Latihan Modul 7

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2022-11-01

```
library(dslabs)
library(tidyverse)
```

```
## ── Attaching packages ─────────────────────────────────────── tidyverse
1.3.2 ──
## ✔ggplot2 3.3.6      ✔purrr   0.3.4
## ✔tibble  3.1.8      ✔dplyr   1.0.10
## ✔tidyr   1.2.1      ✔stringr 1.4.1
## ✔readr   2.1.2      ✔forcats 0.5.2
## ── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
## ✖dplyr::filter() masks stats::filter()
## ✖dplyr::lag()    masks stats::lag()
```

```
data(murders)
```

1.Gunakan as_tibble untuk mengkonversi tabel dataset “US murders” dalam bentuk tibble dan simpan dalam objek baru bernama ‘murders_tibble’.

```
murders_tibble <- murders%>%as_tibble()
```

2.Gunakan fungsi group_by untuk mengkonversi dataset “US murders: menjadi sebuah tibble yang dikelompokkan berdasarkan ‘region’.

```
murders%>%as_tibble()%>%group_by(region)
```

```
## # A tibble: 51 × 5
## # Groups:   region [4]
##    state                abb   region    population total
##    <chr>                <chr> <fct>          <dbl> <dbl>
##  1 Alabama              AL    South        4779736   135
##  2 Alaska               AK    West          710231    19
##  3 Arizona              AZ    West         6392017   232
##  4 Arkansas             AR    South        2915918    93
##  5 California           CA    West        37253956  1257
##  6 Colorado             CO    West         5029196    65
##  7 Connecticut          CT    Northeast    3574097    97
##  8 Delaware             DE    South         897934    38
##  9 District of Columbia DC    South         601723    99
## 10 Florida              FL    South       19687653   669
## # … with 41 more rows
```

3.Tulis script tidyverse yang menghasilkan output yang sama dengan perintah berikut : exp(mean(log(murders$population)))

Gunakan operator pipe sehingga setiap fungsi dapat dipanggil tanpa menambahkan argumen.Gunakan dot operator untuk mengakses populasi.

```
murders%>%.$population%>%log()%>%mean()%>%exp()
```

```
## [1] 3675209
```

4.Gunakan map_df untuk membuat data frame yang terdiri dari tiga kolom: 'n','s_n', dan 's_n_2'.Kolom pertama harus berisi angka 1 hingga 100.Kolom kedua dan ketiga masing-masing harus berisi penjumlahan 1 hingga n, dimana n menyatakan jumlah baris.

```
mapping <- function(n){
  baris<-1:n
  result<-0
  for(i in baris){
    result <- result + i
    result2 <- result^2
  }
  tibble(
    n,
    s_n = result,
    s_n_2 = result2
  )
}

x = 1:100
map_df(x,mapping)
```

```
## # A tibble: 100 × 3
##        n   s_n s_n_2
##    <int> <dbl> <dbl>
##  1     1     1     1
##  2     2     3     9
##  3     3     6    36
##  4     4    10   100
##  5     5    15   225
##  6     6    21   441
##  7     7    28   784
##  8     8    36  1296
##  9     9    45  2025
## 10    10    55  3025
## # … with 90 more rows
```

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

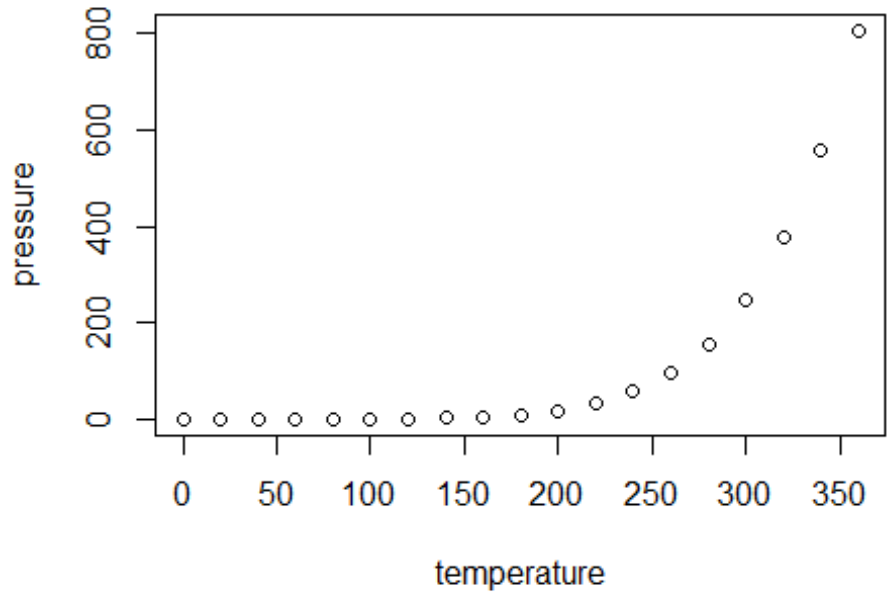
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.