Examples

Example of *tibble()* and *tribble()* functions to create a data_frame.

```r
library(tidyverse)

BP_narrow <- tibble(
  x = c("a", "b"),
  y = c(1,2),
  z = c(3.6, 8.5)
)

BP_narrow <- tribble(
  ~x, ~y,  ~z,
  "a", 2,  3.6,
  "b", 1,  8.5
)
```

Example of *spread()* and *gather()*.

```r
BP_narrow <- tribble(
  ~subject, ~when, ~spb,
  "BHO", "before", 160,
  "GWB", "before", 120,
  "WJC", "before", 105,
  "BHO", "after", 115,
  "GWB", "after", 135,
  "WJC", "after", 145
)
```

```r
BP_wide <- BP_narrow %>% spread(key = when, value = spb)
BP_wide
```

```
## # A tibble: 3 x 3
##   subject after before
##   <chr>   <dbl>  <dbl>
## 1 BHO       115    160
## 2 GWB       135    120
## 3 WJC       145    105
```

```r
BP_narrow <- BP_wide %>% gather(key = when, value = spb, after, before)
BP_narrow
```

```
## # A tibble: 6 x 3
##   subject when     spb
##   <chr>   <chr>  <dbl>
## 1 BHO     after    115
## 2 GWB     after    135
## 3 WJC     after    145
## 4 BHO     before   160
```

```
## 5 GWB      before   120
## 6 WJC      before   105
```

Example *spread()*

Try the code in Section 5.2.4 on pages 101-103

```r
library(babynames)
```

```r
babynames
```

```
## # A tibble: 1,858,689 x 5
##     year sex   name           n   prop
##    <dbl> <chr> <chr>      <int>  <dbl>
##  1  1880 F     Mary        7065 0.0724
##  2  1880 F     Anna        2604 0.0267
##  3  1880 F     Emma        2003 0.0205
##  4  1880 F     Elizabeth   1939 0.0199
##  5  1880 F     Minnie      1746 0.0179
##  6  1880 F     Margaret    1578 0.0162
##  7  1880 F     Ida         1472 0.0151
##  8  1880 F     Alice       1414 0.0145
##  9  1880 F     Bertha      1320 0.0135
## 10  1880 F     Sarah       1288 0.0132
## # ... with 1,858,679 more rows
```

Example *for*

Try the code on pages 104-105

Example *apply()*

Try the code on pages 106-107