Inclass Assignment (4)

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# Data manipulation using dplyr package (1)

# If you don’t know the answer, leave it blank.

# If you are caught cheating, you will be given minus 50 points.

# Run this chunk first

if (!require('dplyr')) install.packages('dplyr'); library('dplyr')

## Loading required package: dplyr

##   
## 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

Q1. Update the author name and date in YAML part above.

Q2. A line of code that returns the first four rows of starwars dataset

head(starwars, 4)

## # A tibble: 4 x 14  
## name height mass hair\_color skin\_color eye\_color birth\_year sex gender  
## <chr> <int> <dbl> <chr> <chr> <chr> <dbl> <chr> <chr>   
## 1 Luke Sky~ 172 77 blond fair blue 19 male mascu~  
## 2 C-3PO 167 75 <NA> gold yellow 112 none mascu~  
## 3 R2-D2 96 32 <NA> white, bl~ red 33 none mascu~  
## 4 Darth Va~ 202 136 none white yellow 41.9 male mascu~  
## # ... with 5 more variables: homeworld <chr>, species <chr>, films <list>,  
## # vehicles <list>, starships <list>

Q3. A line of code that returns the last six rows of starwars dataset

tail(starwars)

## # A tibble: 6 x 14  
## name height mass hair\_color skin\_color eye\_color birth\_year sex gender  
## <chr> <int> <dbl> <chr> <chr> <chr> <dbl> <chr> <chr>   
## 1 Finn NA NA black dark dark NA male mascu~  
## 2 Rey NA NA brown light hazel NA fema~ femin~  
## 3 Poe Dame~ NA NA brown light brown NA male mascu~  
## 4 BB8 NA NA none none black NA none mascu~  
## 5 Captain ~ NA NA unknown unknown unknown NA <NA> <NA>   
## 6 Padmé Am~ 165 45 brown light brown 46 fema~ femin~  
## # ... with 5 more variables: homeworld <chr>, species <chr>, films <list>,  
## # vehicles <list>, starships <list>

Q4. A line of code that returns unique values in eye\_color column of starwars

unique(starwars$eye\_color)

## [1] "blue" "yellow" "red" "brown"   
## [5] "blue-gray" "black" "orange" "hazel"   
## [9] "pink" "unknown" "red, blue" "gold"   
## [13] "green, yellow" "white" "dark"

Q5. Explain the meaning of the following two abbreviations for R data type

# `int` = integer  
# `fctr` = factor,categorical valur

Q6. What is the role of arrange() function of the dplyr package? Use a hashtag when you add an answer.

# arrange() = Rearder the rows

Q7. What is the role of mutate() function of the dplyr package? Use a hashtag when you add an answer.

# mutate() = Create new variables with functions of existing variables

Q8. A line of code that filters the rows by height values (167 or 96) of starwars data

filter(starwars,height == 167 | height == 96)

## # A tibble: 4 x 14  
## name height mass hair\_color skin\_color eye\_color birth\_year sex gender  
## <chr> <int> <dbl> <chr> <chr> <chr> <dbl> <chr> <chr>   
## 1 C-3PO 167 75 <NA> gold yellow 112 none mascu~  
## 2 R2-D2 96 32 <NA> white, bl~ red 33 none mascu~  
## 3 Jocasta ~ 167 NA white fair blue NA fema~ femin~  
## 4 R4-P17 96 NA none silver, r~ red, blue NA none femin~  
## # ... with 5 more variables: homeworld <chr>, species <chr>, films <list>,  
## # vehicles <list>, starships <list>

Q9. A line of code that filters the rows by height values (167 or 96) of starwars data, using %in% operator

filter(starwars, height %in% c(167,96))

## # A tibble: 4 x 14  
## name height mass hair\_color skin\_color eye\_color birth\_year sex gender  
## <chr> <int> <dbl> <chr> <chr> <chr> <dbl> <chr> <chr>   
## 1 C-3PO 167 75 <NA> gold yellow 112 none mascu~  
## 2 R2-D2 96 32 <NA> white, bl~ red 33 none mascu~  
## 3 Jocasta ~ 167 NA white fair blue NA fema~ femin~  
## 4 R4-P17 96 NA none silver, r~ red, blue NA none femin~  
## # ... with 5 more variables: homeworld <chr>, species <chr>, films <list>,  
## # vehicles <list>, starships <list>

Q10. What is the hair color of the row in which mass is 82 and birth\_year is 92?

filter(starwars, mass == 82 & birth\_year == 92)

## # A tibble: 1 x 14  
## name height mass hair\_color skin\_color eye\_color birth\_year sex gender  
## <chr> <int> <dbl> <chr> <chr> <chr> <dbl> <chr> <chr>   
## 1 Ki-Adi-M~ 198 82 white pale yellow 92 male mascu~  
## # ... with 5 more variables: homeworld <chr>, species <chr>, films <list>,  
## # vehicles <list>, starships <list>

# White

### *End of document*