

Test Markdown

Becca Selden

2024-11-12

Objective

Work through RMarkdown commands with students Last edited: November 12, 2024

Big Header

Small Header

This is a code chunk

This uses 3 backwards apostrophes (on top left of keyboard)

```
a <- 42

#print the output
a
```

```
## [1] 42
```

Load a R dataset on cars

```
mtcars
```

##	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
## Mazda RX4	21.0	6	160.0	110	3.90	2.620	16.46	0	1	4	4
## Mazda RX4 Wag	21.0	6	160.0	110	3.90	2.875	17.02	0	1	4	4
## Datsun 710	22.8	4	108.0	93	3.85	2.320	18.61	1	1	4	1
## Hornet 4 Drive	21.4	6	258.0	110	3.08	3.215	19.44	1	0	3	1
## Hornet Sportabout	18.7	8	360.0	175	3.15	3.440	17.02	0	0	3	2
## Valiant	18.1	6	225.0	105	2.76	3.460	20.22	1	0	3	1
## Duster 360	14.3	8	360.0	245	3.21	3.570	15.84	0	0	3	4
## Merc 240D	24.4	4	146.7	62	3.69	3.190	20.00	1	0	4	2
## Merc 230	22.8	4	140.8	95	3.92	3.150	22.90	1	0	4	2
## Merc 280	19.2	6	167.6	123	3.92	3.440	18.30	1	0	4	4
## Merc 280C	17.8	6	167.6	123	3.92	3.440	18.90	1	0	4	4
## Merc 450SE	16.4	8	275.8	180	3.07	4.070	17.40	0	0	3	3
## Merc 450SL	17.3	8	275.8	180	3.07	3.730	17.60	0	0	3	3
## Merc 450SLC	15.2	8	275.8	180	3.07	3.780	18.00	0	0	3	3
## Cadillac Fleetwood	10.4	8	472.0	205	2.93	5.250	17.98	0	0	3	4
## Lincoln Continental	10.4	8	460.0	215	3.00	5.424	17.82	0	0	3	4
## Chrysler Imperial	14.7	8	440.0	230	3.23	5.345	17.42	0	0	3	4
## Fiat 128	32.4	4	78.7	66	4.08	2.200	19.47	1	1	4	1
## Honda Civic	30.4	4	75.7	52	4.93	1.615	18.52	1	1	4	2
## Toyota Corolla	33.9	4	71.1	65	4.22	1.835	19.90	1	1	4	1
## Toyota Corona	21.5	4	120.1	97	3.70	2.465	20.01	1	0	3	1
## Dodge Challenger	15.5	8	318.0	150	2.76	3.520	16.87	0	0	3	2
## AMC Javelin	15.2	8	304.0	150	3.15	3.435	17.30	0	0	3	2
## Camaro Z28	13.3	8	350.0	245	3.73	3.840	15.41	0	0	3	4
## Pontiac Firebird	19.2	8	400.0	175	3.08	3.845	17.05	0	0	3	2
## Fiat X1-9	27.3	4	79.0	66	4.08	1.935	18.90	1	1	4	1
## Porsche 914-2	26.0	4	120.3	91	4.43	2.140	16.70	0	1	5	2
## Lotus Europa	30.4	4	95.1	113	3.77	1.513	16.90	1	1	5	2
## Ford Pantera L	15.8	8	351.0	264	4.22	3.170	14.50	0	1	5	4
## Ferrari Dino	19.7	6	145.0	175	3.62	2.770	15.50	0	1	5	6
## Maserati Bora	15.0	8	301.0	335	3.54	3.570	14.60	0	1	5	8
## Volvo 142E	21.4	4	121.0	109	4.11	2.780	18.60	1	1	4	2

Install packages

We want to install tidyverse and here as two packages

```
# install.packages(c("tidyverse", "here"))
# install.packages(c("lubridate"))
```

Loading data from a url

```
monster_movie_genres <- readr::read_csv('https://raw.githubusercontent.com/rfordatascience/tidyuesday/master/data/2024/2024-10-29/monster_movie_genres.csv')
```

```
## Rows: 1291 Columns: 2
## — Column specification —————
## Delimiter: ","
## chr (2): tconst, genres
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```
monster_movies <- readr::read_csv('https://raw.githubusercontent.com/rfordatascience/tidytuesday/master/data/2024/2024-10-29/monster_movies.csv')
```

```
## Rows: 630 Columns: 10
## — Column specification —————
## Delimiter: ","
## chr (6): tconst, title_type, primary_title, original_title, genres, simple_t...
## dbl (4): year, runtime_minutes, average_rating, num_votes
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

`package::function()` is a way to make sure that R is using the “right” function (or the one you want it to use) if there are more than one with same name. Read data in by assigning it to a new object (`monster_movie_genres`) with the backwards arrow `<-` and using `read_csv()` as the function to do that (in this case from a url, but could also be a csv in the Data folder)

Write a csv output

```
write_csv(object_name, filename_for_saving)
```

```
write_csv(monster_movie_genres, here::here("Data/monster_movie_genres.csv"))
write_csv(monster_movies, here::here("Data/monster_movies.csv"))
```

Read the csv from a file on your computer

```
monster_movie_genres2 <- read_csv(here::here("Data/monster_movie_genres.csv"))
```

```
## Rows: 1291 Columns: 2
## — Column specification —————
## Delimiter: ","
## chr (2): tconst, genres
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

Merge two files together

The movie genres file just had codes for the movie The movies file had info on the movie (title, date) We want them together so we can look at monster movies in a genre by year

```
new_data <- inner_join(data1, data2, by=c(x=y))
```

```
monster <- inner_join(monster_movie_genres, monster_movies, by="tconst")
```

number of genres per movie

Tidyverse syntax %>% = take this then do this new_object <- old_object %>% do_something_to_old_object

```
num_genres_by_movie <- monster_movie_genres %>%  
  group_by(tconst) %>%  
  summarize(num_genres=n_distinct(genres))
```

```
monster2 <- inner_join(num_genres_by_movie, monster_movies, by="tconst")
```