75.00	300			
39							
40	<b>Sales (sorted by Service ID - the key field of the master file)</b>						
41	<b>Sales ID</b>	<b>Sales Date</b>	<b>Amount</b>	<b>Service ID</b>			
42	1	2020-07-06	75.00	100			
43	4	2020-07-15	150.00	100			
44	6	2020-07-28	75.00	100			
45	2	2020-07-08	100.00	200			
46	9	2020-08-10	125.00	200			
47	13	2020-09-03	75.00	200			
48	5	2020-07-21	100.00	300			
49	10	2020-08-18	50.00	300			
50	15	2020-09-09	75.00	300			
51	3	2020-07-11	500.00	400			
52	11	2020-08-24	85.00	400			
53	12	2020-08-30	115.00	400			
54	7	2020-08-02	125.00	500			
55	8	2020-08-05	300.00	500			
56	14	2020-09-07	150.00	500			

The sum of these three cells equals the value in Sales YTD above for Service ID 100.

## Scenario

Imagine a small business you could see yourself starting. The business can be any one of a number of possibilities (excluding Dentistry). Here are a few examples. You are welcome to come up with an idea

not in the list below.

- Baked Goods
- Bookkeeping
- Brew Your Own
- Car Repair
- Dance Studio
- Desk Top Publishing
- Disk Jockey
- Electronic Security
- Exterminator
- Flower Shop
- Hot Dog Cart
- ISP
- Landscape & Maintenance
- Painting & Decorating
- Parking Lot Maintenance
- Personal Trainer
- Plumbing
- Roofing
- Skateboard Shop
- Tattoos and Body Piercing
- Web Page Design
- White Water Rafting

You will have two tables. The "master" table and a sales table.

## Master Table



"master" table will be one of the following:

- Customers
- Items
- Services

Choose the one that you feel is most appropriate for your business. Dr. Darla, the Door to Door Dentist, does not sell items but instead provides a service. Therefore, her choice would be to set up a dental services table to keep track of various services such as fillings, extractions, and cleanings. The dental services table would help her determine the relative popularity and the different revenue levels of the services she provides.

### Customers

- Customer ID (Primary Key)

- Customer name
- Category - must be one uppercase character (used to put Customers into Territories or to put Customers into Discount Groups)
- Credit limit, ex. \$500.00 or \$1,000.00 or \$2,000 or some value of your choosing, not all customers have to have the same credit limit
- Year-to-date sales

## Items

- Item ID (Primary Key)
- Item description
- Category - must be one uppercase character (used to put Items into classes)
- Quantity on hand
- Year-to-date sales

## Services

- Service ID (Primary Key)
- Service description
- Service type - must be one uppercase character (used to put Services into classes, ex. C for Cleaning, E for Extraction, F for Filling)
- Hourly rate, ex. \$25.00 or \$75.00 or \$100.00 or some value of your choosing, not all services have to have the same rate
- Year-to-date sales

Category/Service type is meant to be a code for grouping. You should only have 2 or 3 different values. Add the explanation section for the codes.

## Sales Table

- Sales ID (Primary Key)
- Sales date
- Sales amount
- Customer ID or Item ID or Service ID (Foreign Key)

## Data

Once you have decided on which master table you will use for your business, it is time to make up data for the two tables. You must have at least 5 records in your master table and at least 15 records in your sales table. On average, you should have 3 sales records per master record.

Remember that the sales data appears twice; the second time it is sorted by the key of the master table. Also, make sure that your sales records correspond to the data in your master table.

- Do not use the values from the Dr. Darla example, meaning that your master table primary key must be different from Dr. Darla's and the sales amounts must be different too

- For example, if your master table is a Customers table, make sure the Customer ID in each sales record corresponds to an existing Customer
- Ensure that the sales IDs make sense i.e. they increase as more records are added
- Ensure that all of the sales dates are from this year and use a consistent format that shows 4 digits for the year
- In addition, make sure the total of the Sales Amounts equals the year-to-date's sales figure in the corresponding master record

## Lab 2



Criteria	Ratings			Pts
Business has been named	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Business owner has been named	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Nature of the business has been explained	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Master table complete (at least 5 rows)	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Category/Service Type is 1 uppercase character and has no more than 3 different values	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Category/Service Type has explanations for each code value	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Version 1 of sales data complete (at least 15 rows)	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Version 2 of sales data (the sorted version) complete	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Foreign key in sales table consistent with primary key in master table	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Year-to-date sales figure in each master record matches the total of the transaction amounts in the corresponding transaction records	1 pts Full Marks	0.5 pts Partial Marks	0 pts No Marks	1 pts
Total Points: 10				