assignment_06_MunjewarSheetal

Sheetal M

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Install and Load required packages :

```
# Package names
# packages <- c("ggplot2","dplyr","tidyr","magrittr","tidyverse","purrr")
packages <- c("ggplot2","dplyr","magrittr","tidyverse","purrr","pander","pandoc")

# Install packages not yet installed
installed_packages <- packages %in% rownames(installed.packages())
if (any(installed_packages == FALSE)) {
  install.packages(packages[!installed_packages])
}

# Packages loading
invisible(lapply(packages, library, character.only = TRUE))
```

```
##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag

## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union

## -- Attaching packages --------------------------------------- tidyverse 1.3.2 --
## v tibble  3.1.8     v purrr   1.0.0
## v tidyr   1.2.1     v stringr 1.5.0
## v readr   2.1.3     v forcats 0.5.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x tidyr::extract()   masks magrittr::extract()
## x dplyr::filter()    masks stats::filter()
## x dplyr::lag()       masks stats::lag()
## x purrr::set_names() masks magrittr::set_names()
```

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

Markdown Basics Examples :

Demonstrate Heading:

Heading level 1

Heading level 2

Heading level 3

Heading level 4

Heading level 5

Demonstrate fonts Examples :

Demonstrate **bold** word in the sentence.
Demonstrate *Italic* word in the sentence.

Add a Quote

Markdown Quotes

> What is R Markdown? R Markdown is a way of generating fully reproducible documents, in which both text and code can be combined.
> That's how things can be made as bullets,bold, italics, links, or run inline R codes.

Markdown Nested Quotes

> What is R Markdown? R Markdown is a way of generating fully reproducible documents, in which both text and code can be combined.
>
> > That's how things can be made as bullets,bold, italics, links, or run inline R codes.

Markdown Quotes with other elements

The annual results look great!

- Revenue was doubled.
- Profits were multifold.

Everything worked as per **plan**.

Favorite Foods (Ordered)

1. Mongo
2. Apple
3. Orange
4. Banana

Favorite Foods (Un-ordered)

- Mongo
- Apple
- Orange
- Banana

Images

Here's an Marigold flower image, copie ramdomly from internet:

Move on to next one ... :)

Add an Equation

$$\dot{x} = \sigma(y - x) \tag{1}$$
$$\dot{y} = \rho x - y - xz \tag{2}$$
$$\dot{z} = -\beta z + xy \tag{3}$$

Add a Footnote

[1]

[1] This line will be printed as a footnote.

Here is a sample foot note text body reference.[2]

Add Citations

- (**Manual?**){R for Everyone, title = {R for Everyone}, author = { Jared P. Lander}, year = {February 25, 2010}, pages = {31,94}, url = {https://www.R-project.org/},}
- (**Manual?**){Discovering Statistics Using R, title = {Discovering Statistics Using R}, author = { Andy Field, Andy P. Field, Jeremy Miles}, Item Weight = { 5.07 pounds}, Dimensions = {7.6 x 1.6 x 10.4 inches}, journal = {Geology}, year = {February 25, 2010},}

(**book?**){lander2014r, title={R for Everyone: Advanced Analytics and Graphics}, author={Lander, J.P.}, isbn={9780321888037}, lccn={2013027407}, series={Addison-Wesley data and analytics series}, url={https://books.google.com/books?id=3eBVAgAAQBAJ}, year={2014}, publisher={Addison-Wesley} }

(**book?**){field2012discovering, title={Discovering Statistics Using R}, author={Field, A. and Miles, J. and Field, Z.}, isbn={9781446258460}, url={https://books.google.com/books?id=wd2K2zC3swIC}, year={2012}, publisher={SAGE Publications} } * R for Everyone * Discovering Statistics Using R

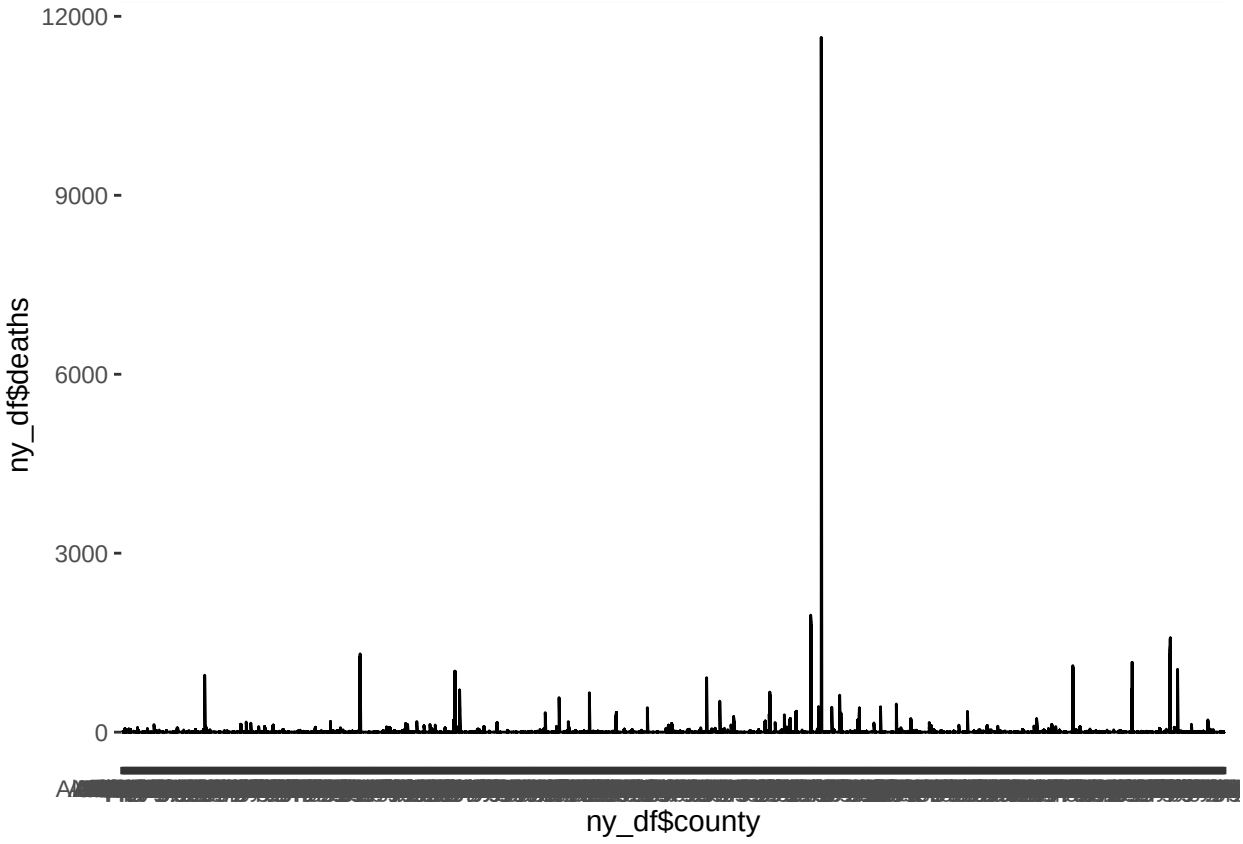
Inline Code

NY Times COVID-19 Data

```
## Warning: Use of ‘ny_df$county‘ is discouraged.
## i Use ‘county‘ instead.
```

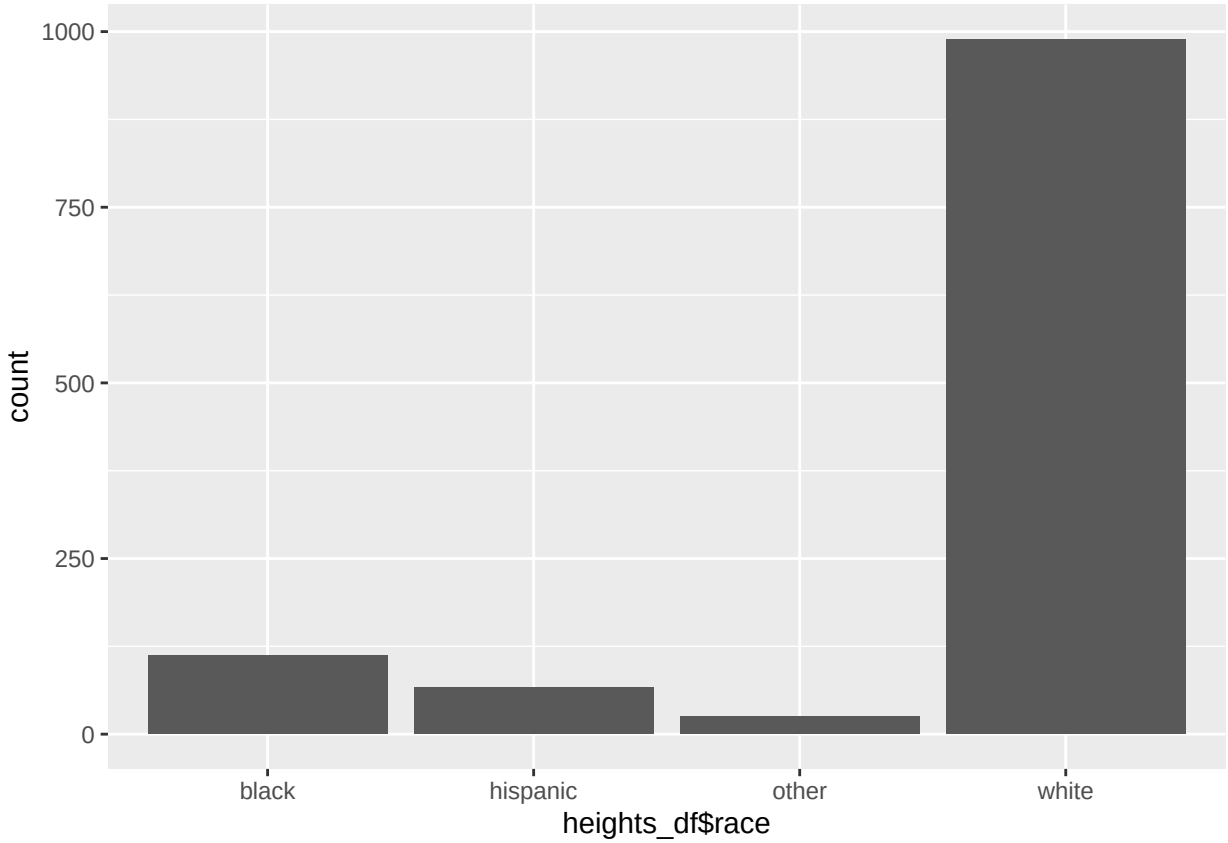
```
## Warning: Use of ‘ny_df$deaths‘ is discouraged.
## i Use ‘deaths‘ instead.
```

[2]This footnote will appear at the bottom of the page.



R4DS Height vs Earnings

```
## Warning: Use of ‘heights_df$race‘ is discouraged.
## i Use ‘race‘ instead.
```



Tables

First_Name	Last_Name	Address
Sheetal	Munjewar	Omaha,NE
John	Hopkins	Baltimor,MD

Knitr Table with Kable

```
setwd("E:\\Data_Science_DSC510\\DSC520-Statistics\\dsc520")
ny_df <- read.csv("data/nytimes/covid-19-data/us-counties.csv")
head(ny_df)
```

```
##         date    county      state  fips cases deaths
## 1 2020-01-21 Snohomish Washington 53061     1      0
## 2 2020-01-22 Snohomish Washington 53061     1      0
## 3 2020-01-23 Snohomish Washington 53061     1      0
## 4 2020-01-24      Cook   Illinois 17031     1      0
## 5 2020-01-24 Snohomish Washington 53061     1      0
## 6 2020-01-25    Orange California  6059     1      0
```

```
knitr::kable(head(ny_df[, 1:4]), "simple", caption = "One Ring to Rule Them All")
```

Table 2: One Ring to Rule Them All

date	county	state	fips
2020-01-21	Snohomish	Washington	53061
2020-01-22	Snohomish	Washington	53061
2020-01-23	Snohomish	Washington	53061
2020-01-24	Cook	Illinois	17031
2020-01-24	Snohomish	Washington	53061
2020-01-25	Orange	California	6059

Pandoc Table - (multiline, simple, grid, rmarkdown)

```
# Reference - https://cran.r-project.org/web/packages/pander/vignettes/pandoc_table.html
#install.packages("pander")
#install.packages("pandoc")
library(pander)  # to laod pandoc.table()
library(pandoc)


setwd("E:\\Data_Science_DSC510\\DSC520-Statistics\\dsc520")
ny_df <- read.csv("data/nytimes/covid-19-data/us-counties.csv")
ny_df %>% select(date,state,cases,deaths) %>% head(.,n=10)
```

```
##          date      state cases deaths
## 1  2020-01-21 Washington     1      0
## 2  2020-01-22 Washington     1      0
## 3  2020-01-23 Washington     1      0
## 4  2020-01-24   Illinois     1      0
## 5  2020-01-24 Washington     1      0
## 6  2020-01-25 California     1      0
## 7  2020-01-25   Illinois     1      0
## 8  2020-01-25 Washington     1      0
## 9  2020-01-26    Arizona     1      0
## 10 2020-01-26 California     1      0
```

```
m <- ny_df %>% select(date,state,cases,deaths) %>% head(.,n=10)
colnames(m) <- c('Date', 'State','Cases', 'Deaths')
pandoc.table(m, keep.line.breaks = TRUE)
```

```
##
## ------------------------------------------
##     Date        State      Cases   Deaths
## ------------ ------------ ------- --------
##  2020-01-21   Washington     1       0
##
##  2020-01-22   Washington     1       0
##
```

```
##  2020-01-23   Washington     1       0
##
##  2020-01-24    Illinois      1       0
##
##  2020-01-24   Washington     1       0
##
##  2020-01-25   California     1       0
##
##  2020-01-25    Illinois      1       0
##
##  2020-01-25   Washington     1       0
##
##  2020-01-26    Arizona       1       0
##
##  2020-01-26   California     1       0
## ----------------------------------------
```

```
pandoc.table(m, keep.line.breaks = TRUE,style='simple')
```

```
##
##
##     Date         State       Cases   Deaths
## ------------ ------------ ------- --------
##  2020-01-21   Washington     1       0
##  2020-01-22   Washington     1       0
##  2020-01-23   Washington     1       0
##  2020-01-24    Illinois      1       0
##  2020-01-24   Washington     1       0
##  2020-01-25   California     1       0
##  2020-01-25    Illinois      1       0
##  2020-01-25   Washington     1       0
##  2020-01-26    Arizona       1       0
##  2020-01-26   California     1       0
```

```
pandoc.table(m, keep.line.breaks = TRUE,style='grid')
```

```
##
##
## +------------+------------+-------+--------+
## |    Date    |   State    | Cases | Deaths |
## +============+============+=======+========+
## | 2020-01-21 | Washington |   1   |   0    |
## +------------+------------+-------+--------+
## | 2020-01-22 | Washington |   1   |   0    |
## +------------+------------+-------+--------+
## | 2020-01-23 | Washington |   1   |   0    |
## +------------+------------+-------+--------+
## | 2020-01-24 |  Illinois  |   1   |   0    |
## +------------+------------+-------+--------+
## | 2020-01-24 | Washington |   1   |   0    |
## +------------+------------+-------+--------+
## | 2020-01-25 | California |   1   |   0    |
## +------------+------------+-------+--------+
```

```
## | 2020-01-25 |  Illinois  |   1   |   0    |
## +------------+------------+-------+--------+
## | 2020-01-25 | Washington |   1   |   0    |
## +------------+------------+-------+--------+
## | 2020-01-26 |  Arizona   |   1   |   0    |
## +------------+------------+-------+--------+
## | 2020-01-26 | California |   1   |   0    |
## +------------+------------+-------+--------+
```

References