

# HW3\_Min

*Jie Min*

*9/17/2019*

a

```
library(dplyr)
```

```
##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##   filter, lag

## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union
```

```
library(tidyverse)
```

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

## v ggplot2 3.2.1    v readr    1.3.1
## v tibble  2.1.3    v purrr   0.3.2
## v tidyr   0.8.3    v stringr 1.4.0
## v ggplot2 3.2.1    v forcats 0.4.0

## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
url<-"http://www2.isye.gatech.edu/~jeffwu/wuhamadabook/data/Sensory.dat"
srow<-seq(1,28,3)
```

```
data<-read.table(url,header=FALSE,skip=2,fill=TRUE)
data[srow,1:5]<-data[srow,2:6]
```

```
sort(rep(1:10,3)) %>%
cbind(data) %>%
  select(1:6) %>%
  'colnames<-'(c('Item','1','2','3','4','5')) %>%
  select(2:6) %>%
summary
```

```
##           1           2           3           4
## Min.      :0.900   Min.      :1.500   Min.      :0.800   Min.      :0.900
## 1st Qu.:2.850   1st Qu.:3.450   1st Qu.:2.650   1st Qu.:3.925
```

```
## Median :4.550 Median :4.950 Median :4.150 Median :5.400
## Mean :4.593 Mean :5.063 Mean :4.167 Mean :5.193
## 3rd Qu.:5.950 3rd Qu.:6.225 3rd Qu.:5.400 3rd Qu.:6.275
## Max. :9.000 Max. :9.200 Max. :9.000 Max. :9.400
##      5
## Min. :0.700
## 1st Qu.:2.250
## Median :4.600
## Mean :4.267
## 3rd Qu.:5.800
## Max. :8.800
```

b

```
url<-"http://www2.isye.gatech.edu/~jeffwu/wuhamadabook/data/LongJumpData.dat"
data<-read.table(url,skip=1,fill=TRUE)
try=data

data[,c(1,3,5,7)]<-data[,c(1,3,5,7)]+1990

c(data[,1],data[,3],data[,5],data[,7])%>%
data_frame(c(data[,2],data[,4],data[,6],data[,8])) %>%
  'colnames<-'(c('year','Longjump'))%>%
  drop_na()%>%
  summary
```

```
## Warning: `data_frame()` is deprecated, use `tibble()`.
## This warning is displayed once per session.
```

```
##      year      Longjump
## Min. :1986 Min. :249.8
## 1st Qu.:2011 1st Qu.:295.4
## Median :2040 Median :308.1
## Mean :2035 Mean :310.3
## 3rd Qu.:2061 3rd Qu.:327.5
## Max. :2082 Max. :350.5
```

c

```
url<-'http://www2.isye.gatech.edu/~jeffwu/wuhamadabook/data/BrainandBodyWeight.dat'

data<-read.table(url,skip=1,header = FALSE,fill=TRUE)

c(data[,1],data[,3],data[,5])%>%
data_frame(c(data[,2],data[,4],data[,6])) %>%
  'colnames<-'(c('Bodywt','Brainwt'))%>%
  drop_na()%>%
  summary
```

```
##      Bodywt      Brainwt
## Min. : 0.005 Min. : 0.10
## 1st Qu.: 0.600 1st Qu.: 4.25
```

```
## Median : 3.342 Median : 17.25
## Mean : 198.790 Mean : 283.13
## 3rd Qu.: 48.203 3rd Qu.: 166.00
## Max. :6654.000 Max. :5712.00
```

d

```
url<-'http://www2.isye.gatech.edu/~jeffwu/wuhamadabook/data/tomato.dat'

data<- readLines(url)[c(3,4)]%>%
  gsub(" ",',',.)%>%
  read.table(text=.,comment.char = '*',sep=',',fill=TRUE)%>%
  unname

data<-data[,-1]%>%
  as.matrix

id1<-which(is.na(data[1,])==TRUE)
id2<-which(is.na(data[2,])==TRUE)

data[1,-id1]%>%
rbind(data[2,-id2])%>%
'rownames<-'(c('Ife#1','PusaEarlyDwarf'))%>%
'colnames<-'(c(10000,10000,10000,20000,20000,20000,30000,30000,30000))%>%
  as.data.frame%>%
  summary
```

```
##      10000      10000      10000      20000
## Min.   : 8.1    Min.   : 8.60   Min.   :10.10  Min.   :12.70
## 1st Qu.:10.1    1st Qu.:10.28  1st Qu.:11.95  1st Qu.:13.68
## Median :12.1    Median :11.95   Median :13.80  Median :14.65
## Mean   :12.1    Mean    :11.95   Mean    :13.80  Mean    :14.65
## 3rd Qu.:14.1    3rd Qu.:13.62  3rd Qu.:15.65  3rd Qu.:15.62
## Max.   :16.1    Max.    :15.30   Max.    :17.50  Max.    :16.60
##      20000      20000      30000      30000
## Min.   :13.70   Min.   :11.50   Min.   :14.4    Min.   :15.40
## 1st Qu.:15.07   1st Qu.:13.25   1st Qu.:16.0    1st Qu.:16.05
## Median :16.45   Median :15.00   Median :17.6    Median :16.70
## Mean   :16.45   Mean    :15.00   Mean    :17.6    Mean    :16.70
## 3rd Qu.:17.82   3rd Qu.:16.75   3rd Qu.:19.2    3rd Qu.:17.35
## Max.   :19.20   Max.    :18.50   Max.    :20.8    Max.    :18.00
##      30000
## Min.   :13.70
## 1st Qu.:15.53
## Median :17.35
## Mean   :17.35
## 3rd Qu.:19.18
## Max.   :21.00
```