

MS Access DB Tour 3 – Extracts and Reports

Reference Material

- GCFLearnFree.org lessons: <http://www.gcflearnfree.org/Access2013>

Skills

- Building queries that are used to create data Extracts to other programs such as Excel
- Building custom report from an Access database

Assignment

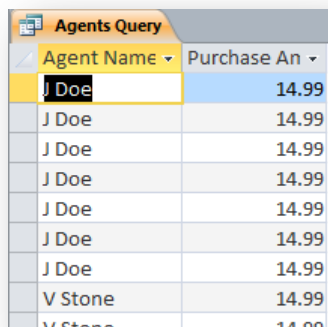
Part 1 – Building Queries and Extracting Data

1. To start with, download an existing Access Database:
<https://www.cs.mtsu.edu/~hcarroll/1150/tours/msOffice/accessTour3.accdb>.
2. Open the file, it should open in Microsoft Access. Once the file opens, click File and choose **Save Database As**. Save the file as **accessTour3-YourName.accdb**.
3. Now double-click to open your file in Access, click on Enable Content

Extract 1 - Purchases – It's time to evaluate raises for WHP's Agents. The primary measure of Agent performance is how much revenue the artists generated. You've been asked to create an Excel Pivot chart for agent generated revenue.

1. The first step is to build a query that creates a table of agents and their artists' sales
 - a. Go to the Create tab, Query Wizard icon and choose Simple Query. Then, click OK.
 - b. From the **Agent** table select Agent Name
 - c. From the **Customer Purchases** table select Purchase AmountThe relationships within the Access DB will tie the two elements together
- d. Click Next two times and then Finish

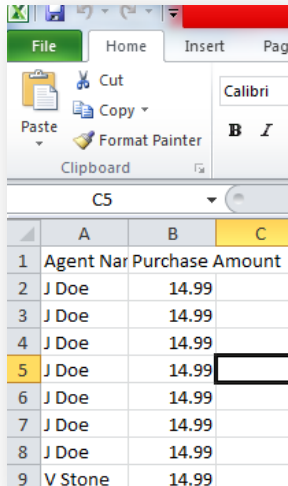
A table with the Agents' names and individual transaction amount will be created. It will have 45 records. (subset shown below)



Agent Name	Purchase Amount
J Doe	14.99
J Doe	14.99
J Doe	14.99
J Doe	14.99
J Doe	14.99
J Doe	14.99
J Doe	14.99
J Doe	14.99
V Stone	14.99
V Stone	14.99

- e. Save the query

2. The second step is to Extract the Query Results into Excel format
 - a. Go to the EXTERNAL DATA tab on the ribbon, in the Export group, and click on Excel
 - b. You can accept the extract file name
 - c. Click to check **Export Data with formatting and layout** and **Open the destination file after export operation is complete**, then hit OK
 - d. If Excel tells you the file already exists, do you want to open it? Click NO, just go back and choose a new name for the excel file
 - e. Excel will launch with the exported workbook/spreadsheet (subset shown below)



	A	B	C
1	Agent Name	Purchase Amount	
2	J Doe	14.99	
3	J Doe	14.99	
4	J Doe	14.99	
5	J Doe	14.99	
6	J Doe	14.99	
7	J Doe	14.99	
8	J Doe	14.99	
9	V Stone	14.99	

- f. **In Excel**, create a Pivot Chart with Agent as the Axis Fields and Purchase Amount as the Values. So start by selecting A1-B46, Clicking on the Insert tab and then the PivotTable icon drop down triangle so you can choose **PivotChart**. Be sure to select **New Worksheet**, and then click OK. On the right hand side of your screen, drag Agent Name to the Axis Fields box and Purchase Amount to the values box. As shown in picture below.
- g. Reposition the chart so it is below the data
- h. Save the Excel file as *accessTour3-purchases-YourName.xlsx* and Close Excel.
- i. Submit your *accessTour3-purchases-YourName.xlsx* file into the "MS Access Tour 3 – Purchases Spreadsheet" D2L dropbox at elearn.mtsu.edu.
- j. Back in the Access program, it will be asking if you want to Save Export Steps, you don't want to so just click Close.
- k. Close the query you just created

Extract 2 - Profits– A request has been made to analyze the total profitability of the Agent, taking into consideration our CD vs. Download business. To do this you will create a query, extract to Excel, calculate the profitability of each recording and media and then create a pivot chart to display the results. The standard profitability for a CD is \$3.00 and for a download it is \$5.00. We like downloads!

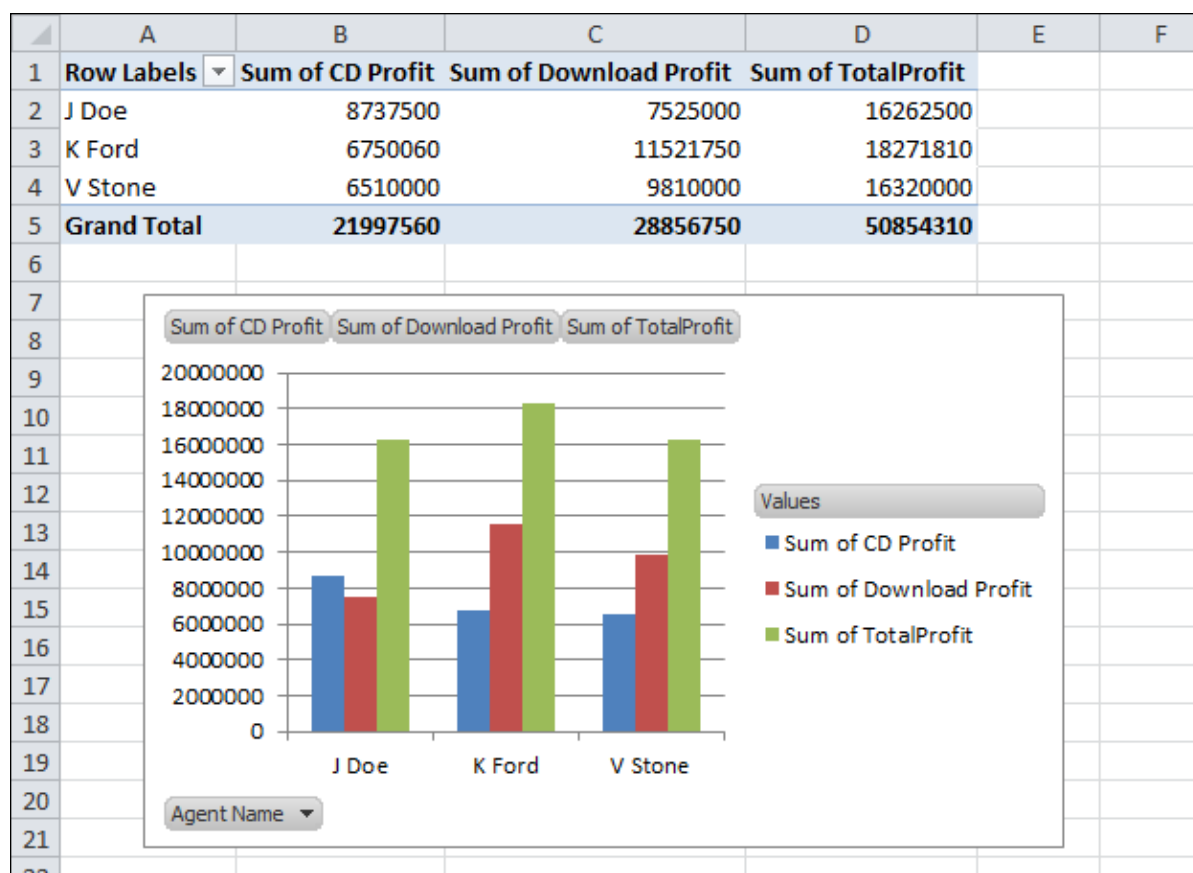
1. The first step to create the query is to pull the data from the database. In Access, on the Create tab, choose the Query Wizard again and choose Simple Query, then click OK:
 - a. Select Agent Name from the Agents table
 - b. Title, CDs Sold and Downloads from the Recordings table (Note that Titles is not required for the assignment, but it anticipates being requested to explain the data.)
 - c. Click Next twice, then Finish
2. The second step is to extract the data to Excel. Go back to the EXTERNAL DATA tab on the ribbon, in the Export group, and click on Excel.
 - c. You can accept the extract file name (if it tells you one already exists later, you can just rename the file then).
 - d. Click to check **Export Data with formatting and layout** and **Open the destination file after export operation** is complete, then hit OK
3. When complete, you will be in Excel looking at the same data from the query.
4. In Access, just click Close when asked to save the Export Steps.
5. Click back on the Excel program if needed. The third step is to insert the calculations (These steps are all done in Excel)
 - a. Click on cell A23 and type **CD Profitability**
 - b. Click on cell A24 and type **Download Profitability**
 - c. In cell B23 type **3.00**
 - d. In cell B24 type **5.00** (It's OK if it does not show the decimals on your spreadsheet)
 - e. Insert a column between columns C and D (click to select all of column D and then right click and choose Insert, column D becomes E), label the new column **CD Profit**, and format the column as a currency field type (use the icon on the Home tab that has a dollar sign on it - \$ to represent currency).
 - f. Set up the following simple formula in cell D2 , type in **=C2*\$B\$23** and copy it for the other rows in the table (use skinny plus sign – AutoFill) (**Remember that the dollar symbol in this case is using an absolute reference, so that each cell is multiplied by what is in cell B23**)
 - g. In column F, label it **Download Profit**, format it as a currency field type, resize the column width so the title is fully visible
 - h. Set up the following simple formula in cell F2, type in **=E2*\$B\$24** and copy it for the other rows in the table
 - i. In column G, label G1 **Total Profit**, format it as currency, and make the column wide enough
 - j. Set up the following simple formula in G2, **=D2+F2** and copy it for the other rows in the table

Your table should look similar to this (don't worry if your data is in a different order)

	A	B	C	D	E	F	G	H
1	Agent Name	Title	CDs Sold	CD Profit	Downloads	Download Profit	TotalProfit	
2	J Doe	Better Ways	200000	\$ 600,000.00	100000	\$ 500,000.00	\$ 1,100,000.00	
3	J Doe	Out of the Way	800000	\$ 2,400,000.00	320000	\$ 1,600,000.00	\$ 4,000,000.00	
4	J Doe	Back to the Way	940000	\$ 2,820,000.00	400000	\$ 2,000,000.00	\$ 4,820,000.00	
5	V Stone	White Flies	335000	\$ 1,005,000.00	370000	\$ 1,850,000.00	\$ 2,855,000.00	
6	V Stone	Daffy Punk	434000	\$ 1,302,000.00	356000	\$ 1,780,000.00	\$ 3,082,000.00	
7	J Doe	East-West	311500	\$ 934,500.00	270000	\$ 1,350,000.00	\$ 2,284,500.00	
8	J Doe	V-8 Ford Blues	250000	\$ 750,000.00	200000	\$ 1,000,000.00	\$ 1,750,000.00	
9	J Doe	Wild Man on the Loose	411000	\$ 1,233,000.00	215000	\$ 1,075,000.00	\$ 2,308,000.00	
10	K Ford	Around the Bend and Back	210020	\$ 630,060.00	182350	\$ 911,750.00	\$ 1,541,810.00	
11	K Ford	Friend Me Please	240000	\$ 720,000.00	112000	\$ 560,000.00	\$ 1,280,000.00	
12	K Ford	Country's Hip Again	330000	\$ 990,000.00	510000	\$ 2,550,000.00	\$ 3,540,000.00	
13	K Ford	New Country	120000	\$ 360,000.00	180000	\$ 900,000.00	\$ 1,260,000.00	
14	V Stone	Turpentine	423000	\$ 1,269,000.00	216000	\$ 1,080,000.00	\$ 2,349,000.00	
15	V Stone	Revultion	350000	\$ 1,050,000.00	420000	\$ 2,100,000.00	\$ 3,150,000.00	
16	V Stone	Crazy Ex-Girl Mother In-Law	215000	\$ 645,000.00	115000	\$ 575,000.00	\$ 1,220,000.00	
17	K Ford	New Day	125000	\$ 375,000.00	170000	\$ 850,000.00	\$ 1,225,000.00	
18	K Ford	Sunny Day	650000	\$ 1,950,000.00	750000	\$ 3,750,000.00	\$ 5,700,000.00	
19	K Ford	Better Day	575000	\$ 1,725,000.00	400000	\$ 2,000,000.00	\$ 3,725,000.00	
20	V Stone	Ingratitude	178000	\$ 534,000.00	132000	\$ 660,000.00	\$ 1,194,000.00	
21	V Stone	Surley	235000	\$ 705,000.00	353000	\$ 1,765,000.00	\$ 2,470,000.00	
22								
23	CD Profitability		3					
24	Download Profitability		5					
25								
26								

6. The final step is to create the Pivot chart
 - a. Select the range to A1 – G21 (all the data)
 - b. On the Insert tab select Pivot **Chart**, select New Worksheet, click OK
 - c. Use Agent Name for the Axis Field
 - d. Use CD Profit, Download Profit, and Total Profit for the values
 - e. Reposition the chart under the data
 - f. Save the workbook as *accessTour3-profits-YourName.xlsx* and exit Excel.
 - g. Submit your *accessTour3- profits -YourName.xlsx* into the "MS Access Tour 3 – Profits Spreadsheet" D2L dropbox at elearn.mtsu.edu.

Your output should look as follows



Part 2 – Database Reports

Based on the above analysis you've been asked to produce a report that shows the agents, their artists and the artists recording titles. This will help the WHP management team to evaluate the agent workload (number of artists assigned to each agent).

1. Back in Access, Go to Create tab, **Report** Wizard
2. Select Agent Name from the Agent Table (be sure you selected the table not a query), Artist Name from the Artist table and Title from the Recordings table
3. Click Finish, the report will be displayed (sample shown below)

Agents		
Agent Name	Artist Name	Title
J Doe	Claudia Caraway	Out of the Blue
	Mike Starfield	East-West
	Mose Allison	Wild Men on the Lo
	Susan Tedeschi	V8 Ford Blues
		Back to the River
V Stone		Better Days
	MS7	Deft Punk
		White Lies
	Gun Light	

4. Save the Report and close it.
5. Exit Access doing any Saves that you are prompted to do.
6. Submit your *accessTour3-YourName.accdb* into the "MS Access Tour 3 – Extracts and Reports" D2L dropbox at elearn.mtsu.edu.