

RStudio

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Source

Console Terminal Background Jobs

```
R version 4.3.2 (2023-10-31 ucrt) -- "Eye Holes"
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Platform: x86_64-w64-mingw32/x64 (64-bit)

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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[Workspace loaded from ~/.Rdata]

Loading required package: ROCR
> data<- read.csv("D:/R-programming/HMEQ_Loss.csv")
> data$TARGET_BAD_FLAG<-as.factor(data$TARGET_BAD_FLAG)
> str(data)
'data.frame':   5960 obs. of  14 variables:
 $ TARGET_BAD_FLAG: Factor w/ 2 levels "0","1": 2 2 2 1 2 2 2 2 ...
 $ TARGET_LOSS_AMT: int   641 1109 767 1425 NA 335 1841 373 1217 1523 ...
 $ LOAN           : int  1100 1300 1500 1500 1700 1800 1800 2000 2000 ...
 $ MORTDUE        : num  25860 70053 13500 NA 97800 ...
 $ VALUE          : num  39025 68400 16700 NA 112000 ...
 $ REASON         : chr   "HomeImp" "HomeImp" "HomeImp" "" ...
 $ JOB            : chr   "other" "other" "other" "" ...
 $ VOY            : num   10.5 7 4 NA 3 9 5 11 3 16 ...
 $ DEROG          : int    0 0 NA 0 0 3 0 0 ...
 $ DELINQ         : int    0 2 0 NA 0 2 0 2 0 ...
 $ CLAGE          : num   94.4 121.8 149.5 NA 93.3 ...
 $ NINQ           : int    1 0 1 NA 0 1 1 0 1 ...
 $ CLNO           : int    9 14 10 NA 14 8 17 8 12 13 ...
 $ DEBTINC        : num   NA NA NA NA NA ...
> |
```

Environment History Connections Tutorial

R • Global Environment

aucR	List of 1
cdc	20000 obs. of 9 variables
ChickWeight	578 obs. of 4 variables
continuous_data	5960 obs. of 29 variables
ctrl	List of 27
D	List of 9
data	5960 obs. of 14 variables

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 $ NINQ           : int    1 0 1 NA 0 1 1 0 1 ...
 $ CLNO           : int    9 14 10 NA 14 8 17 8 12 13 ...
 $ DEBTINC        : num   NA NA NA NA NA ...
> |

> library(psych)
> library(cowplot)
> library(patchwork)

Attaching package: 'patchwork'

The following object is masked from 'package:cowplot':

  align_plots

> library(caret)
Loading required package: ggplot2
Attaching package: 'ggplot2'

The following objects are masked from 'package:psych':

  %%, alpha

Loading required package: lattice
> library(tidyverse)
— Attaching core tidyverse packages — tidyverse 2.0.0 —
✓ dplyr 1.1.4 ✓ readr 2.1.5
✓ forcats 1.0.0 ✓ stringr 1.5.1
✓ lubridate 1.9.3 ✓ tibble 3.2.1
✓ purrr 1.0.2 ✓ tidyr 1.3.0
— Conflicts — tidyverse_conflicts() —
X ggplot2::%%() masks psych::%%()
X ggplot2::alpha() masks psych::alpha()
X dplyr::filter() masks stats::filter()
X dplyr::lag() masks stats::lag()
X purrr::lift() masks caret::lift()
X lubridate::stamp() masks cowplot::stamp()
! Use the conflicted package to force all conflicts to become errors
Warning message:
package 'readr' was built under R version 4.3.3
> describe.by(data[,c(6,7)], group = data$TARGET_BAD_FLAG)

Descriptive statistics by group
group: 0
```

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RStudio interface showing a console window with R code and output. The code includes a warning message about the deprecated `describe.by` function and a `head(data)` command. The output displays a table of data with columns: `TARGET_BAD_FLAG`, `TARGET_LOSS_AMT`, `LOAN`, `MORTDUE`, `VALUE`, `REASON`, `JOB`, `YOJ`, `DEROG`, `DELINQ`, `CLAGE`, `NINQ`, `CLNO`, and `DEBTINC`.

```
R - R4.3.2 ~ /  
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R - R4.3.2 ~ /  
VALUE 5 1084 981.2 85 /4339.82 82000.00 8/691.33 40938.29 8800.00 855909.00  
YOJ 6 1124 8.03 7.10 6.00 7.09 5.93 0.00 41.00  
DEROG 7 1102 0.71 1.47 0.00 0.35 0.00 0.00 10.00  
DELINQ 8 1117 1.23 1.90 0.00 0.82 0.00 0.00 15.00  
CLAGE 9 1111 150.19 84.95 132.87 142.77 66.34 0.00 1168.23  
NINQ 10 1114 1.78 2.25 1.00 1.35 1.48 0.00 17.00  
CLNO 11 1136 21.21 11.81 20.00 20.45 10.38 0.00 71.00  
DEBTINC 12 403 39.39 17.72 38.08 37.98 8.01 0.52 203.31  
  
range skew kurtosis se  
TARGET_BAD_FLAG* 0.00 NaN NaN 0.00  
TARGET_LOSS_AMT 78763.00 1.81 4.78 314.35  
LOAN 76300.00 1.66 3.93 331.14  
MORTDUE 397487.00 2.28 9.62 1446.06  
VALUE 847109.00 4.87 40.70 2257.91  
YOJ 41.00 1.21 1.45 0.21  
DEROG 10.00 3.08 11.16 0.04  
DELINQ 15.00 2.30 7.15 0.06  
CLAGE 1168.23 3.47 35.04 2.55  
NINQ 17.00 2.10 5.97 0.07  
CLNO 71.00 0.81 1.31 0.35  
DEBTINC 202.79 3.53 25.39 0.88  
  
Warning messages:  
1: describe.by is deprecated. Please use the describeBy function  
2: In FUN(newX[, i], ...) : no non-missing arguments to min; returning Inf  
3: In FUN(newX[, i], ...) :  
no non-missing arguments to max; returning -Inf  
> head(data)  
TARGET_BAD_FLAG TARGET_LOSS_AMT LOAN MORTDUE VALUE REASON JOB YOJ DEROG DELINQ CLAGE  
1 1 641 1100 25860 39025 HomeImp Other 10.5 0 0 94.36667  
2 1 1109 1300 70053 68400 HomeImp Other 7.0 0 2 121.83333  
3 1 767 1500 13500 16700 HomeImp Other 4.0 0 0 149.46667  
4 1 1425 1500 NA NA NA NA NA NA  
5 0 NA 1700 97800 112000 HomeImp Office 3.0 0 0 93.33333  
6 1 335 1700 30548 40320 HomeImp Other 9.0 0 0 101.46600  
  
NINQ CLNO DEBTINC  
1 1 9 NA  
2 0 14 NA  
3 1 10 NA  
4 NA NA NA  
5 0 14 NA  
6 1 8 37.11361  
  
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Haze
```

RStudio interface showing a console window with R code and output. The code includes a warning message about the deprecated `describe.by` function and a `colSums(is.na(data))` command. The output displays a table of data with columns: `TARGET_BAD_FLAG`, `TARGET_LOSS_AMT`, `LOAN`, `MORTDUE`, `VALUE`, `REASON`, `JOB`, `YOJ`, `DEROG`, `DELINQ`, `CLAGE`, `NINQ`, `CLNO`, and `DEBTINC`.

```
R - R4.3.2 ~ /  
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Source  
Console Terminal Background Jobs  
R - R4.3.2 ~ /  
TARGET_BAD_FLAG* 0.00 NaN NaN 0.00  
TARGET_LOSS_AMT 78763.00 1.81 4.78 314.35  
LOAN 76300.00 1.66 3.93 331.14  
MORTDUE 397487.00 2.28 9.62 1446.06  
VALUE 847109.00 4.87 40.70 2257.91  
YOJ 41.00 1.21 1.45 0.21  
DEROG 10.00 3.08 11.16 0.04  
DELINQ 15.00 2.30 7.15 0.06  
CLAGE 1168.23 3.47 35.04 2.55  
NINQ 17.00 2.10 5.97 0.07  
CLNO 71.00 0.81 1.31 0.35  
DEBTINC 202.79 3.53 25.39 0.88  
  
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no non-missing arguments to max; returning -Inf  
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TARGET_BAD_FLAG TARGET_LOSS_AMT LOAN MORTDUE VALUE REASON JOB YOJ DEROG DELINQ CLAGE  
1 1 641 1100 25860 39025 HomeImp Other 10.5 0 0 94.36667  
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3 1 767 1500 13500 16700 HomeImp Other 4.0 0 0 149.46667  
4 1 1425 1500 NA NA NA NA NA NA  
5 0 NA 1700 97800 112000 HomeImp Office 3.0 0 0 93.33333  
6 1 335 1700 30548 40320 HomeImp Other 9.0 0 0 101.46600  
  
NINQ CLNO DEBTINC  
1 1 9 NA  
2 0 14 NA  
3 1 10 NA  
4 NA NA NA  
5 0 14 NA  
6 1 8 37.11361  
  
colSums(is.na(data))  
TARGET_BAD_FLAG TARGET_LOSS_AMT LOAN MORTDUE VALUE REASON  
0 4771 0 518 112 0  
JOB YOJ DEROG DELINQ CLAGE NINQ  
0 515 708 580 308 510  
CLNO DEBTINC  
222 1267  
  
80°F  
Haze
```





