

Bellevue University

M7 – Graphing

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DSC310-T301

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Symbol Map

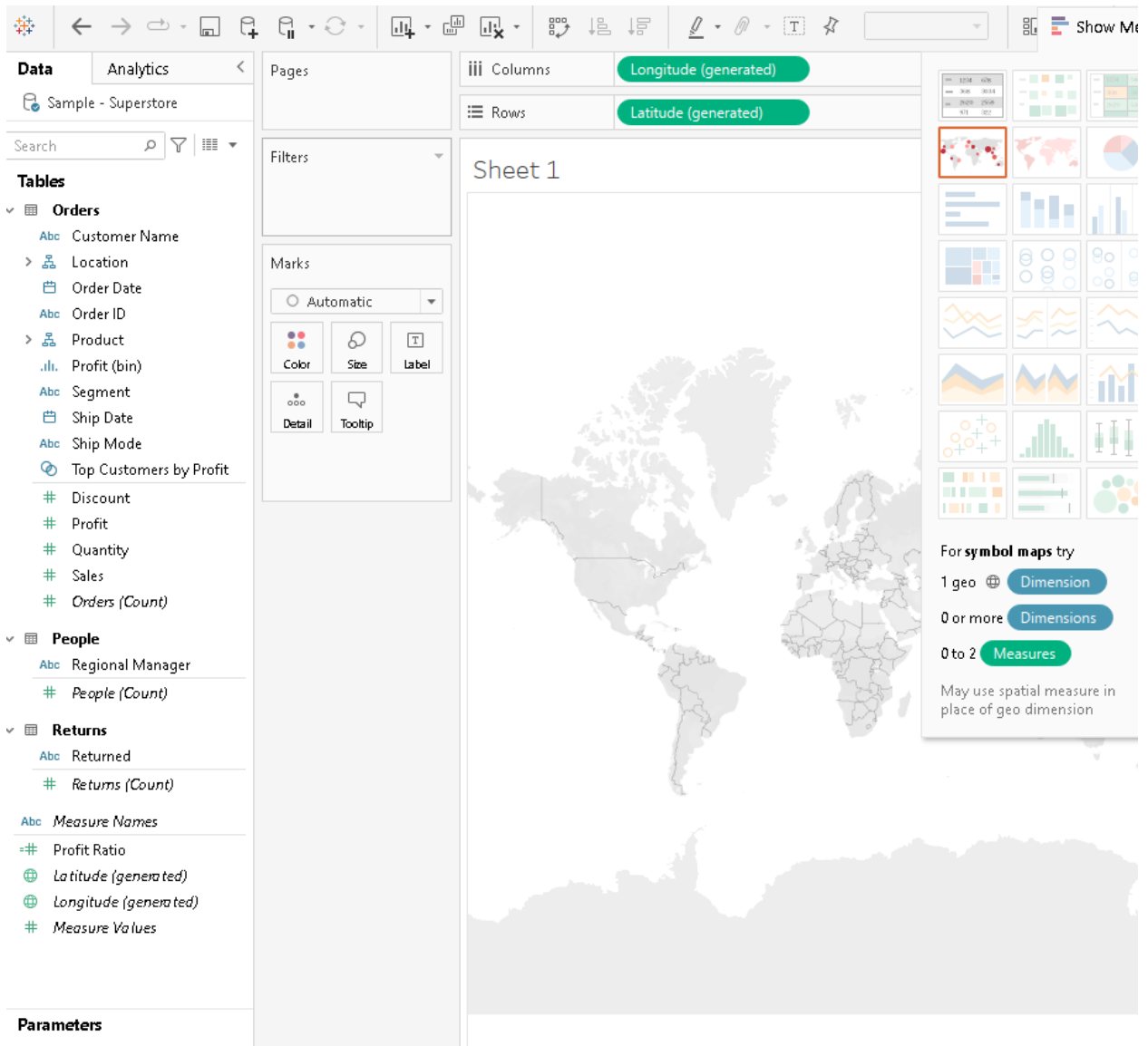
The screenshot displays the RStudio interface with three main panels:

- Source Editor:** Contains an R script with the following code:

```
1 library(ggplot2)
2 library(GGally)
3 library(CGPFfunctions)
4 library(leaflet)
5
6 data(trees)
7
8 m <- leaflet() %>%
9   addTiles()
10
11 m
12 |
```
- Environment Panel:** Shows the Global Environment with a table of variables and their values:

Variable	Class	Values
animal	chr [1:3]	"Cat" "dog" "Bird"
animals	chr [1:5]	"Rabbit" "Bird" "Squirr..."
animalsInNa...	num [1:5]	15 33 59 70 43
condition	chr [1:9]	"Big" "small" "Medium" ...
group	chr [1:5]	"Cat" "dog" "Bird" "Squ..."
lab1974	chr [1:8]	"4,21" "4,21" "1,22.8" ...
lab1976	chr [1:8]	"21,4" "21,4" "22.8,1" ...
labels	chr [1:5]	"Birch" "Oak" "Pine" "A..."
numberOfAni...	num [1:5]	39 43 22 13 10
size	chr [1:9]	"Big" "small" "Medium" ...
specie	chr [1:9]	"Cat" "Cat" "Cat" "Dog" ...
treeHeights	num [1:5]	15 33 59 70 43
trees	<Promise>	
- Console:** Shows the execution of the script:

```
> library(CGPFfunctions)
> library(leaflet)
>
> data(trees)
>
> m <- leaflet() %>%
+   addTiles()
>
> m
> library(ggplot2)
> library(GGally)
> library(CGPFfunctions)
> library(leaflet)
>
```
- Viewer Panel:** Displays a world map with a light blue background and white landmasses.



Choropleth

```

RStudioGraphM3.R
Source on Save Run Source
1 library(ggplot2)
2 library(ggally)
3 library(cgpfunctions)
4 library(leaflet)
5
6 data(trees)
7
8 geojson_file <- "C:/Users/mstga/OneDrive/Desktop
/Bellevue/DataAnalysisAndVisualization/Module7/world
.geojson"
9
10 my_sf <- read_sf(geojson_file)
11
12 names(my_sf)
13
14 my_sf <- my_sf[substr(my_sf$NAME, 1, 2) == "An", ]
15
16 map <- leaflet() %>%
17   addTiles() %>%
18   addPolygons(data = my_sf,
19               fillColor = "blue",
20               fillopacity = 0.4, |
21               color = "black",
22               stroke = TRUE, popup = ~NAME
23             )
24
25 map

```

20:35 [Top Level] R Script

```

Console Terminal Background Jobs
R 4.4.0 ~/
> dataAnalysisAndVisualization/Module7/world.geojson"
>
> my_sf <- read_sf(geojson_file)
>
> names(my_sf)
[1] "NAME" "NAME_LONG" "ADM0_A3" "ISO_A2"
[5] "ISO_A3" "WB_A2" "WB_A3" "geometry"
>
> my_sf <- my_sf[substr(my_sf$NAME, 1, 2) == "An", ]
>
> map <- leaflet() %>%
+   addTiles() %>%
+   addPolygons(data = my_sf,
+               fillColor = "blue",
+               fillopacity = 0.4,
+               color = "black",
+               stroke = TRUE, popup = ~NAME
+             )
>
> map

```

Environment

History

Connections

Tutorial

Import Dataset

546 MiB

List

R

Global Environment

geojson_file

chr [1:4]

"C:/Users/mstga/OneDrive/Desktop/...

geojson_Fil...

chr [1:5]

"Cat" "dog" "Bird" "Squ...

group

chr [1:8]

"4,21" "4,21" "1,22.8" ...

lab1974

chr [1:8]

"21,4" "21,4" "22.8,1" ...

lab1976

chr [1:5]

"Birch" "Oak" "Pine" "A...

labels

num [1:5]

39 43 22 13 10

numberOfAni...

chr [1:9]

"Big" "Small" "Medium" ...

size

chr [1:9]

"Cat" "Cat" "Cat" "Dog" ...

specie

"C:/Users/mstga/AppData/Local/...

tmp_geojson

"C:/Users/mstga/AppData/Local/...

tmp_zip

num [1:5]

15 33 59 70 43

treeHeights

<Promise>

trees

"C:/Users/mstga/AppData/Local/...

unzip_dir

chr [1:69]

"C:/Users/mstga/Ann...

unzipped fi

Files

Plots

Packages

Help

Viewer

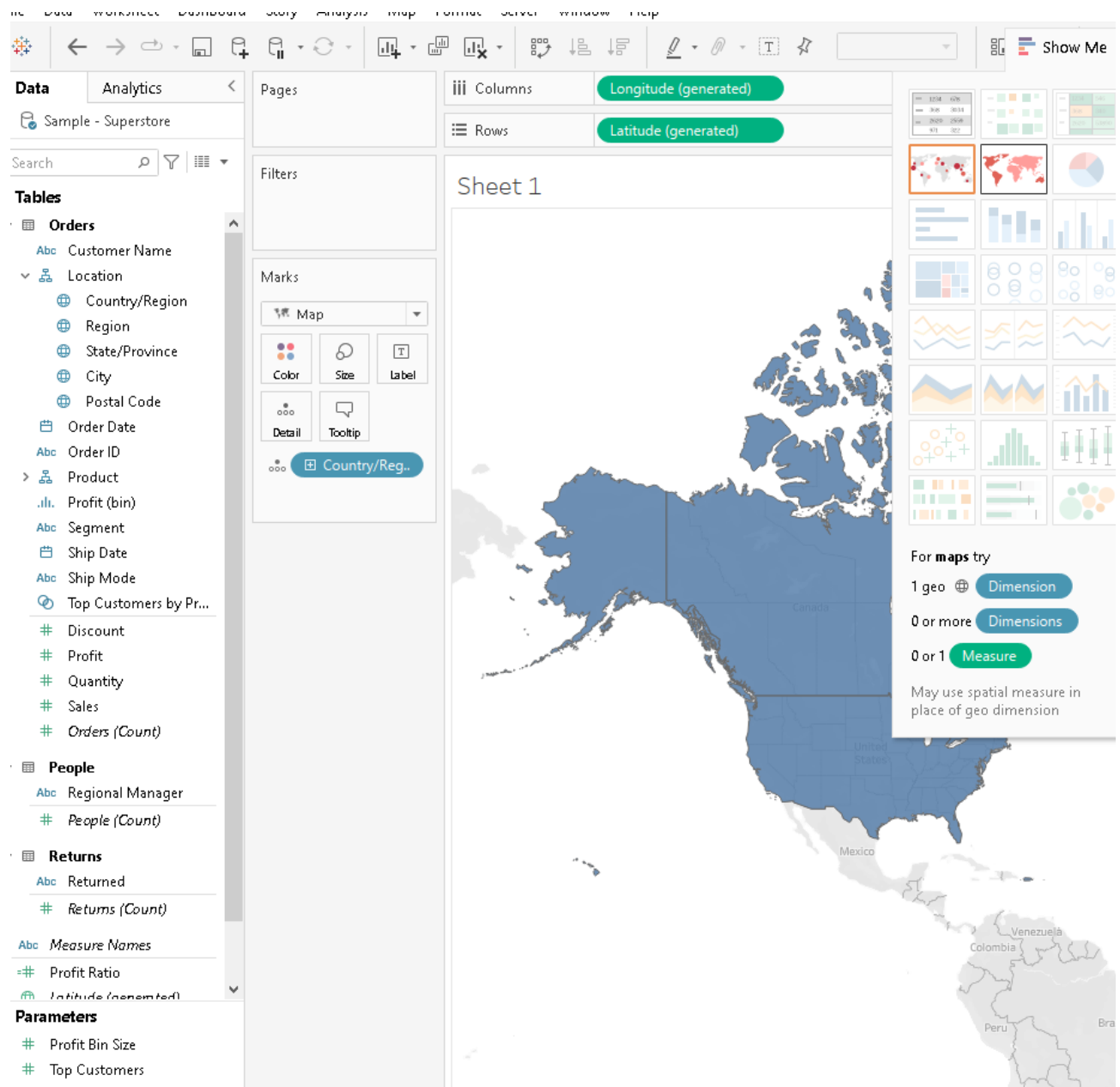
Presentation

Zoom

Export

+

-



Cartogram

```

RStudioGraphM3.R x
Source on Save Run Source
1 library(ggplot2)
2 library(GGally)
3 library(CGPfunctions)
4 library(leaflet)
5
6 data(trees)
7
8 geojson_file <- "C:/Users/mstga/OneDrive/Desktop
/Bellevue/DataAnalysisAndVisualization/Module7/world
.geojson"
9
10 my_sf <- read_sf(geojson_file)
11
12 names(my_sf)
13
14 my_sf <- my_sf[substr(my_sf$NAME, 1, 2) == "An", ]
15
16 ggplot() +
17   geom_sf(data = my_sf, aes(fill = NAME)) +
18   scale_fill_viridis_d() +
19   theme_void() +
20   labs(title = "Cartogram of Countries starting with
'An")

```

17:32 (Top Level) R Script

Console Terminal Background Jobs

```

R 4.4.0 ~ /
> library(leaflet)
>
> data(trees)
>
> geojson_file <- "C:/Users/mstga/OneDrive/Desktop/Bellevue/
DataAnalysisAndVisualization/Module7/world.geojson"
>
> my_sf <- read_sf(geojson_file)
>
> names(my_sf)
[1] "NAME" "NAME_LONG" "ADM0_A3" "ISO_A2"
[5] "ISO_A3" "WB_A2" "WB_A3" "geometry"
>
> my_sf <- my_sf[substr(my_sf$NAME, 1, 2) == "An", ]
>
> ggplot() +
+   geom_sf(data = my_sf, aes(fill = NAME)) +
+   scale_fill_viridis_d() +
+   theme_void() +

```

Environment	History	Connections	Tutorial
R - Global Environment			
geojson_file	"C:/Users/mstga/OneDrive/Desktop/...		
geojson_fil...	chr [1:4] "C:\\Users\\mstga\\AppD...		
group	chr [1:5] "Cat" "dog" "Bird" "Squ...		
lab1974	chr [1:8] "4,21" "4,21" "1,22.8" ...		
lab1976	chr [1:8] "21,4" "21,4" "22.8,1" ...		
labels	chr [1:5] "Birch" "oak" "Pine" "A...		
numberOfAni...	num [1:5] 39 43 22 13 10		
size	chr [1:9] "Big" "small" "Medium" ...		
specie	chr [1:9] "Cat" "Cat" "Cat" "dog"...		
tmp_geojson	"C:\\Users\\mstga\\AppData\\Loca...		
tmp_zip	"C:\\Users\\mstga\\AppData\\Loca...		
treeHeights	num [1:5] 15 33 59 70 43		
trees	<Promise>		
unzip_dir	"C:\\Users\\mstga\\AppData\\Loca...		
unzipped fi	chr [1:69] "C:\\Users\\mstga\\Ann...		

Files	Plots	Packages	Help	Viewer	Presentation
Zoom Export					

Cartogram of Countries starting with 'An

