Department for Sport and Health Sciences Technische Universität München



Self-Study R Course (SSRC)

Chapter 4: Data Visualization

Instructions

	Instructions	Resource	Comments
1.	Briefly check out the exercise sheet for chapter 4 to get an impression of what you need to learn/know to solve it.		
2.	Solve Tasks 1-7 of the exercise sheet.		Download and open the R -Script template that is provided on the SSRC website to insert your solutions in RStudio.
3.	Watch the following YouTube Video.	Video: An Introduction to Data Visualization	
4.	Do the "Exploratory Data Analysis" tutorial offered in the RStudio Cloud.	Tutorial: Exploratory Data Analysis	
5.	Solve Task 8 of the exercise sheet.		
6.	Do the "Bar Charts" tutorial offered in the RStudio Cloud.	Tutorial: Bar Charts	It is sufficient if you focus on the subchapters "Bar Charts" and "Aesthetics".
7.	Solve Tasks 9-10 of the exercise sheet.		
8.	Do the "Histograms" tutorial offered in the RStudio Cloud.	<u>Tutorial: Histograms</u>	It is sufficient to focus on the subchapter "Histograms".
9.	Solve Tasks 11-12 of the exercise sheet.		
10.	Watch the following Video.	<u>Video: Density Plots</u>	
11.	Solve Tasks 13-14		
12.	Watch the following Video.	<u>Video: Boxplots</u>	
13.	Solve Task 15		
14.	Watch the following Video.	<u>Video: Scatter Plots</u>	
15.	Solve Task 16		
16.	Watch the following Video.	<u>Video: Smoother</u>	
17.	Solve Task 17		
18.	Watch the following Video.	<u>Video: Draw Lines</u>	
19.	Solve Task 18		

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20.	Compare your solutions to the sample solution provided	
	at the SSRC website.	

Additional Resources:

<u>Cheat Sheet: Data Visualization</u> -> Nice overview on how to make plots with ggplot2

If you want to make your graphs more beautiful and understandable (e.g add a title, change colours), the following resources are recommended:

- <u>Tutorial: Customize Plots</u>
- Google!!!