D2SC ICMA Notebook

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Table of Contents

knitr::opts\_chunk$set(echo=FALSE)

## Warning: package 'ggplot2' was built under R version 4.3.1

## Warning: package 'tidyr' was built under R version 4.3.1

## Warning: package 'readr' was built under R version 4.3.1

## Warning: package 'dplyr' was built under R version 4.3.1

## Warning: package 'stringr' was built under R version 4.3.1

## Warning: package 'lubridate' was built under R version 4.3.1

# ICMA September 9 2024



# ICMA September 11 2024

## [1] 4

## [1] 4

## [1] 3

doesnt initialize until after it is veab used

## [1] 2 3 4

## [1] 0.5

# ICMA September 16 2024

## [1] 5.5

## [1] 5.5

## [1] "/Users/jencuri/Documents/GitHub/Data2SciComm/ICMA"

## 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

## Rows: 32 Columns: 12  
## ── Column specification ────────────────────────────────────────────────────────  
## Delimiter: ","  
## chr (1): rowname  
## dbl (11): mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, carb  
##   
## 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.

# ICMA September 18 2024

## Rows: 578  
## Columns: 4  
## $ weight <dbl> 42, 51, 59, 64, 76, 93, 106, 125, 149, 171, 199, 205, 40, 49, 5…  
## $ Time <dbl> 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 21, 0, 2, 4, 6, 8, 10, 1…  
## $ Chick <ord> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, …  
## $ Diet <fct> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, …

## Chick weight  
## 1 1 42  
## 2 1 51  
## 3 1 59

## age\_days weight\_gm  
## 1 0 42  
## 2 2 51  
## 3 4 59

## Time Chick Diet  
## 1 0 1 1  
## 2 2 1 1  
## 3 4 1 1

## age\_days weight\_gm  
## 1 0 42  
## 2 2 51  
## 3 4 59  
## 4 6 64  
## 5 8 76  
## 6 10 93

# ICMA September 23 2024

## # A tibble: 6 × 79  
## artist track date.entered wk1 wk2 wk3 wk4 wk5 wk6 wk7 wk8  
## <chr> <chr> <date> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 2 Pac Baby… 2000-02-26 87 82 72 77 87 94 99 NA  
## 2 2Ge+her The … 2000-09-02 91 87 92 NA NA NA NA NA  
## 3 3 Doors Do… Kryp… 2000-04-08 81 70 68 67 66 57 54 53  
## 4 3 Doors Do… Loser 2000-10-21 76 76 72 69 67 65 55 59  
## 5 504 Boyz Wobb… 2000-04-15 57 34 25 17 17 31 36 49  
## 6 98^0 Give… 2000-08-19 51 39 34 26 26 19 2 2  
## # ℹ 68 more variables: wk9 <dbl>, wk10 <dbl>, wk11 <dbl>, wk12 <dbl>,  
## # wk13 <dbl>, wk14 <dbl>, wk15 <dbl>, wk16 <dbl>, wk17 <dbl>, wk18 <dbl>,  
## # wk19 <dbl>, wk20 <dbl>, wk21 <dbl>, wk22 <dbl>, wk23 <dbl>, wk24 <dbl>,  
## # wk25 <dbl>, wk26 <dbl>, wk27 <dbl>, wk28 <dbl>, wk29 <dbl>, wk30 <dbl>,  
## # wk31 <dbl>, wk32 <dbl>, wk33 <dbl>, wk34 <dbl>, wk35 <dbl>, wk36 <dbl>,  
## # wk37 <dbl>, wk38 <dbl>, wk39 <dbl>, wk40 <dbl>, wk41 <dbl>, wk42 <dbl>,  
## # wk43 <dbl>, wk44 <dbl>, wk45 <dbl>, wk46 <dbl>, wk47 <dbl>, wk48 <dbl>, …

## # A tibble: 24,092 × 5  
## artist track date.entered name value  
## <chr> <chr> <date> <chr> <dbl>  
## 1 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk1 87  
## 2 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk2 82  
## 3 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk3 72  
## 4 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk4 77  
## 5 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk5 87  
## 6 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk6 94  
## 7 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk7 99  
## 8 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk8 NA  
## 9 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk9 NA  
## 10 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk10 NA  
## # ℹ 24,082 more rows

## # A tibble: 6 × 5  
## artist track date.entered week position  
## <chr> <chr> <date> <chr> <dbl>  
## 1 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk1 87  
## 2 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk2 82  
## 3 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk3 72  
## 4 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk4 77  
## 5 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk5 87  
## 6 2 Pac Baby Don't Cry (Keep... 2000-02-26 wk6 94

## [1] 317 79

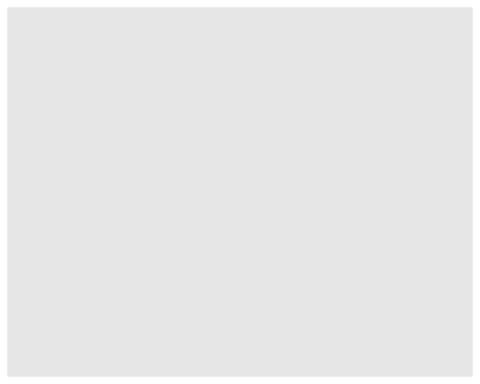
## # A tibble: 317 × 79  
## artist track date.entered wk1 wk2 wk3 wk4 wk5 wk6 wk7 wk8  
## <chr> <chr> <date> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 2 Pac Baby… 2000-02-26 87 82 72 77 87 94 99 NA  
## 2 2Ge+her The … 2000-09-02 91 87 92 NA NA NA NA NA  
## 3 3 Doors D… Kryp… 2000-04-08 81 70 68 67 66 57 54 53  
## 4 3 Doors D… Loser 2000-10-21 76 76 72 69 67 65 55 59  
## 5 504 Boyz Wobb… 2000-04-15 57 34 25 17 17 31 36 49  
## 6 98^0 Give… 2000-08-19 51 39 34 26 26 19 2 2  
## 7 A\*Teens Danc… 2000-07-08 97 97 96 95 100 NA NA NA  
## 8 Aaliyah I Do… 2000-01-29 84 62 51 41 38 35 35 38  
## 9 Aaliyah Try … 2000-03-18 59 53 38 28 21 18 16 14  
## 10 Adams, Yo… Open… 2000-08-26 76 76 74 69 68 67 61 58  
## # ℹ 307 more rows  
## # ℹ 68 more variables: wk9 <dbl>, wk10 <dbl>, wk11 <dbl>, wk12 <dbl>,  
## # wk13 <dbl>, wk14 <dbl>, wk15 <dbl>, wk16 <dbl>, wk17 <dbl>, wk18 <dbl>,  
## # wk19 <dbl>, wk20 <dbl>, wk21 <dbl>, wk22 <dbl>, wk23 <dbl>, wk24 <dbl>,  
## # wk25 <dbl>, wk26 <dbl>, wk27 <dbl>, wk28 <dbl>, wk29 <dbl>, wk30 <dbl>,  
## # wk31 <dbl>, wk32 <dbl>, wk33 <dbl>, wk34 <dbl>, wk35 <dbl>, wk36 <dbl>,  
## # wk37 <dbl>, wk38 <dbl>, wk39 <dbl>, wk40 <dbl>, wk41 <dbl>, wk42 <dbl>, …

## # A tibble: 5,307 × 5  
## artist track date.entered week position  
## <chr> <chr> <date> <chr> <dbl>  
## 1 2 Pac Baby Don't Cry (Keep... 2000-02-26 1 87  
## 2 2 Pac Baby Don't Cry (Keep... 2000-02-26 2 82  
## 3 2 Pac Baby Don't Cry (Keep... 2000-02-26 3 72  
## 4 2 Pac Baby Don't Cry (Keep... 2000-02-26 4 77  
## 5 2 Pac Baby Don't Cry (Keep... 2000-02-26 5 87  
## 6 2 Pac Baby Don't Cry (Keep... 2000-02-26 6 94  
## 7 2 Pac Baby Don't Cry (Keep... 2000-02-26 7 99  
## 8 2Ge+her The Hardest Part Of ... 2000-09-02 1 91  
## 9 2Ge+her The Hardest Part Of ... 2000-09-02 2 87  
## 10 2Ge+her The Hardest Part Of ... 2000-09-02 3 92  
## # ℹ 5,297 more rows

## # A tibble: 317 × 81  
## artist track year month day wk1 wk2 wk3 wk4 wk5 wk6 wk7  
## <chr> <chr> <chr> <chr> <chr> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 2 Pac Baby… 2000 02 26 87 82 72 77 87 94 99  
## 2 2Ge+her The … 2000 09 02 91 87 92 NA NA NA NA  
## 3 3 Doors Do… Kryp… 2000 04 08 81 70 68 67 66 57 54  
## 4 3 Doors Do… Loser 2000 10 21 76 76 72 69 67 65 55  
## 5 504 Boyz Wobb… 2000 04 15 57 34 25 17 17 31 36  
## 6 98^0 Give… 2000 08 19 51 39 34 26 26 19 2  
## 7 A\*Teens Danc… 2000 07 08 97 97 96 95 100 NA NA  
## 8 Aaliyah I Do… 2000 01 29 84 62 51 41 38 35 35  
## 9 Aaliyah Try … 2000 03 18 59 53 38 28 21 18 16  
## 10 Adams, Yol… Open… 2000 08 26 76 76 74 69 68 67 61  
## # ℹ 307 more rows  
## # ℹ 69 more variables: wk8 <dbl>, wk9 <dbl>, wk10 <dbl>, wk11 <dbl>,  
## # wk12 <dbl>, wk13 <dbl>, wk14 <dbl>, wk15 <dbl>, wk16 <dbl>, wk17 <dbl>,  
## # wk18 <dbl>, wk19 <dbl>, wk20 <dbl>, wk21 <dbl>, wk22 <dbl>, wk23 <dbl>,  
## # wk24 <dbl>, wk25 <dbl>, wk26 <dbl>, wk27 <dbl>, wk28 <dbl>, wk29 <dbl>,  
## # wk30 <dbl>, wk31 <dbl>, wk32 <dbl>, wk33 <dbl>, wk34 <dbl>, wk35 <dbl>,  
## # wk36 <dbl>, wk37 <dbl>, wk38 <dbl>, wk39 <dbl>, wk40 <dbl>, wk41 <dbl>, …

# ICMA September 25 2024

## age\_days weight\_gm  
## 1 0 42  
## 2 2 51  
## 3 4 59  
## 4 6 64  
## 5 8 76  
## 6 10 93



# ICMA October 7 2024

## Warning: NAs introduced by coercion

## [1] NA

## [1] NA

## [1] TRUE

## [1] TRUE

## [1] FALSE

# ICMA October 9 2024

## # A tibble: 4 × 2  
## id age  
## <dbl> <dbl>  
## 1 1 8  
## 2 2 10  
## 3 3 8  
## 4 5 9

## # A tibble: 5 × 2  
## id gender  
## <dbl> <chr>   
## 1 1 f   
## 2 2 m   
## 3 3 nb   
## 4 4 m   
## 5 6 f

## Joining with `by = join\_by(id)`

## # A tibble: 6 × 3  
## id age gender  
## <dbl> <dbl> <chr>   
## 1 1 8 f   
## 2 2 10 m   
## 3 3 8 nb   
## 4 5 9 <NA>   
## 5 4 NA m   
## 6 6 NA f

## # A tibble: 6 × 3  
## id\_x gender age  
## <dbl> <chr> <dbl>  
## 1 1 f 8  
## 2 2 m 10  
## 3 3 nb 8  
## 4 4 m NA  
## 5 6 f NA  
## 6 5 <NA> 9

## # A tibble: 6 × 3  
## id age gender  
## <dbl> <dbl> <chr>   
## 1 1 8 f   
## 2 2 10 m   
## 3 3 8 nb   
## 4 5 9 <NA>   
## 5 4 NA m   
## 6 6 NA f

## Joining with `by = join\_by(id)`

## # A tibble: 5 × 3  
## id age gender  
## <dbl> <dbl> <chr>   
## 1 1 8 f   
## 2 2 10 m   
## 3 3 8 nb   
## 4 4 NA m   
## 5 6 NA f

## Joining with `by = join\_by(id)`

## # A tibble: 4 × 3  
## id age gender  
## <dbl> <dbl> <chr>   
## 1 1 8 f   
## 2 2 10 m   
## 3 3 8 nb   
## 4 5 9 <NA>

## Joining with `by = join\_by(id)`

## # A tibble: 3 × 3  
## id age gender  
## <dbl> <dbl> <chr>   
## 1 1 8 f   
## 2 2 10 m   
## 3 3 8 nb

# ICMA October 16 2024

## [1] 2

## [1] 2

## [1] 2

## [1] "MC" "AP" "NG" "VE" "AL" "AR" "MC" "RK" "AC" "SC" "KK" "RK" "VK" "MH"  
## [1] 8 9 12 6 17 3 7 8 4 21 16 28 17 12

## [1] "tbl\_df" "tbl" "data.frame"

## [1] 8 9 12 6 17 3 7 8 4 21 16 28 17 12

## [1] 8  
## [1] 9  
## [1] 12  
## [1] 6  
## [1] 17  
## [1] 3  
## [1] 7  
## [1] 8  
## [1] 4  
## [1] 21  
## [1] 16  
## [1] 28  
## [1] 17  
## [1] 12

## [1] 14

## [1] 1

Why is the output different? How are fave\_number[“number”] and fave\_number$number different?

## [1] "list"

## [1] "double"

## [1] 8  
## [1] 9  
## [1] 12  
## [1] 6  
## [1] 17  
## [1] 3  
## [1] 7  
## [1] 8  
## [1] 4  
## [1] 21  
## [1] 16  
## [1] 28  
## [1] 17  
## [1] 12

## [1] "takes vectors and puts them together"

## [1] "MC's favorite number is 8"  
## [1] "AP's favorite number is 9"  
## [1] "NG's favorite number is 12"  
## [1] "VE's favorite number is 6"  
## [1] "AL's favorite number is 17"  
## [1] "AR's favorite number is 3"  
## [1] "MC's favorite number is 7"  
## [1] "RK's favorite number is 8"  
## [1] "AC's favorite number is 4"  
## [1] "SC's favorite number is 21"  
## [1] "KK's favorite number is 16"  
## [1] "RK's favorite number is 28"  
## [1] "VK's favorite number is 17"  
## [1] "MH's favorite number is 12"

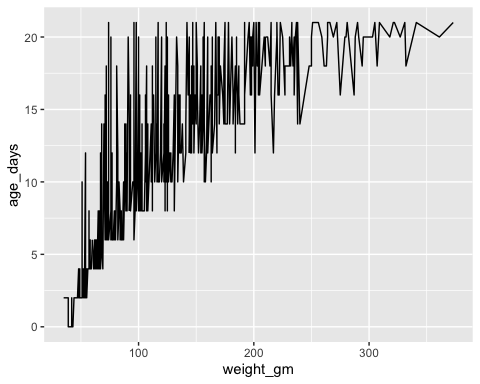
## mpg cyl disp hp drat wt qsec vs am gear carb  
## Mazda RX4 21.0 6 160.0 110 3.90 2.620 16.46 0 1 4 4  
## Mazda RX4 Wag 21.0 6 160.0 110 3.90 2.875 17.02 0 1 4 4  
## Datsun 710 22.8 4 108.0 93 3.85 2.320 18.61 1 1 4 1  
## Hornet 4 Drive 21.4 6 258.0 110 3.08 3.215 19.44 1 0 3 1  
## Hornet Sportabout 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

# ICMA October 30 2024

write a sentence that has **bold** and *italics*

Part 2: creatw a variable then write a sentance that uses that variable, bold and italics.

My name is Jen and I *like* **Chick-fil-a**



Weight across age days