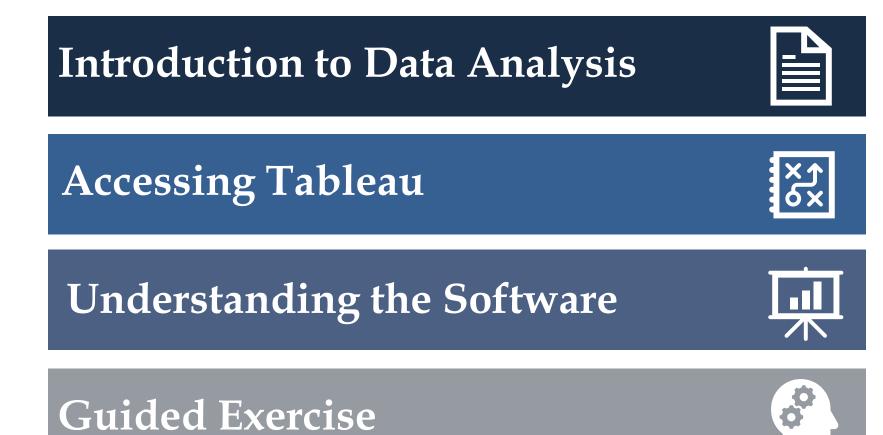
### Attendance: tinyurl.com/MCGTableau

# Tableau Workshop











### What is Data Analysis?

 Cleaning, transforming, and modeling data to create comparisons and analyze trends

### How is Data Visualization Used?

 Presenting large amounts of data in digestible formats, leading to better decision-making

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Over 90% of our data today was created within the last two years

Every online search, photo, text, and social media post creates new data



The Internet of Things is largely responsible for the recent data explosion

This has led to massive amounts of structured and unstructured data, now known as **big data**.



#### **1. Descriptive Analytics**

Using past data, many times in the form of companies' KPIs, to discover how critical trends and comparisons evolved over time

# (M)

#### 2. Diagnostic Analytics

Determining the root cause behind the observed trends from the descriptive analytics by using additional data sets

#### **3. Predictive Analytics**

Conducting risk assessments and forecasts to determine what the outcome of future actions may be Types of Data Analytics

#### 4. Prescriptive Analytics

Combines results from past three analytics to determine what the best data-driven decisions that can be made



### **Popular Analytics Tools**



Power BI

alteryx



**Free Data Sources** 









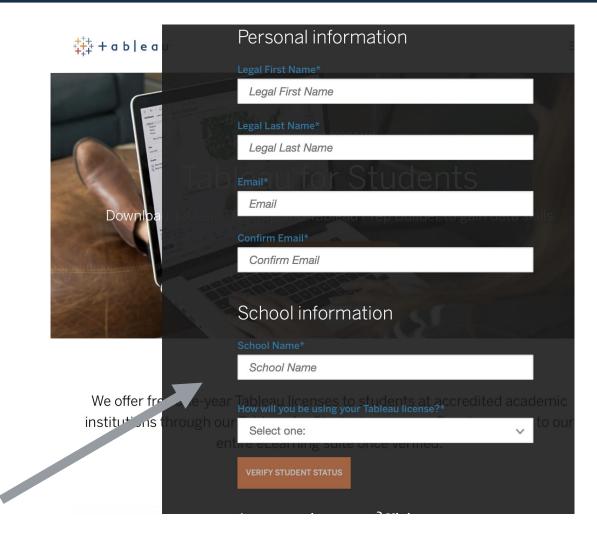
### **Downloading the Software**



### **Steps to Download**

- 1. Search for <u>Tableau Student</u>
- 2. Register with your Binghamton email
- Check your inbox for instructions to download Tableau Desktop and Tableau
- 4. Download the eLearning software with the respective code

Students receive free one-year Tableau licenses and eLearnings



# **Downloading the Software**



Welcome to Tableau for Students! Your academic license now includes Tableau Desktop, Tableau Prep, and eLearning for free.



The product key below can be used to activate both Tableau Desktop and Tableau Prep on two separate computers, Windows or Mac. This key will expire in one year.

- Download Tableau Desktop
- Download Tableau Prep
- Activate with your product key: TCBN-3AA5-FFA0-4E73-6FDA
- If you're receiving the error "product key is invalid" visit the <u>knowledge base page</u> to resolve your issue.



Get started with free eLearning online self-paced courses:

- 1. Go to https://elearning.tableau.com
- 2. Create (or login to) your TableauID account, and confirm email address via the TableauID confirmation email
- 3. Go to https://elearning.tableau.com and log on using your TableauID
- 4. Register at the Tableau Learning Center with this Access Key: **1ce14-dhjic2yn**

These keys are for your personal use only. Please do not share them. Need additional help? check out the <u>FAQ's</u> or <u>submit a case</u> for installation support.

# Importing Excel File



Tableau allows you to import data from multiple sources

The datasets MCG provided to teams are Excel files, you should import them accordingly

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					Open a Workbook	
Tableau Server						
						) Training
Microsoft Excel						Getting Started
Text file						Connecting to Data
JSON file Microsoft Access						
PDF file						Visual Analytics
Spatial file						Understanding Tableau
Statistical file						More training videos
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						<b>A</b> -
Microsoft SQL Server						Resources
MySQL						Get Tableau Prep
						Blog - Announcing Tableau
Amazon Redshift More						Conference-ish Coming October 6–8, 2020
NOTE						The NEW Community Forums
						Sample data for Relationships
Sample - Superstore						
World Indicators	Sample Workbooks	Regional	World Indicators		More Samples	3 days of nonstop data action. 100% Free + Virtual • Shoes Optional → LEARN MORE
						Update to 2020.3 Now

### **Editing Dataset**



Once you import the file you should be brought to this screen, where you can make changes to the data if needed

Tableau utilizes live connections between datasets, so if you change the data in Excel it will also be updated in Tableau

When your dataset is ready to be visualized, you will move on to the Worksheet

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### **Measures vs. Dimensions**



Dimensions are qualitative information that determine groupings

Groups and Targets can be refined by dragging the target/group to the Filter Tool

#### Data Analytics

Sheet1 (mcdonalds datas...

Dimensions

Abc Group

Abc Target

Abc Measure Names

#### Measures

- # Base Total '000
- # Burger King
- # Carl's Jr.
- # Checkers
- # Five Guys
- # McDonald's
- # Smashburger
- # Wendy's
- # Whataburger
- # Number of Records
- # Measure Values

Measures are quantitative information that is used for visualizations

Comparing Measures is an effective way to compare two different datapoints

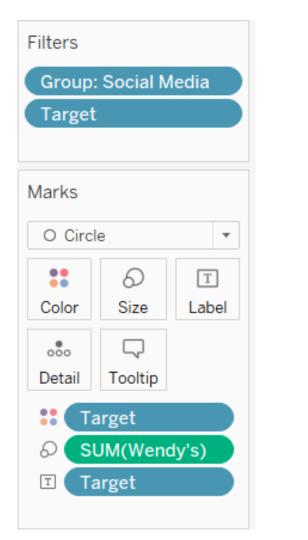
# **Applying Data in Columns and Rows**



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■ Rows     Group     Target	= 1234 678 = 368 3034 = 5629 2559 		- 1234 546 - 348 388 - 2529 53890		
Double click or drag		The Show Me Tool is	44	577	
measures and dimensions to move	50 12 15	very useful in showing you the visualizations		$\mathbf{h}\mathbf{h}$	di.
them into columns or	that could be created with your data				
rows			<b>**</b>	≶≈	
Multiple measures	The switch column/rows, ascending, and descending	Simply click on one of	$\sim$		
and dimensions can be used in each	tools are useful to rearrange the orientation of your data	the pictures and Tableau will create	0+0 0++ 0++	.dh.	ĮĮĮ
column and row		that visualization for you			

### Marks & Filter





Filters allow you to refine your data to only certain groups or target points

Marks allow you to manipulate the graph features after bringing the measures or dimensions into columns and rows

#### Examples Include:

- Color changes to graphs
- Size edits to emphasize certain datapoints
- Label adds data
   labels to the graph
- Detail is useful to point out small marks within the data

# Questions?

