NM2207: Computational Media Literacy

2023-08-31

```
Welcome! Go through the steps described below, carefully. It is totally fine to get stuck - ASK FOR HELP; reach out to your friends, TAs, or
the discussion forum on Canvas.
Here is what you have to do,
   1. Download Code-along.Rmd and hotels.csv files from Canvas and move it to the folder "Week-4" (see instructions for creating
      folder in Section I below)
   2. Open the video lectures and start listening to them
   3. Every time you come across a code chunk (inside shaded blocks) in the lecture video, Pause the video
   4. Edit the Code-along.Rmd file with the codes explained in the lecture videos within appropriate R chunk/code-block/shaded area
      (environment enclosed within "")
   5. Comments inside the R chunk/code-block/shaded area indicates which command explained in the lecture should be typed in there
   6. Set eval=TRUE to generate the output and verify it to the one shown in the lecture videos
```

7. **Knit** the file upon completion and submit the pdf document on Canvas **before** coming to the tutorial session

1. Create a new folder, "Week-4", inside "NM2207" folder you created last week

I. Preliminaries

2. Open R Studio

3. Go to the Files tab and open the folder, "Week-4", you just created

Code-along.Rmd* ×

Console Terminal × Background Jobs ×

Platform: x86_64-apple-darwin17.0 (64-bit)

R 4.2.1 · ~/Downloads/NVGit/CourseMaterial/week-1-Introduction/

Copyright (C) 2022 The R Foundation for Statistical Computing

R version 4.2.1 (2022-06-23) -- "Funny-Looking Kid"

Code-along.Rmd × Teaching.Rmd ×

Press the three horizontal dots highlighted in the Figure below

Browse and select "Week-4" folder that you created in the previous step, inside "NM2207" folder

week-2-Data&Visualization - main - RStudio

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☐ № Week-2_ Introduction to Data &... 8.9 MB

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Navigating folders
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Environment History Connections Git Tutorial

Environment History Connections Git Tutorial

ALWAYS PRESS HERE TO CREATE A NEW PROJECT

Open Project in New Session..

Environment History Connections

Teate a

week-2-Data&Visualization - main - RStudio

4. Set it as your working directory (shown in the Figure below)

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♦ Staged Status A Path Outline .DS_Store 50 1. Create a new folder, "Week-2", inside "NM2207" folder you created last week week-1-Introduction/.DS_Store week-2-Data&Visualization/Code-along.R 52
 week-2-Data&Visualization/Code-along.Rmd 53 week-2-Data&Visualization/Code-along.html 54 2. Open R Studio week-2-Data&Visualization/Final.Rmd 55
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 week-2-Data&Visualization/Teaching.Rmd week-2-Data&Visualization/Teaching.html 58 3. Go to the Files tab and open the folder. "Week-2", you just created week-2-Data&Visualization/Teaching_files/ 59
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 Plots Packages Help Viewer Presentation 62 4. Set it as your working directory (shown in the Figure below) Folder Blank File - Delete 🙀 Rename 🥻 🕹 dified 65 3. Create a new project, "Week-2", inside the folder you just created Copy To... 66
 Move... 67
 □ ^② Code-a g 15, 2023, 3:56 Pl Copy Folder Path to Clipboard 62:63 # I. Preliminaries \$ R Markdown \$ ☐ 💇 Code−a g 16, 2023, 2:41 Pi Console Terminal × Render × Background Jobs × ☐ ☐ Final_fil TOPEN Each File in New Columns R 4.2.1 · ~/Downloads/NVGit/CourseMaterial/week-2-Data&Visualization/ Final.htr g 14, 2023, 5:19 Pl The downloaded binary packages are in Set As Working Directory g 14, 2023, 5:19 Pl /var/folders/21/g7cpfl457z13mg0d8jtzsbzc0000gn/T//RtmpGEYZGm/downloaded_packages Go To Working Directory gains.sv n 12, 2023, 12:30 P > library("tidyverse") Synchronize Working Directory images Attaching core tidyverse packages tidyverse 2.0.0 -2.1.4 dplyr 1.1.2 readr Lecture g 11, 2023, 6:40 Pi ✓ forcats 1.0.0 ✓ stringr 1.5.0 libs Show Folder in New Window ✓ tibble 3.2.1 ✓ ggplot2 3.4.2 old ✓ lubridate 1.9.2 🗸 tidyr Show Hidden Files MD READM ✓ purrr 12. 2023, 12:30 P 1.0.1 tidyverse_conflicts() — — Conflicts — Teaching_files * dplyr::filter() masks stats::filter() Teaching.html Aug 15, 2023, 1:26 Pf 37.4 KB * dplyr::lag() masks stats::lag() 19.7 KB Aug 15, 2023, 12:41 I i Use the conflicted package to force all conflicts to become errors Week-2_ Introduction to Data &... 8.9 MB Jul 15, 2023, 7:18 PM Set as working directory 5. Now, create a new project and name it "Week-4"

week-1-Introduction - main - RStudio

```
week-5-Functions
 R is free software and comes with ABSOLUTELY NO WARRANTY.
                                                                                                                                         week-4-ManipulatingData
 You are welcome to redistribute it under certain conditions.
                                                                                                                                         week-3-Variables
 Type 'license()' or 'licence()' for distribution details.
                                                                                                                                         week-2-Data&Visualization 🔊
   Natural language support but running in an English locale
                                                                                                                                         week-6-Iterations
                                                                                                                                         Poster
 R is a collaborative project with many contributors.
                                                                                                                                         SICSS
 Type 'contributors()' for more information and
                                                                                                      Files Plots Packages Help View
 'citation()' on how to cite R or R packages in publications.
                                                                                                                                         week-8-Shiny
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 Type 'demo()' for some demos, 'help()' for on-line help, or

→ Home > Downloads > NVGit > Course
 'help.start()' for an HTML browser interface to help.
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Figure: Creating a new project
6. Download the Code-along-4.Rmd and hotels.csv files from Canvas and move it to the folder, "Week-4"
```

A. Data Wrangling

II. Code to edit and execute using the Code-along.Rmd

2. Loading data-set (Slide #16)

Load package tidyverse

Enter code here

Enter code here

Enter code here

Enter code here

(Slide #37)

Enter code here

file

Read data from the hotels.csv file and assign it to a variable named, "hotels" 3. List names of the variables in the data-set (Slide #19)

1. Loading packages (Slide #16)

4. Glimpse of contents of the data-set (Slide #20)

B. Choosing rows or columns

Enter code here

8. Arrange entries of a column in the descending order (Slide #30) # Enter code here

7. Arrange entries of a column (Slide #28)

5. Select a single column (Slide #24)

6. Select multiple columns (Slide #25)

9. Select columns and arrange the entries of a column (Slide #31) # Enter code here

11. Pick rows matching a condition (Slide #44)

10. Select columns and arrange the entries of a column using the pipe operator

12. Pick rows matching multiple conditions (Slide #46) # Enter code here

13. Non-conditional selection of rows: sequence of indices (Slide #49)

14. Non-conditional selection of rows: non-consecutive/specific indices (Slide #50) # Enter code here

C. Creating new columns 16. Creating a single column with mutate() (Slide #56)

D. More operations with examples

18. count() to get frequencies (Slide #60)

20. count() multiple variables (Slide #62)

15. Pick unique rows using distinct() (Slide #52)

17. Creating multiple columns with mutate() (Slide #58)

Enter code here 19. count() to get frequencies with sorting of count (Slide #61)

Enter code here 21. summarise() for summary statistics (Slide #63)

23. summarise() by using group_by to get count (Slide #65)

22. summarise() by using group_by to find mean (Slide #64)

Enter code here 25. select(), slice() and arrange() (Slide #68)

24. summarise() for multiple summary statistics (Slide #67)

26. select(), arrange() and slice() (Slide #69) # Enter code here

27. filter() to select rows based on conditions (Slide #73)

Enter code here 28. filter() to select rows based on complicated conditions (Slide #74)

Enter code here

29. count() and arrange() (Slide #76) # Enter code here

Enter code here

31. mutate(), filter() and select() (Slide #78)

30. mutate(), select() and arrange() (Slide #77)