WS #8 - Factor variables

Wednesday, February 19, 2025

DS 002R - Jo Hardin

Name: _____

Names of people you worked with: _____

Do you go to the mentor sessions? How can you get the most out of the mentor sessions?

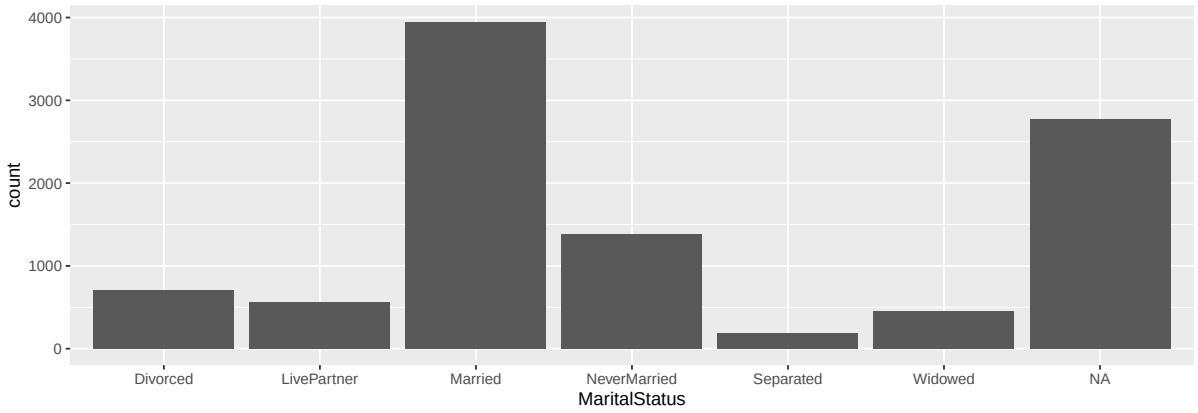
Task:

1. How would you order `MaritalStatus` in a more meaningful way?
2. Fill in the last 4 columns of the table below as if for rows of `MaritalStatus` that contain the values `Divorced`, `LivePartner`, `Separated`, or `Widowed`?

```
NHANES |>
  select(MaritalStatus) |> pull() |> levels()
```

```
[1] "Divorced"     "LivePartner"  "Married"      "NeverMarried"
[5] "Separated"    "Widowed"
```

```
NHANES |>
  ggplot(aes(x = MaritalStatus)) +
  geom_bar()
```



```r
NHANES |>
  select(MaritalStatus) |>
  sample_n(10) |>
  mutate(Mar_num = as.numeric(MaritalStatus),
         Mar_num_1 = as.numeric(MaritalStatus) + 1,
         Mar_char = as.character(MaritalStatus),
         Mar_change = ifelse(MaritalStatus == "Married", "Lol", MaritalStatus))
```

```
# A tibble: 10 x 5
   MaritalStatus Mar_num Mar_num_1 Mar_char     Mar_change
   <fct>           <dbl>     <dbl> <chr>        <chr>
 1 NeverMarried        4         5 NeverMarried 4
 2 Married             3         4 Married      Lol
 3 Married             3         4 Married      Lol
 4 NeverMarried        4         5 NeverMarried 4
 5 <NA>               NA        NA <NA>         <NA>
 6 Married             3         4 Married      Lol
 7 Married             3         4 Married      Lol
 8 <NA>               NA        NA <NA>         <NA>
 9 Married             3         4 Married      Lol
10 Married             3         4 Married      Lol
```

Solution:

1. I'm not sure that there is a single right answer, but one potential ordering is:

NeverMarried, LivePartner, Married, Separated, Divorced, Widowed

2.

```
set.seed(5)
NHANES |>  select(MaritalStatus) |> sample_n(3) |>
  mutate(Mar_num = as.numeric(MaritalStatus),
         Mar_num_1 = as.numeric(MaritalStatus) + 1,
         Mar_char = as.character(MaritalStatus),
         Mar_change = ifelse(MaritalStatus == "Married", "Lol", MaritalStatus))
```

```
# A tibble: 3 x 5
  MaritalStatus Mar_num Mar_num_1 Mar_char     Mar_change
  <fct>           <dbl>     <dbl> <chr>             <int>
1 <NA>               NA        NA <NA>                 NA
2 NeverMarried        4         5 NeverMarried         4
3 LivePartner         2         3 LivePartner          2
```

```
set.seed(14)
NHANES |> select(MaritalStatus) |> sample_n(10) |>
  mutate(Mar_num = as.numeric(MaritalStatus),
         Mar_num_1 = as.numeric(MaritalStatus) + 1,
         Mar_char = as.character(MaritalStatus),
         Mar_change = ifelse(MaritalStatus == "Married", "Lol", MaritalStatus))
```

```
# A tibble: 10 x 5
   MaritalStatus Mar_num Mar_num_1 Mar_char  Mar_change
   <fct>           <dbl>     <dbl> <chr>     <chr>
 1 Married             3         4 Married   Lol
 2 Married             3         4 Married   Lol
 3 Married             3         4 Married   Lol
 4 Separated           5         6 Separated 5
 5 Divorced            1         2 Divorced  1
 6 Married             3         4 Married   Lol
 7 Married             3         4 Married   Lol
 8 Married             3         4 Married   Lol
 9 <NA>               NA        NA <NA>      <NA>
10 Widowed             6         7 Widowed   6
```