Seneca | SCHOOL OF SOFTWARE
DESIGN & DATA SCIENCE

WorkShop6

Contents

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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**.

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Part One: Introduction

Line Graphs:

The line graph is an excellent tool to visualize change over time. Although this is feasible with a bar graph, the changing trends over time are not as easy to interpret.

Line graph formatting guidelines:

- ➢ Ensure data types of data fields are correctly assigned
- ➢ Remove excess white space by shrinking y-axis interval
- ➢ Employ color to pertinent categories
- ➢ Add axis labels as necessary
- ➢ Title that states a call to action
- ➢ Remove or light gray gridlines
- ➢ Use gestalts principle and remove clutter

For more infromation read posts "3 Ways to Make Lovely Line Graphs in Tableau"

Bar graphs:

The bar graph is one of the most important tools in the data visualization toolbox. The human brain can easily compare height, resulting in fast and simple interpretation of what the data represents, so it is important to understand how to create compelling and easily readable bar graph visualizations.

Bar graph formatting guidelines:

- ➢ Ensure data types of data fields are correctly assigned
- ➢ Decrease bar height due to low variance (difference in bar height) between each bar
- ➢ Change decimals to percent via Default Properties > Number Format
- ➢ Add title, remove redundant Location header
- ➢ Axis rulers for both rows and columns are set to 'none'
- ➢ Columns: Zero lines and grid lines are set to 'none'
- ➢ Decrease slightly graph horizontal size
- ➢ Increase slightly graph vertical size

For more information Watch my video tutorial on bar graph formatting in Tableau.

For more infromation read posts "3 Ways to Make Beautiful Bar Charts in Tableau"

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Part Two: Line Graphs: Apply Pre-Attentive Attributes to your Line Graph

Line graph of **Years** vs. **Average Life Expectancy**

Step1. Download **LifeExpectancy.xlsx** from blackboard.

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

Step3. Select Columns to be Years

Step4. Select rows to be Life expectancy

Step5. Select between 10 and 15 countries of your choice to compare with the **United States** and **World** data.

Step6. All formatting, such as color for visual cues and simplistic design principles must be complete

Step7. Add your **group member name** to the Title

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

**Step8.** Save your tableau file as **WS06_A.twbx**.

Hint:

➢ **Pay attention to data-to-ink ratio**
➢ **Add any annotation or labeling that can help you.**

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Question 1. Copy and Paste the created **Line Graphs** here. Replace the figure below.

Average Life Expectancy of Various Countries (1960-2009)
Group 3

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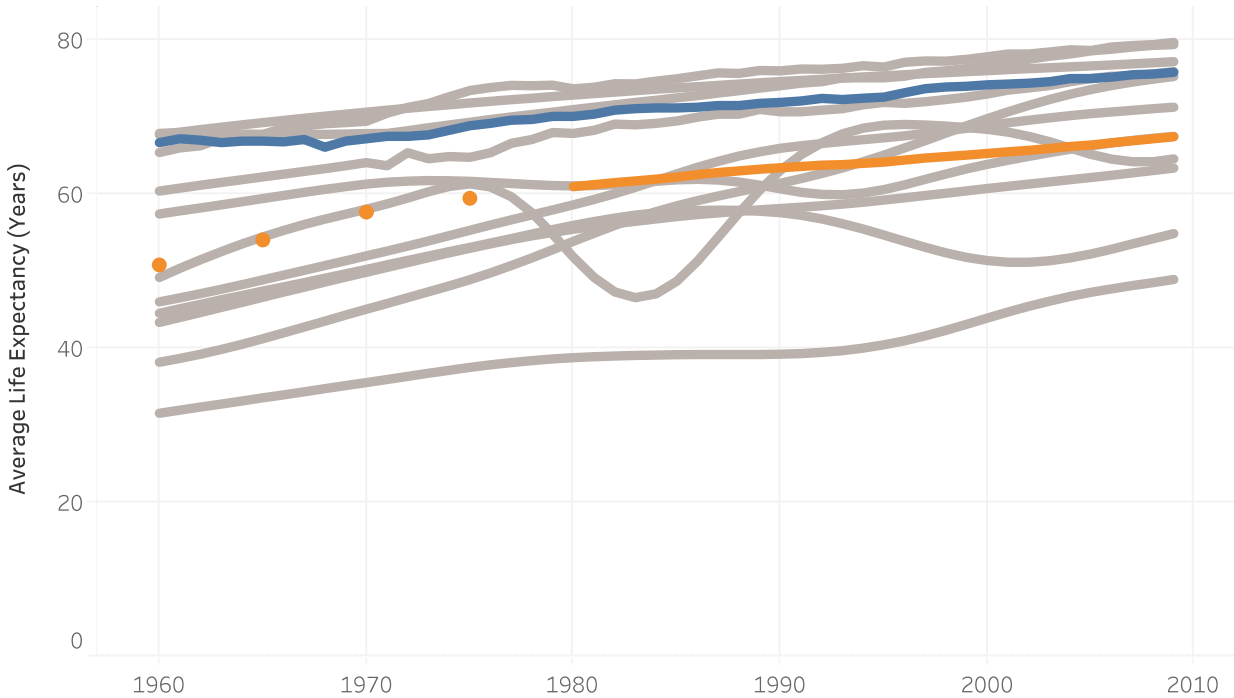
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Part Three: Horizontal Bar Chart: Apply Pre-Attentive Attributes to your Bar Chart

Step1. Download **ITticketsbylocationmonthfor2017.xlsx** from blackboard.

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

Step3. Select one month from 2017 year.

Step4. Create calculate field "**Percentage Tickets Processed**" to show the percentage of Ticket Volume processed / Ticket Volume Received ratio.

Step5. Change the calculated field properties to percentage with zero decimal places.
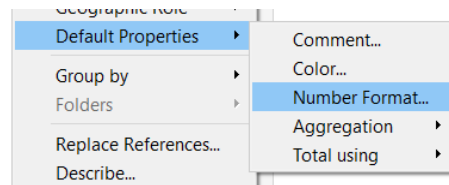
Step6. Create **horizontal bar chart** to show **Location vs. percentage tickets processed. Given the Month you selected in step3**

➢ Columns: Processed / received ratio. Rows: Location

Step7. Create a custom reference line "**Target**" using create parameter option. If the location has 60% or more percentage of tickets processed, then this location meet the target.
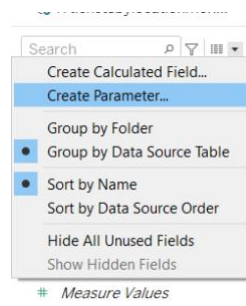
Step8. Color: all the Locations passed the target (60%) as red. All other locations light gray

➢ To do this you need calculated field.

Step9. All formatting, such as color for visual cues and minimalistic design principles must be complete.

Step10. Add your group member name to the Title

➢ Font size for First line in the title is 20 and type is Tableau Light
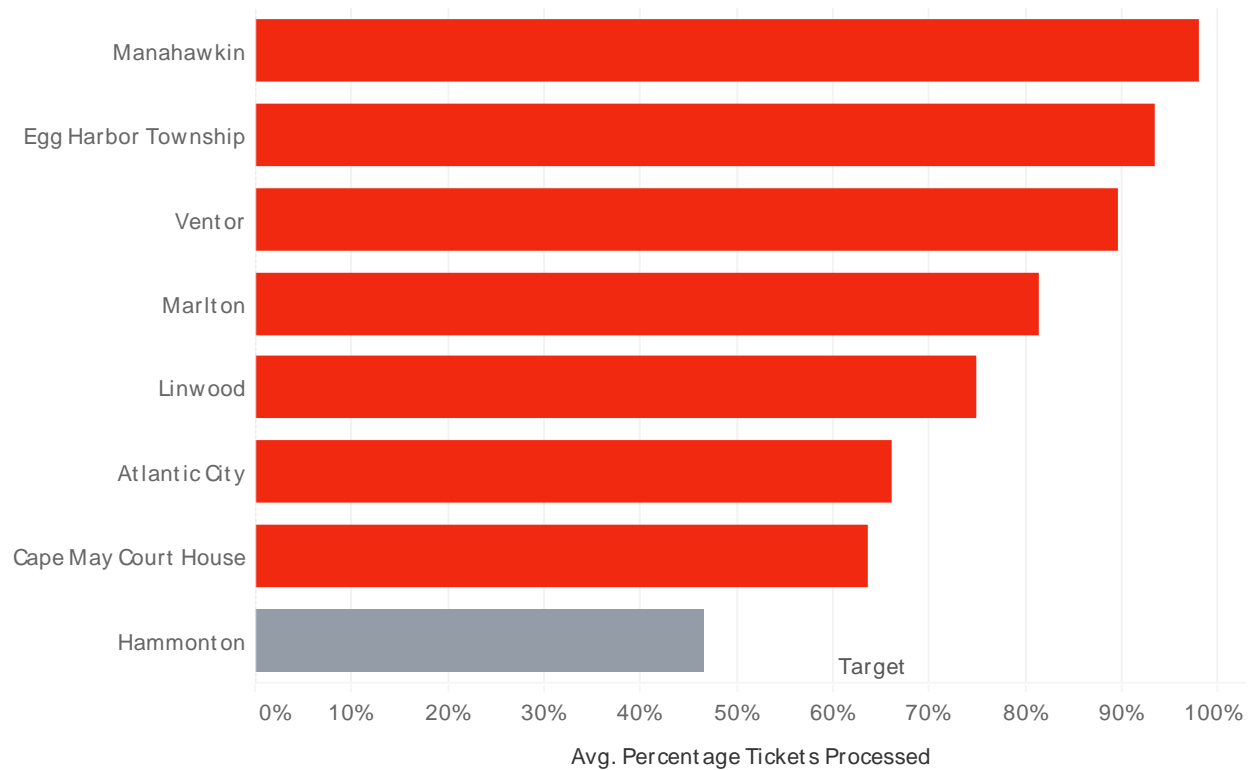
Step11. Save your tableau file as **WS06_B.twbx.**

Hint:

➢ **Pay attention to data-to-ink ratio**
➢ **Add any annotation or labeling that can help you.**
➢

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Question 2. Copy and Paste the created **Bar Chart** here. Replace the figure below.

IT locations Processed by locations for March 2017
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, ------------ (mention your names), 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	Mahesh Kumar Amda	Part 2
2	Amandeep Singh	Part 2
3	Chahat Kaur Chhabra	Part 1
4	Kajal Rajan	Part 1

Using Blackboard, submit the following files

1. **Report as Pdf file**
2. **WS06_A.twbx**
3. **WS06_B.twbx**

Save your group work as

<**GroupName**>_ws6.???