INTRODUCTION TO TABLEAU

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AGENDA

- Introduction
- What is Tableau
- Getting Started
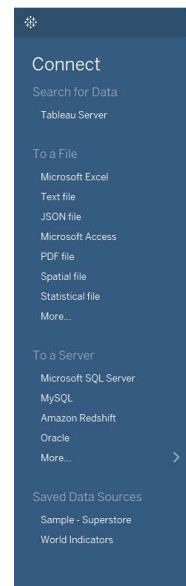- Tips and Tricks

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WHAT IS TABLEAU

- Data visualization and business intelligence tool.
- Create sharable interactive dashboards to support business decisions.
- Drag and drop design interface.
- Bring together a wide variety of data sources.
- Extremely customizable.
- Supports multiple programing languages, but not code based.

- Tableau products
  - Tableau Desktop
  - Tableau Prep
  - Tableau Server
  - Tableau Mobile
  - Tableau Public

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CONNECTING TO DATA

- Types of Data
- Physical Layer vs Logical Layer
- Ways to query
  - Tables
  - SQL queries
  - Unions
- Making changes to data source
- Extract vs Live data

Connect

Search for Data
  Tableau Server

To a File
  Microsoft Excel
  Text file
  JSON file
  Microsoft Access
  PDF file
  Spatial file
  Statistical file
  More...

To a Server
  Microsoft SQL Server
  MySQL
  Amazon Redshift
  Oracle
  More...

Saved Data Sources
  Sample - Superstore
  World Indicators

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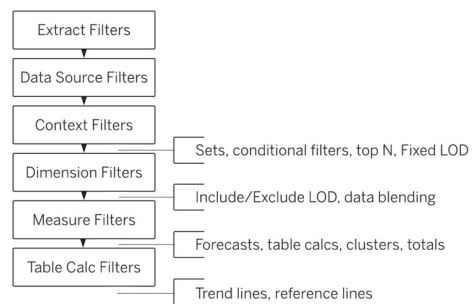GREEN BAY

WORKSHEETS

- Tour of the Worksheet workspace
- Dimensions vs measurements vs parameters
- Build a basic table
- Formatting options
- Build a basic bar chart
- Build a Pie Chart
- Duplicating worksheets

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FILTERS

- Adding filters
  - General
  - Wildcard
  - Condition
  - Top
- Showing filters
- Filter formats
- Applying to multiple worksheets

- Order of operation

| Extract Filters |
| Data Source Filters |
| Context Filters |
Dimension Filters	— Sets, conditional filters, top N, Fixed LOD
Measure Filters	— Include/Exclude LOD, data blending
Table Calc Filters	— Forecasts, table calcs, clusters, totals
	— Trend lines, reference lines

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CREATING CALCULATIONS

- Create Calculated Field
  - Basic if statement
  - Combining fields
  - Dummy fields
  - Table calculations

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CREATING PARAMETERS

- Create Parameter
- Create calculated field
- Apply to worksheet

Student Group ✕

```
IF  [Student Group ]= "Gender" then [Gender Filter]
ELSEIF [Student Group ]= "First Generation" then [First Generation]
ELSEIF [Student Group ]= "Ethnicity" then [Ethnicity]
ELSEIF [Student Group ]= "PELL" then [Pell]
ELSEIF [Student Group ]= "Student Level" then [Student Level]
ELSEIF [Student Group ]= "Students of Color" then[Students of Color]
ELSEIF [Student Group ]= "Local" then [Brown County]
ELSEIF [Student Group ]= "Age" then [Age Category OPAR]
ELSEIF [Student Group ]= "Commuter" then [Commuter]
ELSEIF [Student Group ]= "Full time Part time" then [Full time Part time]
ELSEIF [Student Group ]= "Campus" then [Student Campus Filter]
ELSEIF [Student Group ]= "Age Internal" then [Age Category Internal]
ELSEIF [Student Group ]= "Admit Type" then [Admit Type]
ELSEIF [Student Group ]= "GPA Range" then [Cumulative GPA ranges]
ELSEIF [Student Group ]= "Major" then [Academic Plan Major]
ELSEIF [Student Group ]= "Repeated" then [Repeated course]
```

The calculation is valid.   14 Dependencies ▾   Apply   OK

Edit Parameter [Student Group]   ✕

Name
[Student Group]

Properties
Data type   Display format
String ▾   All ▾

Current value   Value when workbook opens
All ▾   Current value ▾

Allowable values
○ All   ◉ List   ○ Range

Value	Display As	
All	All	◉ Fixed
Gender	Gender	○ When workbook opens
First Generation	First Generation	Add values from ▾
Ethnicity	Ethnicity	
Students of Color	Students of Color	
PELL	PELL	
Student Level	Student Level	Remove Selected

Cancel   OK

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CREATING A DASHBOARD

- Tour of the work area
- Dashboard pane
- Layout Pane
- Fixed vs Floating
- Show/hide button
- Buttons

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PUBLISHING DASHBOARDS

- Tableau Public
  - Free and publicly available
  - No governance or security
  - No automatic updating
- Tableau Server
  - Requires paid server space and application.
  - Provides tight control over security.
  - Provides a number of automatic updating functions
- Tableau Reader
  - Requires reader software to be used.
  - No governance, security, or administrative abilities.
  - No automatic updating

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QUESTIONS / BREAK

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TIPS AND TRICKS

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KEYBOARD SHORTCUTS

- CTRL to copy pill
- Ctrl * to open all layers
- Ctrl Z to undo
- Ctrl S to Save
- Ctrl C, X, V – just like word.
- Ctrl+Shift+B increase pie chart size
- Ctrl+B decrease pie chart
- Ctrl Alt C calculated field (Alt A+C)

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WORKSHEET TIPS

- Index in tables
- Dummy variables
- Multiple measure columns
- Drag pills into calculations
- Default properties vs worksheet properties

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CUSTOM COLORS

- Find My Tableau Repository and look for the Preferences.tps file

- Open in Notepad, Notepad ++, or some similar project

- Enter the HEX color numbers of your choice

```
<color-palette name="My Categorical Palette" type="regular">
<color>#eb912b</color>
<color>#7099a5</color>
<color>#c71f34</color>
<color>#1d437d</color>
<color>#e8762b</color>
<color>#5b6591</color>
<color>#59879b</color>
</color-palette>
```

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CUSTOM SHAPES

- Find My Tableau Repository and go to the Shapes folder

- Create a new folder and add your shape files.
  - Best file types are .jpg or .png

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