

## **WorkShop5**

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## **WorkShop5**

### Instructions:

- The workshop can be completed in **group of four (recommended)**.
- All members should work together to complete the workshop and they will receive the same mark.
- This workshop is worth 2.5% of the total course grade and will be evaluated through your written submission.
- Please submit the submission file(s) through Blackboard.
- **Only one person must submit for the group and only the last submission will be marked.**

## WorkShop5

### Part One: Scatterplot

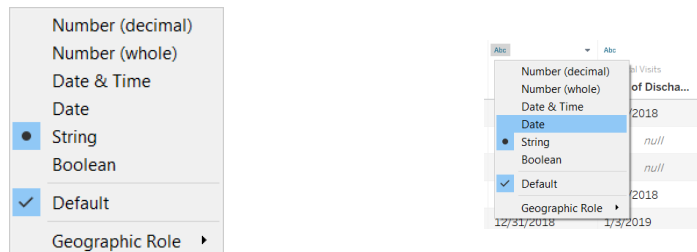
A scatterplot is an essential visualization type for understanding the relationship between two measures.

**Step1.** Download [Hospital Visits.xlsx](#) from blackboard.

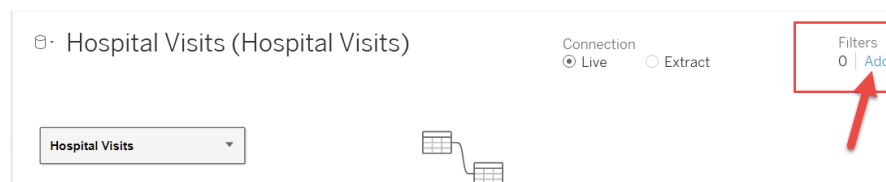
**Step2.** Open Tableau Desktop, and then connect to Microsoft Excel file

**Step3.** Create new worksheet and named it “[Scatterplot](#)”.

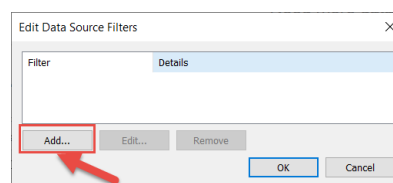
**Step4.** First Change the date type of dimensions “Date of Admit” and “Date of Discharge” from **String** data type to **Date** data type.



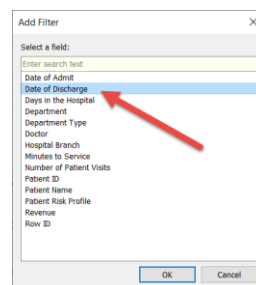
**Step5.** Create data filter to remove all the rows that contain null in the “Date of Discharge”, Click on **Add**.



The, Add again

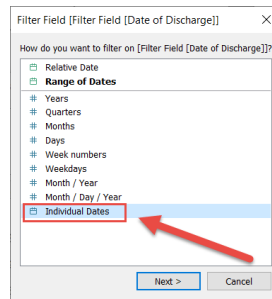


Select the “Date of Discharge”, then ok.

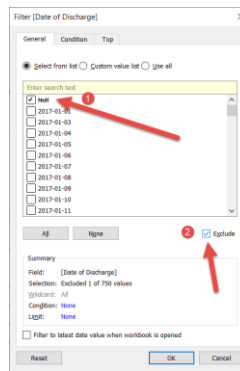


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Select “Individual Dates”, then Next



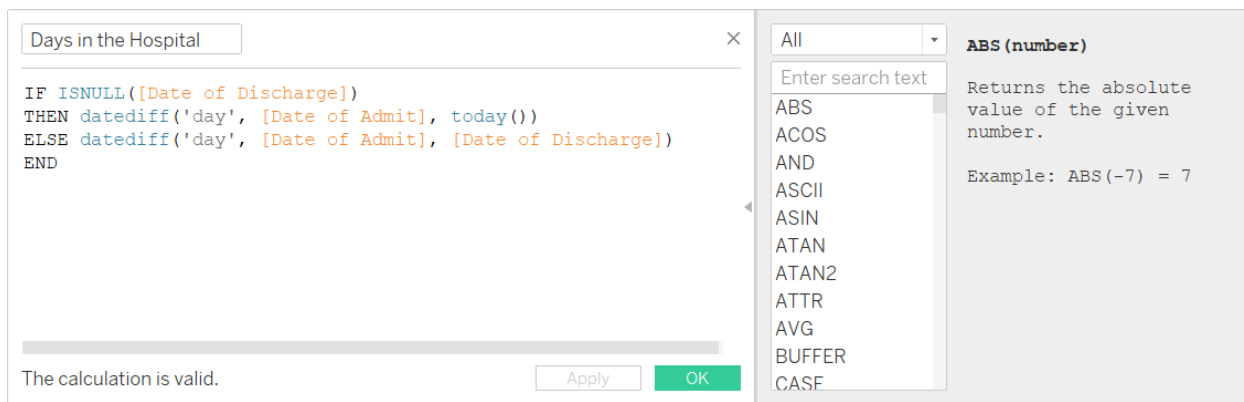
Exclude Null from your date.



Verify that you do not have any null in “Date of Discharge” column.

**Step6.** Create calculated Field and name it as “Days in the Hospital” as shown below

a. Check the newly create date field by going to Data source Tab.



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**Step7.** Create a scatterplot shows a relationship between the **average minutes to service** and **the average number of days spent in the hospital**, broken down by **department type** and **doctor**

Hints:

- The dimensions of **Department Type** and **Doctor** on the Marks card define the view level of detail.
- Use **Department Type** for color
- Use **Doctor** for detail.
- Use **"Sum (Number of Patient Visits)"** for Size
- Now, each mark in the view represents **the average minutes to service** and **average days in the hospital** for patients seen by a doctor in a department type and the Size of each circle indicates the total number of patients seen by that doctor.

**Step8.** Add your **group member name** to the Title

- b. Font size for First line in the title is 20 and type is Tableau Light

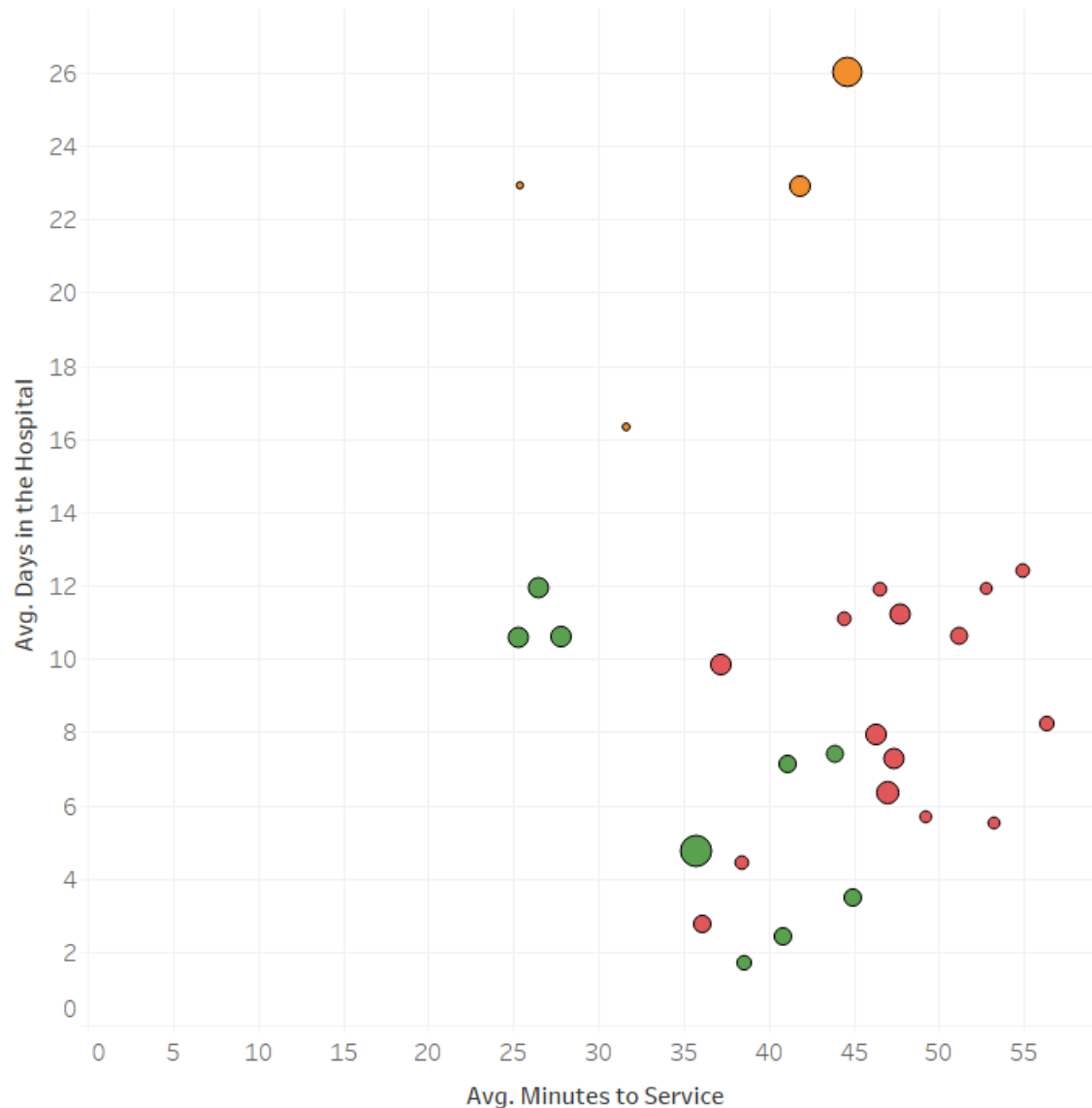
**Step9.** Save your tableau file as **WS05\_A.twbx**.

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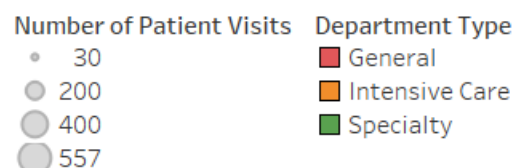
**Question 1.** Copy and Paste the created [Scatterplot](#) here. Replace the figure below.

# Avg. Minutes to Service and Avg. Days in the Hospital

Group 3



Average of Minutes to Service vs. average of Days in the Hospital. Color shows details about Department Type. Size shows sum of Number of Patient Visits. Details are shown for Doctor.



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### Part Two: Watch Video about Maps in Tableau

Watch the video available at <https://www.tableau.com/solutions/maps> as an overview of maps in Tableau. In the next parts of this workshop, you will create some basic maps.

### Part Three: Proportional Symbol Map

**Step1.** Download the date source “data-science-colleges.csv” from this link

<https://github.com/ryanswanstrom/awesome-datascience-colleges>

**Step2.** Open Tableau Desktop> Choose Open > File and select the downloaded “data-science-colleges.csv”

**Question 2.** Which data columns have the globe (geo-data) symbol? 🌐

Ans: Country, State, City

**Step3.** Go to worksheet “Sheet1” and change name to “**Proportional Symbol Map**”. Note that there are two measures generated: **Latitude** and **Longitude**. These were not in the data source itself, and were generated for the geo-data available in the data source. Double click these two measures to build a map. **Note that Longitude will be located on Columns card and Latitude will be located on Rows card.**

**Step4.** Note under Dimensions, there is a hierarchy of geo-data created: **Country, State, City**. To see data at the city level, drag City from this hierarchy on to the Detail card. You will see a data point on the map, for the cities which have data science programs.

**Step5.** To get a more compact view, right click the data points in **Hawaii, Hilo**, and one data point in **Spain**, and choose Exclude. Also, **click on ‘48 unknown’ message on the lower right side of the worksheet and choose ‘Filter Data’.**

**Step6.** To use size to encode the number of programs in each city, drag ‘Number of Records’ measure on to the Size card. Now you have a ‘**Proportional Symbol Map**’.

**Step7.** Drag the ‘Degree’ dimension on to the Color card. On the legend, right click A (Associate) and C (Certificate) and choose Exclude. Now your map is color coding the **Bachelor**, **Masters**, and **Doctorate** programs.

**Step8.** Change title by adding your group member name to title

- Font size for First line in the title is 20 and type is Tableau Light
- Do not forget to hide the y-axis.

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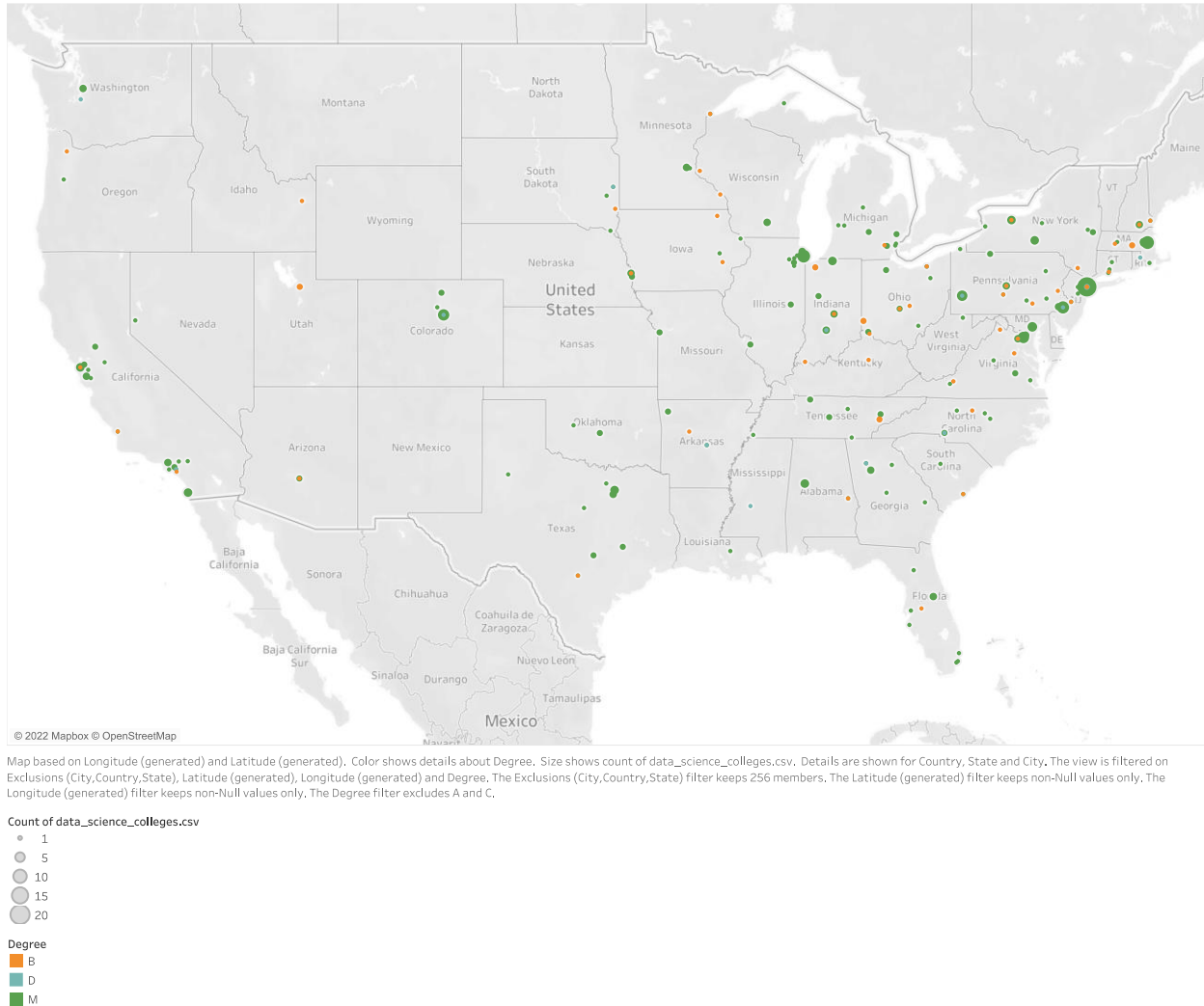
**Step9.** Save your tableau file as [WS05\\_B.twbx](#).

**Step10.** Copy and Paste the created [Scatterplot](#) here. Replace the figure below.

**Question 3.** Copy and Paste the created **Chart** here. Replace the figure below.

Proportional Symbol Map

Group 3





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### Deliverables:

#### SENECA'S ACADEMIC HONESTY POLICY

As a Seneca student, you must conduct yourself in an honest and trustworthy manner in all aspects of your academic career. A dishonest attempt to obtain an academic advantage is considered an offense and will not be tolerated by the College.

Add this declaration to your submission file:

I/WE, members of Group 3, declare that the attached assignment is our own work in accordance with the **Seneca Academic Honesty Policy**. I/We do not copy any part of this assignment, manually or electronically, from any other source including web sites, unless specified as references. I do not distribute my work to other students.

	Name	Task(s)
1	Chahat Kaur Chhabra	Question 1
2	Kajal Rajan	Question 2
3	AmandeepSingh Saluja	Question 3
4	Mahesh Kumar Amda	Question 3

### Using Blackboard, submit the following files

1. Report as Pdf file
2. WS05\_A.twbx
3. WS05\_B.twbx

Save your group work as

<GroupName>\_ws5.???