

Microsoft: DAT209x Programming in R for Data Science

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■ Bookmark

Consider the following data:

The data consists of the names of the German 'Länder' and their populations as of December 31, 2014. Source: Statistiches Bundesamt, Germany.

Let's overlay a map of Germany with this information.

Question 1

8. Working with Data	(1/1 point) Install and/or load the ggplot2 and ggmap package before you proceed.
9. Manipulating Data	Next, examine my.data using the str() function. Notice that the länder are stored as factor. Convert these to character.
▶ 10. Simulation	Which command could you use to perform the task?
▶ 11. Linear Models	my.data\$federal.states<-is.character(my.data\$federal.states)
12. Graphics in RLecture	my.data\$federal.states<-as.character(my.data\$federal.states)
Knowledge Checks Quiz due Jun 27, 2016 at 23:30	my.data\$federal.states<-is.string(my.data\$federal.states)
UTC Ø	my.data\$federal.states<-as.string(my.data\$federal.states)
Lab due Jun 27, 2016 at 23:30 UTC	
► Course Wrap-up	EXPLANATION
	Question 2
	(1/1 point) Next, get the geocodes for the German länder.

Which command could you use to perform the task?

□ latlon <- get_map(my.data)

□ latlon <- get_map(my.data\$federal.states)

□ latlon <- geocode(my.data)

□ latlon <- geocode(my.data\$federal.states)

▼

EXPLANATION

Question 3

(1/1 point)

You will received 2 warning messages. The request for geocodes failed for "Baden-ürttemberg" and "Thüringen". This is because <code>geocode()</code> cannot handle the German 'umlaut' (¨). In particular when dealing with letters which aren't standard English, you should be a little careful with <code>geocode()</code>. We therefore handle two locations separately. For Baden-Württemberg, we simply remove the umlaut. For Thüringen, we remove the umlaut, but also specify that the location is in Germany. Otherwise <code>geocode()</code> will find a location in western Austria; you should also be careful with possibly multiple location names.

Which two commands you need to run to fix this issue?
my.data\$federal.states[0]<-"Baden-Wurttemberg"
my.data\$federal.states[15]<-"Thuringen Germany"
✓
EXPLANATION
Question 4
(1/1 point) Get the geocodes for the German länder again. This time you shouldn't receive any warning messages. Assign the two variables from latlon to my.data respectively. Which two commands could you use to perform the task?
my.data <- latlon

✓ my.data <- cbind(my.data,latlon) ✓	
my.data <- rbind(my.data,latlon)	
✓	
EXPLANATION	
Question 5	
(1/1 point) With this in place, proceed to get the geocodes of Germany and a raster map with a proper zoon factor.	
Which command could you use to perform the task?	
Germany <- ggmap(get_map(location=my.data,zoom=6), extent="panel")	
● Germany <- ggmap(get_map(location="Germany",zoom=6), extent="panel") ✓	

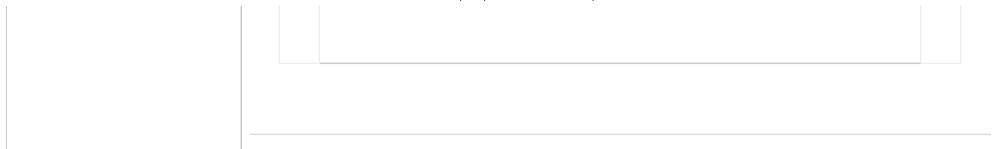
- Germany <- ggmap(get_map(location=Germany,zoom=6), extent="panel")</p>
- Germany <- ggmap(get_map(location=germany_center,zoom=6), extent="panel")</p>

EXPLANATION

Question 6

(1/1 point)

The last step is to overlay the map with the population sizes. Consider to set the following options: col for color, alpha for transparency, and size for the size of data according to the data frame's population.



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