

# Data Wrangling in R

*Pramod Duvvuri*

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## Tibble

```
library(tidyverse)
```

```
## -- Attaching packages ----- tidyverse 1.2.1 --
```

```
## v ggplot2 3.1.0      v purrr  0.3.2
## v tibble  2.1.1      v dplyr  0.8.0.1
## v tidyr   0.8.3      v stringr 1.4.0
## v readr   1.3.1      v forcats 0.4.0
```

```
## -- Conflicts ----- tidyverse_conflicts() --
```

```
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(nycflights13)
```

```
as_tibble(iris) # coerce into a tibble
```

```
## # A tibble: 150 x 5
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
##   <dbl>         <dbl>    <dbl>         <dbl> <fct>
## 1         5.1         3.5        1.4         0.2 setosa
## 2         4.9         3          1.4         0.2 setosa
## 3         4.7         3.2        1.3         0.2 setosa
## 4         4.6         3.1        1.5         0.2 setosa
## 5         5          3.6        1.4         0.2 setosa
## 6         5.4         3.9        1.7         0.4 setosa
## 7         4.6         3.4        1.4         0.3 setosa
## 8         5          3.4        1.5         0.2 setosa
## 9         4.4         2.9        1.4         0.2 setosa
## 10        4.9         3.1        1.5         0.1 setosa
## # ... with 140 more rows
```

```
tibble(x = 1:5,
       y = 1,
       z = x ^ 2 + 2 * y)
```

```
## # A tibble: 5 x 3
##       x     y     z
##   <int> <dbl> <dbl>
## 1     1     1     3
## 2     2     1     6
## 3     3     1    11
## 4     4     1    18
## 5     5     1    27
```

```
flights %>% print(n = 10) # width = Inf can be used to print more columns
```

```
## # A tibble: 336,776 x 19
```

```
##      year month   day dep_time sched_dep_time dep_delay arr_time
##      <int> <int> <int>   <int>         <int>      <dbl>   <int>
##  1  2013     1     1     517           515         2     830
##  2  2013     1     1     533           529         4     850
##  3  2013     1     1     542           540         2     923
##  4  2013     1     1     544           545        -1    1004
##  5  2013     1     1     554           600        -6     812
##  6  2013     1     1     554           558        -4     740
##  7  2013     1     1     555           600        -5     913
##  8  2013     1     1     557           600        -3     709
##  9  2013     1     1     557           600        -3     838
## 10  2013     1     1     558           600        -2     753
## # ... with 3.368e+05 more rows, and 12 more variables:
## #   sched_arr_time <int>, arr_delay <dbl>, carrier <chr>, flight <int>,
## #   tailnum <chr>, origin <chr>, dest <chr>, air_time <dbl>,
## #   distance <dbl>, hour <dbl>, minute <dbl>, time_hour <dtm>
```

```
#flights %>% View()
```

```
df <- tibble(x = runif(5),
             y = rnorm(5))
```

```
df
```

```
## # A tibble: 5 x 2
##       x         y
##   <dbl> <dbl>
## 1 0.975 -0.610
## 2 0.482 -0.721
## 3 0.536  0.253
## 4 0.713 -1.89
## 5 0.642 -0.383
```