p44

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```
library(haven)
bank_loan_df <- read_sav("P4_bankloan_5000_clients.sav")

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

def_loan<-filter(bank_loan_df,defaulted_loan==1)
non_def_loan<-filter(bank_loan_df,defaulted_loan==0)</pre>
```

Summary of Defaulted Loan

```
summary(def_loan)
```

```
##
                    education_level current_employ_year current_address_year
         age
##
           :20.00
                    Min.
                           :1.000
                                    Min.
                                          : 0.00
                                                        Min.
                                                              : 0.000
   Min.
                    1st Qu.:1.000
                                                        1st Qu.: 2.000
##
   1st Qu.:27.00
                                    1st Qu.: 1.00
  Median :31.00
                    Median :2.000
                                    Median: 4.00
                                                        Median : 4.000
           :32.86
                           :1.927
                                          : 5.49
                                                               : 5.707
##
   Mean
                    Mean
                                    Mean
                                                        Mean
   3rd Qu.:38.00
                    3rd Qu.:3.000
                                    3rd Qu.: 8.00
                                                        3rd Qu.: 8.000
##
##
           :56.00
                           :5.000
                                           :36.00
                                                               :31.000
  {\tt Max.}
                   Max.
                                    Max.
                                                        Max.
   income_household debt_income_ratio credit_card_debt
                                                             other_debts
##
  Min.
          : 12.10
                      Min.
                            : 0.480
                                              : 0.01033
                                                                   : 0.0623
                                        \mathtt{Min}.
                                                            \mathtt{Min}.
   1st Qu.: 22.07
                      1st Qu.: 8.258
                                        1st Qu.: 0.60977
                                                            1st Qu.: 1.3009
##
##
  Median : 30.10
                      Median :13.555
                                        Median: 1.35296
                                                            Median: 2.5013
##
  Mean
         : 44.01
                      Mean
                           :14.437
                                        Mean : 2.61330
                                                            Mean
                                                                   : 4.1821
   3rd Qu.: 46.73
##
                      3rd Qu.:19.392
                                        3rd Qu.: 2.82203
                                                            3rd Qu.: 4.5201
## Max.
           :2461.70
                      Max. :44.620
                                        Max. :139.58061
                                                            Max.
                                                                   :416.5174
##
  defaulted loan
## Min.
           :1
##
   1st Qu.:1
## Median :1
## Mean
## 3rd Qu.:1
## Max.
```

Summary of Non Defaulted Loan

summary(non_def_loan)

```
education_level current_employ_year current_address_year
        age
                                  Min. : 0.000
##
   Min.
         :20.00
                   Min. :1.000
                                                     Min. : 0.000
   1st Qu.:30.00
                   1st Qu.:1.000
                                  1st Qu.: 4.000
                                                     1st Qu.: 3.000
##
  Median :36.00
                   Median :1.000
                                  Median : 8.000
                                                     Median : 7.000
## Mean
         :36.24
                   Mean :1.665
                                  Mean : 9.782
                                                     Mean : 8.975
## 3rd Qu.:42.00
                   3rd Qu.:2.000
                                  3rd Qu.:14.000
                                                     3rd Qu.:13.000
## Max.
          :58.00
                   Max.
                         :5.000
                                  Max.
                                        :38.000
                                                     Max.
                                                           :37.000
## income_household debt_income_ratio credit_card_debt
                                                         other_debts
## Min. : 12.30
                   Min. : 0.080
                                     Min. : 0.005292
                                                        Min. : 0.00937
                    1st Qu.: 4.480
## 1st Qu.: 25.50
                                     1st Qu.: 0.350709
                                                        1st Qu.: 0.90751
## Median : 35.90
                   Median : 7.570
                                     Median : 0.790265
                                                        Median: 1.79664
## Mean : 48.91
                                                        Mean : 2.89534
                   Mean : 8.613
                                     Mean : 1.297557
   3rd Qu.: 56.92
                    3rd Qu.:11.540
##
                                     3rd Qu.: 1.596514
                                                        3rd Qu.: 3.54391
##
   Max.
         :433.00
                    Max. :34.250
                                     Max. :18.044636
                                                        Max. :53.40152
##
   defaulted_loan
  Min. :0
##
   1st Qu.:0
## Median:0
## Mean :0
## 3rd Qu.:0
## Max. :0
```