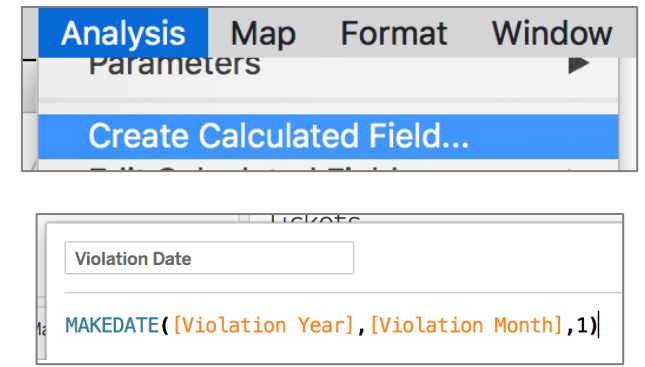
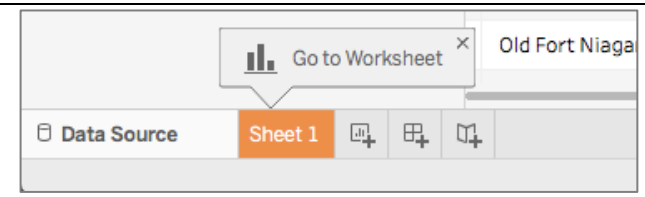
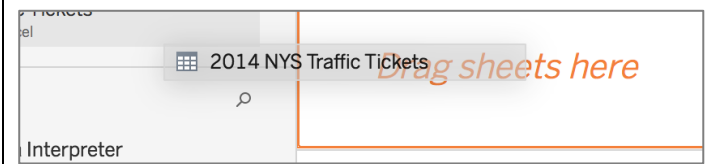
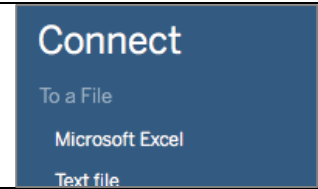
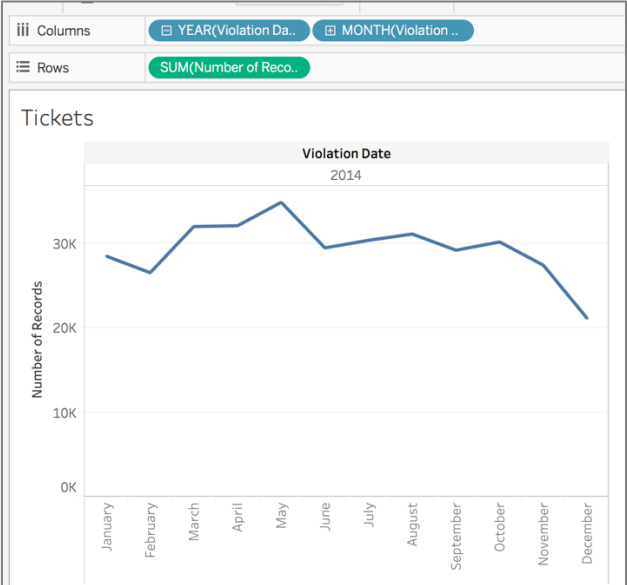
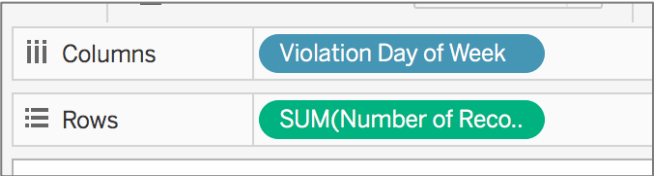
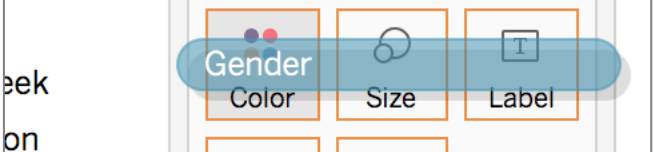
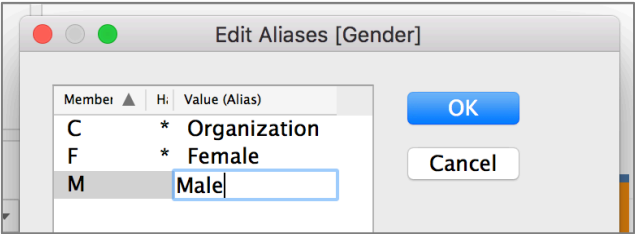

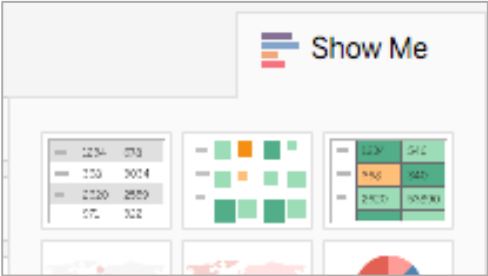
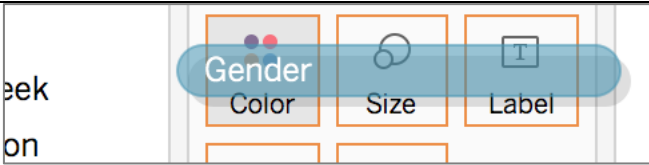
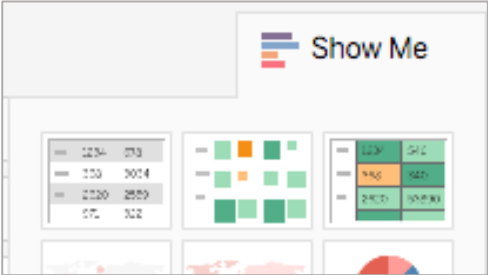
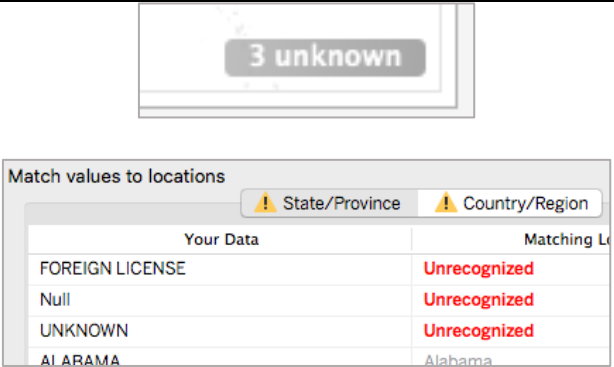


Getting Started with Tableau II
Activity Guide

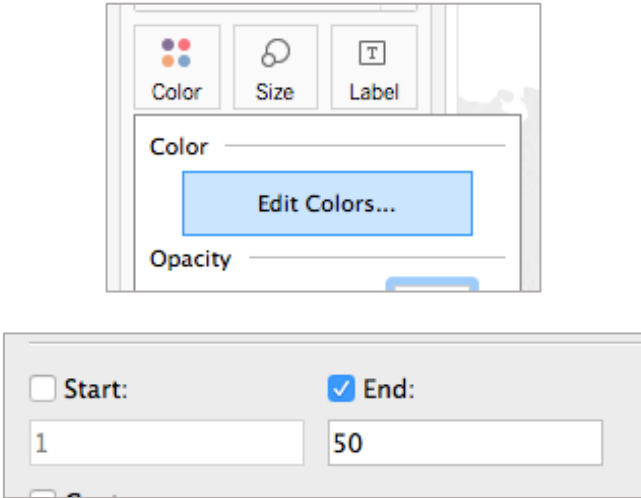
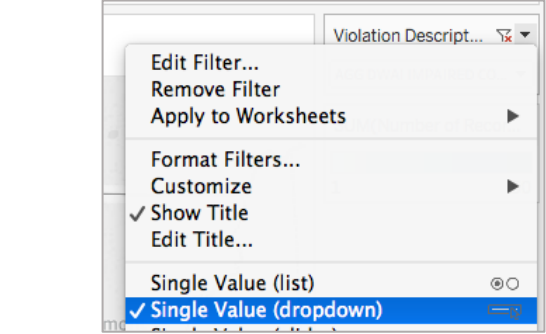
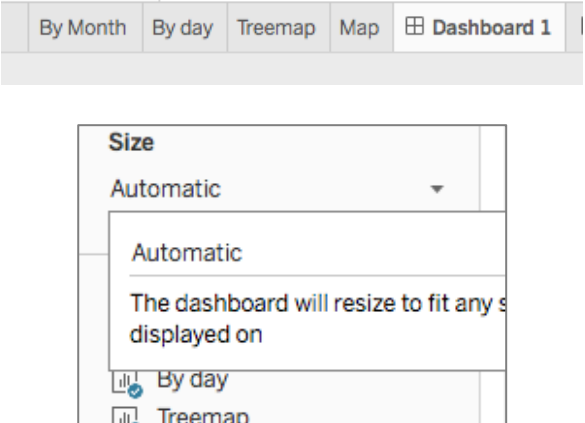
GOAL: CREATE AN INTERACTIVE TRAFFIC TICKET DASHBOARD		
	Step	How-To
1	Create a project and connect a data source	<ol style="list-style-type: none"> 1. Open Tableau Public 2. Under Connect, click on Microsoft Excel 3. Select your data file: "2014_Tickets_Cleaned.xls" 4. Click Open
2	Select an excel sheet	<ol style="list-style-type: none"> 1. Look for the Sheets section in the top left corner 2. Drag "2014_NYS_Traffic_Tickets" to where it says Drag sheets here 3. See your data columns appear below
3	Name your worksheet	<ol style="list-style-type: none"> 1. Click on Sheet 1 to go to your workspace 2. Double click on "Sheet 1" and rename the tab to something more descriptive: "By Month"
4	Create a new date field	<ol style="list-style-type: none"> 1. In the Analysis menu select Create Calculated Field... 2. In the dialog box: <ol style="list-style-type: none"> a. Provide a name for the new data field: "Violation Date" b. Type: <code>MAKEDATE([Violation Year], [Violation Month], 1)</code> c. Click OK 3. Under Dimensions, find the new date field "Violation Date"



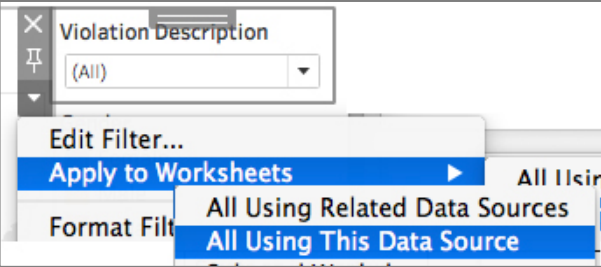
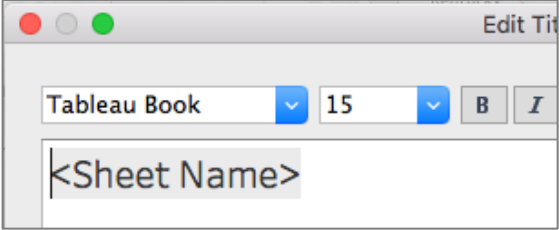
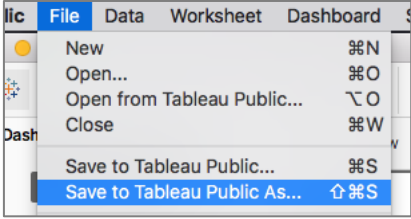
5	Why create a new data field	<ol style="list-style-type: none"> Under Measures, double click on Number of Records. See it appear in the Rows shelf. Under Dimensions, double click on Violation Year <ol style="list-style-type: none"> Can only see aggregated amount for 2014 Under Dimensions, double click on Violation Month <ol style="list-style-type: none"> Adds a second graph using numerical labels for the month Delete Violation Year and Violation Month from the Columns shelf. Double click on Violation Date <ol style="list-style-type: none"> Click the + sign in the pill; will automatically breakdown the data by quarter Click the + sign in the Quarter pill; will automatically break down the data by month 	
6	Create a bar chart: Number of violations by day of the week	<ol style="list-style-type: none"> Create and name a new sheet: "By Day" Under Measures, double click on Number of Records. Will go to Rows Under Dimensions, double click on Violation Day of the Week. Will go to Columns. 	
7	Create a stacked bar chart: Number of violations by day of the week and by gender	<ol style="list-style-type: none"> Under Dimensions, find Gender Under Marks, find Color Drag Gender to the Color box 	
8	Update the legend	<ol style="list-style-type: none"> Under Dimensions, click on Gender From the menu, select Aliases... Under Value(Alias), click on a cell and enter a descriptive name for the element. 	

9	Sort the bar chart	<ol style="list-style-type: none"> Use the tool bar to sort the bar chart: <ol style="list-style-type: none"> Ascending order Descending order Swap Columns and Rows Clear the sort 															
10	Create a Treemap: Violations by age	<ol style="list-style-type: none"> Under Measures, double click on Number of Records. Will go to Rows Convert Age at Violation to a Dimension <ol style="list-style-type: none"> Click on Age at Violation pill From the menu select Convert to Dimension Under Dimensions, double click on Age at Violation Click on Show Me and select Treemap 															
11	Create a Treemap: Violations by age and gender	<ol style="list-style-type: none"> Under Dimensions, find Gender Under Marks, find Color Drag Gender to the Color box Click on organization "gender" and click Exclude 															
12	Create a Map: Tickets issued to not New York State drivers	<ol style="list-style-type: none"> Create and name a new sheet: "Map" Under Dimensions, click on State/Province Click Show Me and select Filled Map <ol style="list-style-type: none"> 3 Unknowns 															
13	Create a Map: clean unknown data points	<ol style="list-style-type: none"> Click on "19 unknowns" Select Edit Locations... <ol style="list-style-type: none"> Unrecognized data comes from non-geographic data <p>**Example dataset has been cleaned. Making a map with the original data will create more unknowns. Might be fun to play with!</p>	 <table border="1" data-bbox="1346 1214 1955 1421"> <thead> <tr> <th colspan="2">Match values to locations</th> </tr> <tr> <th colspan="2">⚠ State/Province ⚠ Country/Region</th> </tr> <tr> <th>Your Data</th> <th>Matching Location</th> </tr> </thead> <tbody> <tr> <td>FOREIGN LICENSE</td> <td>Unrecognized</td> </tr> <tr> <td>Null</td> <td>Unrecognized</td> </tr> <tr> <td>UNKNOWN</td> <td>Unrecognized</td> </tr> <tr> <td>ALABAMA</td> <td>Alabama</td> </tr> </tbody> </table>	Match values to locations		⚠ State/Province ⚠ Country/Region		Your Data	Matching Location	FOREIGN LICENSE	Unrecognized	Null	Unrecognized	UNKNOWN	Unrecognized	ALABAMA	Alabama
Match values to locations																	
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FOREIGN LICENSE	Unrecognized																
Null	Unrecognized																
UNKNOWN	Unrecognized																
ALABAMA	Alabama																



14	Create a Map: Use color to show number of violations	<ol style="list-style-type: none"> Under Measures, find Number of Record Under Marks, find Color Drag Number of Records to Color <ol style="list-style-type: none"> NY is over-represented; change thresholds to make visualization more meaningful Hover mouse over states to find the next highest violation states; use that number as a threshold Under Marks click on Color, then select Edit Colors... Click Advanced >> Change the End field to the new threshold Click OK 	
15	Create a Map: Filter by Violation type	<ol style="list-style-type: none"> Under Dimensions, drag Violation Description to Filters In the dialog box, select All and click OK Under Filters, click on Violation Description <ol style="list-style-type: none"> Select Show Filter from the menu Click the menu button in the Violation Description legend <ol style="list-style-type: none"> From the menu select Single Value (dropdown) 	
16	Create an interactive dashboard	<ol style="list-style-type: none"> Click on the Add Dashboard button to go to the dashboard creation page Double click on the “Dashboard 1” tab to rename it Under Sheets, find your worksheets and drag them to the main panel Adjust the dashboard Size and visualization locations 	



17	Create an interactive dashboard: create global filters	<ol style="list-style-type: none"> 1. Click the menu button on a filter 2. Select Apply to Worksheets, then select All Using this Data Source 	 <p>A screenshot of a Tableau filter menu for 'Violation Description'. The menu is open, showing options: 'Edit Filter...', 'Apply to Worksheets', 'Format Filter...', 'All Using Related Data Sources', and 'All Using This Data Source'. The 'Apply to Worksheets' option is highlighted in blue, and its sub-menu is also visible, showing 'All Using This Data Source' as the selected option.</p>
18	Create an interactive dashboard: Edit dashboard visualization titles	<ol style="list-style-type: none"> 1. Click on a title to bring up the Edit Title dialog box 2. Provide a descriptive title for each visualization 	 <p>A screenshot of the 'Edit Title' dialog box in Tableau. It shows a dropdown menu for 'Tableau Book', a dropdown for '15', and buttons for 'B' and 'I'. Below these is a text input field containing '<Sheet Name>'.</p>
19	Save your work	<ol style="list-style-type: none"> 3. In the File menu select Save to Tableau Public As... 4. Login to your Tableau Public Account 5. Provide a name for the workbook and click Save. 6. Your workbook and data will be publicly available on Tableau Public 	 <p>A screenshot of the Tableau 'File' menu. The 'Save to Tableau Public As...' option is highlighted in blue. Other visible options include 'New', 'Open...', 'Open from Tableau Public...', 'Close', 'Save to Tableau Public...', and 'Save to Tableau Public As...'.</p>
20	Next steps: on your own, in pairs, or in small groups...	<ul style="list-style-type: none"> • Create a new visualization to add to the dashboard <ul style="list-style-type: none"> ○ Explore the data ○ Pick a visualization type ○ Try adding color, size, etc. ○ Try adding a filter ○ Try adding additional shape and/or data layers to a map • Find your own data set and explore! <ul style="list-style-type: none"> ○ http://data.ny.gov ○ https://www.data.gov/ 	

