Week-4: Code-along

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

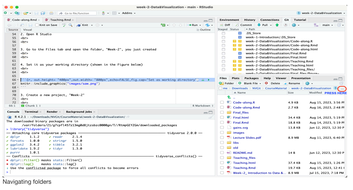
I. Preliminaries

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

2. Open R Studio

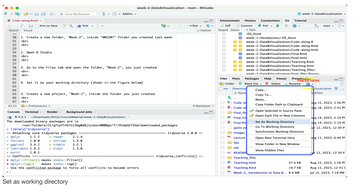
3. Go to the Files tab and open the folder, "Week-4", you just created

- 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



Navigating folders

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



Set as working directory

5. Now, create a new project and name it "Week-4"

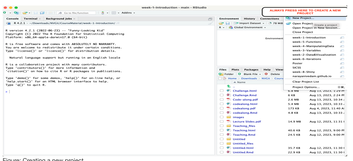


Figure: Creating a new project

6. Download the `Code-along-4.Rmd` and `hotels.csv` files from Canvas and move it to the folder, "Week-4"

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

A. Data Wrangling

1. Loading packages (Slide #16)

```
# Load package tidyverse
```

2. Loading data-set (Slide #16)

```
# 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)

```
# Enter code here
```

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

```
# Enter code here
```

B. Choosing rows or columns

5. Select a single column (Slide #24)

```
# Enter code here
```

6. Select multiple columns (Slide #25)

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

10. Select columns and arrange the entries of a column using the pipe operator (Slide #37)

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

C. Creating new columns

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

```
# Enter code here
```

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

```
# Enter code here
```

D. More operations with examples

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

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

21. summarise() for summary statistics (Slide #63)

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

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

```
# Enter code here
```

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
```

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

```
# Enter code here
```

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

```
# Enter code here
```