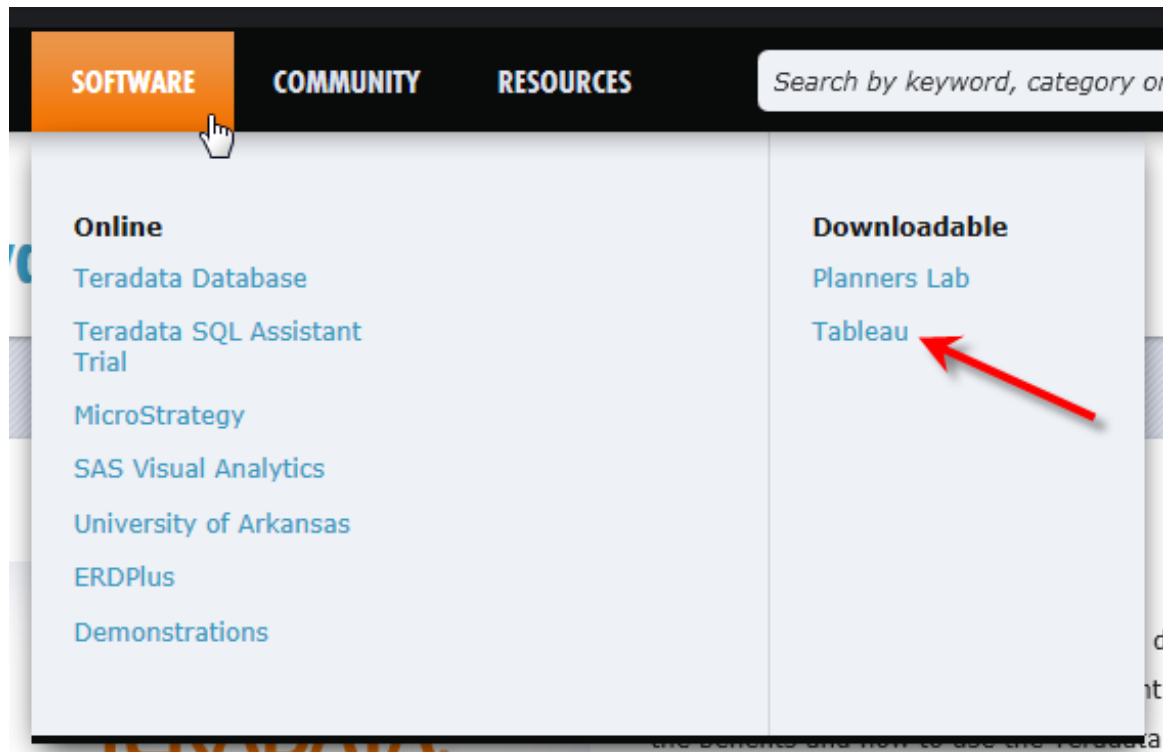


Assignment – Analytics & Data Visualization using Tableau

Tableau is a recognized leader in data visualization and has a wide variety of customers from smaller organizations to fortune 500 companies. For a company profile, the Website for Tableau is <http://www.tableausoftware.com/>.

The example in this document illustrates a few of the many visualization features available using Tableau and data for airplane bird strikes. To use their software for instruction purposes, Tableau partners with Teradata University Network (TUN) and provides multiple options for faculty and student use including a free trial download and free access to Tableau Desktop.

Login to Teradata University Network (www.teradatastudentnetwork.com) and hover your mouse over SOFTWARE as shown below. Note that Tableau is in the Downloadable column.



Click Tableau and then the Learn More button which takes you to the Tableau website. From the Tableau Website: <http://www.tableausoftware.com/academics>, click the Free Access to Tableau Desktop as shown below. You also have the option of downloading a Free Trial version.

Academic Programs




Tableau for Teaching
Learn more and get licenses





Tableau for Students
Free access to Tableau Desktop



Administration
Learn more by visiting our solutions

You will be asked to unlock your free student copy of Tableau by providing information. Follow any instructions for registration and activation.

On the Tableau Website (<http://www.tableausoftware.com/learn/training>), there are short videos that can be helpful. I recommend viewing the first video, Getting Started.

▼ Intro	
TITLE	LENGTH
Getting Started	21:00
Connecting to Excel, CSV and Text Files	7:00
What's New in Tableau Desktop 8	11:00
Connecting to Databases	13:00
Amazing Things	15:00
Working with Data	5:00
Analyzing	10:00
Formatting	17:00
Introduction to Calculations	11:00
Dashboard Development	13:00
Sharing	3:00
Tableau Online	5:00
Introduction to Tableau	16:00

BEFORE YOU BEGIN:

Please go to the following website to gain experience with the software:

<https://onlinehelp.tableau.com/current/guides/get-started-tutorial/en-us/get-started-tutorial-connect.html#>

Now for the project. There is no fixed answer. I'm interested in how you develop your skill at using a data visualization tool for business intelligence and problem solving/investigation. In part, this means picking an appropriate kind of visualization to really help find patterns in the data and present a convincing view of the issues. Each student, I'm sure, will come up with a different result. Here is the situation: assume you are a marketing manager in this coffee house chain and you have a sense that there are profitability issues in your products. You don't know exactly how to define the problem nor what factors contribute to the issues. But, you want to explore this situation by visualizing the data you've received from those kind folks in IT (your data mart in a single Access table—well, not the normal BI data source, but it will do).

So, call up the Coffee House Chain source and begin to explore. I have attached the coffee House Chain Data if you cannot find it.

What products are under performing? What correlates with profit? Are there issues with certain product lines, products, markets, pricing structures (margins), costs,?

There are multiple answers. Treat this like a typical case study where you've been given data and you need to find where the problems are. What I'd like to see in your report is an explanation of what you discovered and enough screen shots from your analysis to show the logic of how you reached your conclusions and to convince me you found the problem. I suspect that with each screen shot you'd define what question you are asking, what you observe, and why you went where you did next in your step-by-step problem exploration process.

Now, how to do you know when you are done? Good question. One answer is, you have a justification for where profitability issues are and their causes. You don't have to be comprehensive. Find one or two factors that identify where the issues are and what cause them. A second answer is that you have generated several (roughly 6-10) displays that show your progressive investigation, and these displays show different capabilities of Tableau (e.g., using the different shelves, filtering data, different styles of graphs -- Tableau does a lot of automatic generation of what it thinks is the right type of graph). In other words, treat this like a problem solving, treasure hunt, or business case.