

STATS 20: Sections 2.5-2.9

STATS 20 Team

Fall 2026

Today's Goal

For this discussion section, you are tasked to explore some more operations and commands using vectors and matrices.

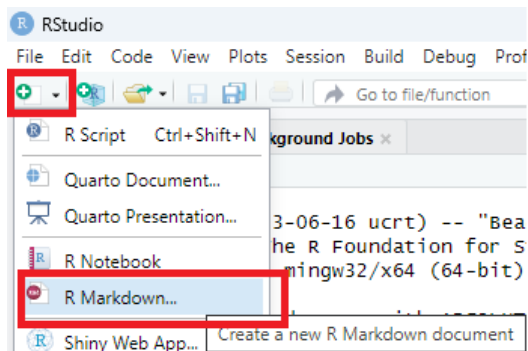
- ▶ Ensure specific packages like tidyverse is installed.

When done, you'll have to knit your RMarkdown File and make sure you have a .pdf copy to submit.

- ▶ This .pdf will be in preparation for the second half of the course.

The Markdown

Make sure to open RStudio and create a new R Markdown File. Make sure your name, course, and date is on it.



Unwrapping the Concept of Packages

- ▶ As mentioned in lecture, packages allow R users to go behind the inherent objects and functions developed in base R to perform numerous commands and technique much more fluently.
- ▶ Many packages overlap with one another, and different packages may perform similar techniques, but in a different way. It is important to note which function/object is coming from which command, as you may have to use it to justify your results!
 - ▶ As a reminder, if two packages are *activated* (official terms are either “loaded” or “attached”), and if they share an object or function name, then the objects/functions that came from the most-recent activated package will mask the other package.
- ▶ We will upload more packages later, but we'll get started with the `tidyvers` to avoid the wait time for installing packages (in real time).

A Breakdown of the tidyverse Packages

- ▶ The **tidyverse**: The megapackage that contains numerous other packages that help clean, wrangle, and access your data in general. Extremely useful, and also includes **ggplot2**, which provides stellar data visuals for analysis, and **readxl**, which is handy to work with Excel Files.
- ▶ You should have this package installed by now, go ahead and comment them out (add a hashtag at the beginning of that line).. If not, time to do it.

```
#installing packages.  
# comment out (add # to the beginning of that line)  
      # if you have installed a package already  
install.packages("tidyverse")
```

Working directory time!

Make sure you can set your working directory, especially to import datasets into R. Using the techniques from lecture, create an R Chunk to

- (1) set your working directory and load the package readxl (which is part of the tidyverse megapackage)
- (2) use the read_excel() command in class to upload the new dataset provided: automobile_26.xlsx. Name the file auto. We'll designate the entries that are blank with the argument na="".

```
#Set WD  
setwd("Your_Working_Directory")  
#Accessing  
library(readxl)  
#Import Data  
auto<-read_excel('automobile_26.xlsx', na="")
```

Summary Data

- (3) Confirm you imported everything correctly by getting the *summary* values of this variable, using the command lines `head(auto)` and `summary(auto)`.

```
head(auto)
summary(auto) # Summary of data and all four variables
```

That's It for Today... for the Markdown stuff!

You did the things! Now to the Midterm Review

All that is left is to work on converting your Markdown file to a pdf file.

- ▶ Either do it directly, or convert it to an html and print to a pdf (see lecture slides for directions). **Make sure your name and UCLA Student ID is on the file somewhere**
- ▶ Upload the either the html or pdf file only (no .Rmd file needed) in the *Discussions & Participation* Section of the *Modules* tab in BruinLearn. Go to *Discussion 10/23* and upload there to get your 1 point (Exit Slip).

Enjoy the weekend! The Midterm Is Upon Us!