

# Challenge-9

GZW

2023-10-18

#Challenge 1

```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
## v dplyr      1.1.2      v readr      2.1.4
## v forcats    1.0.0      v stringr   1.5.0
## v ggplot2    3.4.3      v tibble    3.2.1
## v lubridate  1.9.2      v tidyr     1.3.0
## v purrr      1.0.2
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
billboard
```

```
## # A tibble: 317 x 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>, ...
```

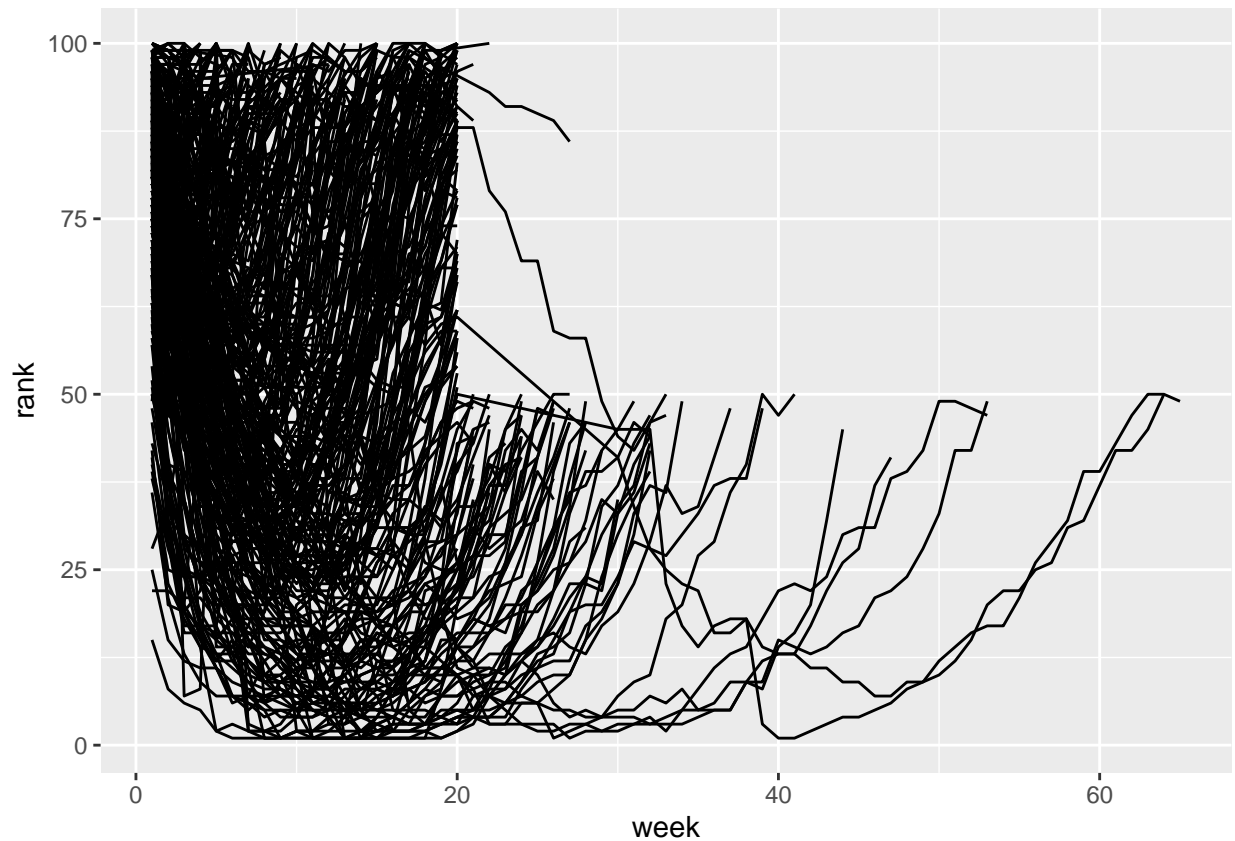
```
tidydata <- billboard %>%
  pivot_longer(
```

```
cols = starts_with("wk"),
names_to = "week",
values_to = "rank",
values_drop_na = TRUE) %>%
mutate(week = parse_number(week))
tidydata
```

```
## # A tibble: 5,307 x 5
##   artist track date.entered week rank
##   <chr> <chr> <date> <dbl> <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
```

*#Plot*

```
ggplot(tidydata,
aes(x = week,
y = rank,
group = track)) +
geom_line()
```



#Challenge 2

```
cms_patient_experience
```

```
## # A tibble: 500 x 5
##   org_pac_id org_nm          measure_cd measure_title prf_rate
##   <chr>      <chr>          <chr>      <chr>          <dbl>
## 1 0446157747 USC CARE MEDICAL GROUP INC CAHPS_GRP~ CAHPS for MI~      63
## 2 0446157747 USC CARE MEDICAL GROUP INC CAHPS_GRP~ CAHPS for MI~      87
## 3 0446157747 USC CARE MEDICAL GROUP INC CAHPS_GRP~ CAHPS for MI~      86
## 4 0446157747 USC CARE MEDICAL GROUP INC CAHPS_GRP~ CAHPS for MI~      57
## 5 0446157747 USC CARE MEDICAL GROUP INC CAHPS_GRP~ CAHPS for MI~      85
## 6 0446157747 USC CARE MEDICAL GROUP INC CAHPS_GRP~ CAHPS for MI~      24
## 7 0446162697 ASSOCIATION OF UNIVERSITY PHYSI~ CAHPS_GRP~ CAHPS for MI~      59
## 8 0446162697 ASSOCIATION OF UNIVERSITY PHYSI~ CAHPS_GRP~ CAHPS for MI~      85
## 9 0446162697 ASSOCIATION OF UNIVERSITY PHYSI~ CAHPS_GRP~ CAHPS for MI~      83
## 10 0446162697 ASSOCIATION OF UNIVERSITY PHYSI~ CAHPS_GRP~ CAHPS for MI~      63
## # i 490 more rows
```

```
tidy_cms <- cms_patient_experience %>%
  pivot_wider(
    id_cols = starts_with("org"),
    names_from="measure_cd",
    values_from="prf_rate")
tidy_cms
```

```
## # A tibble: 95 x 8
##   org_pac_id org_nm CAHPS_GRP_1 CAHPS_GRP_2 CAHPS_GRP_3 CAHPS_GRP_5 CAHPS_GRP_8
##   <chr>      <chr>      <dbl>      <dbl>      <dbl>      <dbl>      <dbl>
## 1 0446157747 USC C~          63          87          86          57          85
## 2 0446162697 ASSOC~          59          85          83          63          88
## 3 0547164295 BEAVE~          49          NA          75          44          73
## 4 0749333730 CAPE ~          67          84          85          65          82
## 5 0840104360 ALLIA~          66          87          87          64          87
## 6 0840109864 REX H~          73          87          84          67          91
## 7 0840513552 SCL H~          58          83          76          58          78
## 8 0941545784 GRITM~          46          86          81          54          NA
## 9 1052612785 COMMU~          65          84          80          58          87
## 10 1254237779 OUR L~          61          NA          NA          65          NA
## # i 85 more rows
## # i 1 more variable: CAHPS_GRP_12 <dbl>
```