**Tableau Mapping Lab**

**Visualizing Foodie Fantasy**

This workbook is intended to introduce you to mapping in Tableau using a fictional foodie's fantasy restaurant list. A "foodie" is a colloquial term used to describe *a person that spends a keen amount of attention and energy on knowing the ingredients of food, the proper preparation of food, and finds great enjoyment in top-notch ingredients and exemplary preparation* (http://www.urbandictionary.com/)

This data set was generated using publicly available information about different restaurants around the world. This data set is not guaranteed to be accurate, and was created specifically for purposes of visualizing using Tableau.

**Notes**

- You must be online when you're working with (online) maps in Tableau, otherwise the map tiles will not be rendered

- It is important to know how to pan and zoom in a map. You can view the icons and pointers here:

http://onlinehelp.tableausoftware.com/v8.0/server/en-us/help.htm#zoom.htm

**Directions**

Directions for each exercise are contained in a caption. If the caption is long, you can click on the caption area and scroll down to see the rest of the instructions. You can also hide the caption to increase your workspace by clicking on the Caption title dropdown and selecting Hide Card. If you wish to show the caption again, you can bring it back by clicking on the the Worksheet menu > Show Caption.

**Where does Harry want to go?**

Your best friend Harry is a foodie, and he has been collecting information about restaurants he wants to visit. He has been planning several foodie trips throughout the world, and wants you to help him decide which trip to go on first by showing him the geographic distribution of his desired restaurants.

**1.** Double click on **Country** dimension. This will place **Latitude (generated)** in the Rows shelf and **Longitude (generated)** and the Columns shelf

**2.** Drag the **Number of Records** measure to color

**3.** Edit the Color legend by clicking on the top right side of the legend border

 Choose the Red Blue Diverging color palette

 Click OK when done.

**4.** Click on Map menu > Background Maps > WMS Servers ...

 In the WMS Server Connections, click on Add.

 Type the following in the URL:

 http://www2.demis.nl/wms/wms.asp?wms=WorldMap&

 Click OK, and then Close, when done

**5.** Click on the Map menu again, and this time choose "World Map" instead of the default "Online"

**6.** Click on the Map menu again, and select Map Options...

 This should display Map Options window on the left hand side. Check the following:

 - Bathymetry, Countries, Topography, Hillshading, Coastlines

**7.** Close Map Options by clicking on that window's right border X when done

**What is the distribution of Michelin star restaurants?**

Harry wants to see what proportion of Michelin star restaurants are in each country he is planning to visit.

**1.** Double click on **Country** dimension. This will place **Latitude (generated)** in the Rows shelf and **Longitude (generated)** and the Columns shelf

**2.** Drag the **Number of Records** measure to Color

**3.** To keep the color scheme consistent with the first workbook, edit the color legend by clicking on the top right side of the legend border

 Choose the Red Blue Diverging color palette

 Click OK when done.

**4.** Ctrl + Drag the **Latitude (generated)** pill from the Rows shelf to the Rows shelf. This creates a second copy of the **Latitude (generated)** pill

**5.** Select the *second* **Latitude (generated)** card that was created under the Marks card. This card corresponds to the pill you just created in the previous step

**6.** On the *second* **Latitude (generated)** card, drag the **Has Michelin** dimension to Color

**7.** On the *second* **Latitude (generated)** card, right click drag the **Has Michelin** dimension to Angle. Choose CNT(Has Michelin) when prompted

**8.** Click on the right edge of the second **Latitude (generated)** pill in the Rows shelf to show the dropdown, and select Dual Axis

**9.** Drag the **Region** dimension to the Pages shelf. Now you can click on the < or the > to go display different regions

**What is Japan Trip itinerary like?**

Harry already planned his trips and already marked the restaurants he wants to visit in sequence. He asks if you can visualize his first trip (Japan Trip) for him using Tableau.

Note: for this exercise, we will be using the **Latitude** and **Longitude** measures that are not pregenerated in Tableau. These measurements will allow us to pinpoint the precise location of the restaurants. Using the pregenerated Latitude and Longitude measures would only allow us to go as deep as the most granular dimension - in this case, **City**.

**1.** Drag **Latitude** measure to Rows shelf

**2.** Drag **Longitude** measure to Columns shelf

**3.** Drag the **Trip Name** to Filter

 This opens a Filter dialog box

 Choose Japan Trip, and click OK when done

**4.** Drag **Restaurant Name** dimension to Label. This shows us each restaurant's location plotted by latitude and longitude

**5.** Because the restaurants are so close together, our zoom level is too deep to be able to pull a map of it. Zoom out using the controls in the upper left of the map

**5.** Change the Marks type from Automatic to Line

**6.** Drag the **Order of Visit** measure to Path

**7.** Drag the **Order of Visit** measure to Label

**8.** Click on Map -> Map Options

**9.** Turn on "Streets and Highways"

**Areas to visit near Shibuya**

Harry has a friend who lives near the Shibuya station who he wants to visit. He also wants to visit nearby areas. He asked you to help visualize nearby tourist areas he can visit. He also want to know where these areas are relative to the subway stations.

**1.** Use the data called Tourist Spots (Foodie Trip.xlsx) for this worksheet by selecting it from the data window

**2.** Download the Tokyo Subway map from http://bit.ly/japansubway. Save this on your local drive

**3.** Click on the Map menu > Background Images > Tourist Spots (Foodie Trip.xlsx)...

**4.** Click on Add Image...

 Name: Tokyo Subway

 File or URL: navigate to where you saved the subway map

 X Field: x

 Left: 0

 Right: 100

 Y Field: y

 Bottom: 0

 Top: 60

 Washout: slide this to about 50%

 Click OK when done

**5.** Drag x measure to Columns and y to Rows

**6.** Right click on the x pill and y pill, and change the Measure from Sum to Average for both pills

**7.** Drag Name dimension to Label

**8.** Drag Comment to Tooltip

**9.** Edit the tooltip by clicking the Tooltip shelf and remove the x and y values so they don't show up when you hover over that area

**10.** Click on the Worksheet menu, and select Actions > Add Action > URL and use the following values:

 For anything in angled bracket, use the "Insert" dropdown menu to select the actual fields.

 Name: Check < Name> Area in Google Maps

 Run Action on: Menu

 URL: https://maps.google.com/maps?q=< Name>,+Tokyo,+Japan&hl=en

 Click OK, then another OK, when done.

**11.** Test your custom map by hovering over the marked areas