Task#5

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```
set.seed(42)

library(tidyverse)
```

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

```
## v ggplot2 3.1.1       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(magrittr)
```

```
##
## Attaching package: 'magrittr'
```

```
## The following object is masked from 'package:purrr':
##
##     set_names
```

```
## The following object is masked from 'package:tidyr':
##
##     extract
```

```
library(dplyr)
```

```
data_analysis = function(df, row_select, column_select){
  analysis = function(x){
    if (is.numeric(x)){
      return(mean(x))
    } else {
      return(summary(factor(x)))
    }
  }
  data = df[row_select, column_select]
  df %<>% lapply(analysis) %<>% list()
  list(data, df)
}
```

‘‘‘

```
data_analysis(ChickWeight, c(1:23), c(1:4))
```

```
## [[1]]
## Grouped Data: weight ~ Time | Chick
##    weight Time Chick Diet
## 1      42    0     1    1
## 2      51    2     1    1
```

```
## 3      59    4     1    1
## 4      64    6     1    1
## 5      76    8     1    1
## 6      93   10     1    1
## 7     106   12     1    1
## 8     125   14     1    1
## 9     149   16     1    1
## 10    171   18     1    1
## 11    199   20     1    1
## 12    205   21     1    1
## 13     40    0     2    1
## 14     49    2     2    1
## 15     58    4     2    1
## 16     72    6     2    1
## 17     84    8     2    1
## 18    103   10     2    1
## 19    122   12     2    1
## 20    138   14     2    1
## 21    162   16     2    1
## 22    187   18     2    1
## 23    209   20     2    1
##
## [[2]]
## [[2]][[1]]
## [[2]][[1]]$weight
## [1] 121.8183
##
## [[2]][[1]]$Time
## [1] 10.71799
##
## [[2]][[1]]$Chick
## 18 16 15 13  9 20 10  8 17 19  4  6 11  3  1 12  2  5 14  7 24 30 22 23 27
##  2  7  8 12 12 12 12 11 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12
## 28 26 25 29 21 33 37 36 31 39 38 32 40 34 35 44 45 43 41 47 49 46 50 42 48
## 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 10 12 12 12 12 12 12 12 12 12
##
## [[2]][[1]]$Diet
##   1   2   3   4
## 220 120 120 118
```

```
data_analysis(chickwts, c(1:23), c(1:2))
```

```
## [[1]]
##    weight      feed
## 1     179 horsebean
## 2     160 horsebean
## 3     136 horsebean
## 4     227 horsebean
## 5     217 horsebean
## 6     168 horsebean
## 7     108 horsebean
## 8     124 horsebean
## 9     143 horsebean
## 10    140 horsebean
## 11    309   linseed
```

```
## 12    229   linseed
## 13    181   linseed
## 14    141   linseed
## 15    260   linseed
## 16    203   linseed
## 17    148   linseed
## 18    169   linseed
## 19    213   linseed
## 20    257   linseed
## 21    244   linseed
## 22    271   linseed
## 23    243   soybean
##
## [[2]]
## [[2]][[1]]
## [[2]][[1]]$weight
## [1] 261.3099
##
## [[2]][[1]]$feed
##    casein horsebean   linseed  meatmeal   soybean sunflower
##        12        10        12        11        14        12
```