

데이터 불러오기

```
train <- read.csv(file="D:/credit/train1.csv")
str(train)
```

```
## 'data.frame':    100000 obs. of  38 variables:
## $ X              : int  1 2 3 4 5 6 7 8 9 10 ...
## $ ID             : int  5634 5635 5636 5637 5638 5639 5640 5641 5646 5647 ...
## $ Customer_ID    : chr   "CUS_0xd40" "CUS_0xd40" "CUS_0xd40" "CUS_0xd40" ...
## $ Month          : int   1 2 3 4 5 6 7 8 1 2 ...
## $ Name           : chr   "Aaron Maashoh" "Aaron Maashoh" "Aaron Maashoh" "Aaron Maashoh" ...
## $ Age            : int   23 23 23 23 23 23 23 23 28 28 ...
## $ SSN            : chr   "821-00-0265" "821-00-0265" "821-00-0265" "821-00-0265" ...
## $ Occupation     : chr   "Scientist" "Scientist" "Scientist" "Scientist" ...
## $ Annual_Income  : chr   "19114.12" "19114.12" "19114.12" "19114.12" ...
## $ Monthly_Inhand_Salary : num  1825 1825 1825 1825 1825 ...
## $ Num_Bank_Accounts : int   3 3 3 3 3 3 3 3 2 2 ...
## $ Num_Credit_Card : int   4 4 4 4 4 4 4 4 4 4 ...
## $ Interest_Rate  : int   3 3 3 3 3 3 3 3 6 6 ...
## $ Num_of_Loan    : int   4 4 4 4 4 4 4 4 1 1 ...
## $ Type_of_Loan   : chr   "Auto Loan, Credit-Builder Loan, Personal Loan, and Home Equity Loan" "Auto Loan, Credit-Builder Loan, Personal Loan, and Home Equity Loan" "Auto Loan, Credit-Builder Loan, Personal Loan, and Home Equity Loan" "Auto Loan, Credit-Builder Loan, Personal Loan, and Home Equity Loan" ...
## $ Delay_from_due_date : int   3 -1 3 5 6 8 3 3 3 7 ...
## $ Num_of_Delayed_Payment : num  7 6.5 7 4 6.5 4 8 6 4 1 ...
## $ Changed_Credit_Limit : num  11.27 11.27 10.27 6.27 11.27 ...
## $ Num_Credit_Inquiries : num  4 4 4 4 4 4 4 4 2 2 ...
## $ Credit_Mix     : chr   "" "Good" "Good" "Good" ...
## $ Outstanding_Debt : num  810 810 810 810 810 ...
## $ Credit_Utilization_Ratio : num  26.8 31.9 28.6 31.4 24.8 ...
## $ Credit_History_Age : int  265 266 267 268 269 270 271 272 319 320 ...
## $ Payment_of_Min_Amount : chr   "No" "No" "No" "No" ...
## $ Total_EMI_per_month : num  49.6 49.6 49.6 49.6 49.6 ...
## $ Amount_invested_monthly : num  80.4 118.3 81.7 199.5 41.4 ...
## $ Payment_Behaviour : chr   "High_spent_Small_value_payments" "Low_spent_Large_value_payments" "Low_spent_Medium_value_payments" "Low_spent_Small_value_payments" ...
## $ Monthly_Balance  : num  312 285 331 223 341 ...
## $ Credit_Score     : chr   "Good" "Good" "Good" "Good" ...
## $ AutoLoan         : int   1 1 1 1 1 1 1 1 0 0 ...
## $ CreditBuilderLoan : int   1 1 1 1 1 1 1 1 1 1 ...
## $ PersonalLoan     : int   1 1 1 1 1 1 1 1 0 0 ...
## $ HomeEquityLoan   : int   1 1 1 1 1 1 1 1 0 0 ...
## $ NotSpecified     : int   0 0 0 0 0 0 0 0 0 0 ...
## $ MortgageLoan     : int   0 0 0 0 0 0 0 0 0 0 ...
## $ StudentLoan      : int   0 0 0 0 0 0 0 0 0 0 ...
## $ DebtConsolidationLoan : int  0 0 0 0 0 0 0 0 0 0 ...
## $ PaydayLoan       : int   0 0 0 0 0 0 0 0 0 0 ...
```

전처리 다시하기

```
# 범주형 변수 factor형으로 변환
train$Credit_Score <- as.factor(train$Credit_Score)
train$Payment_Behaviour <- as.factor(train$Payment_Behaviour)
train$Payment_of_Min_Amount <- as.factor(train$Payment_of_Min_Amount)
train$Credit_Mix <- as.factor(train$Credit_Mix)
train$Type_of_Loan <- as.factor(train$Type_of_Loan)
train$Annual_Income <- as.numeric(gsub("_", "", train$Annual_Income))
train$Occupation <- as.factor(train$Occupation)
```

```
# 반올림하여 정리
x <- c()
y <- c()
for(i in 1 : 38){
  x[i] <- is.integer(train[,i])
  y[i] <- is.factor(train[,i])
}
x
```

```
## [1] TRUE TRUE FALSE TRUE FALSE TRUE FALSE FALSE FALSE FALSE TRUE TRUE
## [13] TRUE TRUE FALSE TRUE FALSE FALSE FALSE FALSE FALSE FALSE TRUE FALSE
## [25] FALSE FALSE FALSE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE
## [37] TRUE TRUE
```

y

```
## [1] FALSE FALSE FALSE FALSE FALSE FALSE FALSE TRUE FALSE FALSE FALSE FALSE
## [13] FALSE FALSE TRUE FALSE FALSE FALSE FALSE TRUE FALSE FALSE FALSE TRUE
## [25] FALSE FALSE TRUE FALSE TRUE FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [37] FALSE FALSE
```

```
train$Credit_Utilization_Ratio <- round(train$Credit_Utilization_Ratio, 2)
train$Total_EMI_per_month <- round(train$Total_EMI_per_month, 2)
train$Amount_invested_monthly <- round(train$Amount_invested_monthly, 2)
train$Monthly_Balance <- round(train$Monthly_Balance, 2)
train$Changed_Credit_Limit <- round(train$Changed_Credit_Limit, 2)
train$Annual_Income <- round(train$Annual_Income, 3)
train$Monthly_Inhand_Salary <- round(train$Monthly_Inhand_Salary, 4)
train$Num_of_Delayed_Payment <- round(train$Num_of_Delayed_Payment, 0)
train$Num_Credit_Inquiries <- round(train$Num_Credit_Inquiries, 0)
```

메모리 사이즈 확대

```
memory.size()
```

```
## [1] 164.46
```

```
memory.size(max=TRUE)
```

```
## [1] 165.69
```

```
memory.limit(50000)
```

```
## [1] 50000
```

순서형 로지스틱 다중회귀분석

model 1

```
library(MASS)  
# install.packages("AER")  
library(AER)
```

```
## 필요한 패키지를 로딩중입니다: car
```

```
## 필요한 패키지를 로딩중입니다: carData
```

```
## 필요한 패키지를 로딩중입니다: lmtest
```

```
## 필요한 패키지를 로딩중입니다: zoo
```

```
##  
## 다음의 패키지를 부착합니다: 'zoo'
```

```
## The following objects are masked from 'package:base':  
##  
##      as.Date, as.Date.numeric
```

```
## 필요한 패키지를 로딩중입니다: sandwich
```

```
## 필요한 패키지를 로딩중입니다: survival
```

```
m <- polr(Credit_Score ~ Month+Age+Occupation+Annual_Income+Monthly_Inhand_Salary+Num_Bank_Accou  
unts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_due_date+Num_of_Delayed_Payment+Chang  
ed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_Debt+Credit_Utilization_Ratio+Credi  
t_History_Age+Total_EMI_per_month+Amount_invested_monthly+Monthly_Balance+AutoLoan+CreditBuilde  
rLoan+PersonalLoan+HomeEquityLoan+NotSpecified+MortgageLoan+StudentLoan+DebtConsolidationLoan+P  
aydayLoan, data=train, Hess=TRUE)
```

```
## Warning in polr(Credit_Score ~ Month + Age + Occupation + Annual_Income + :  
## design appears to be rank-deficient, so dropping some coefs
```

model 2

```
m1 <- polr(Credit_Score ~ AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoa  
n, data=train, Hess=TRUE)
```

model 3

```
m2 <- polr(Credit_Score ~ Month+Age+Occupation+Annual_Income+Monthly_Inhand_Salary+Num_Bank_Acc  
counts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_due_date+Num_of_Delayed_Payment+Chan  
ged_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_Debt+Credit_Utilization_Ratio+Cred  
it_History_Age+Total_EMI_per_month+Amount_invested_monthly+Monthly_Balance+AutoLoan+PersonalLoa  
n+HomeEquityLoan+StudentLoan+DebtConsolidationLoan, data=train, Hess=TRUE)
```

model 4

```
m3 <- polr(Credit_Score ~ Month+Age+Occupation+Annual_Income+Monthly_Inhand_Salary+Num_Bank_Acc  
counts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_due_date+Num_of_Delayed_Payment+Chan  
ged_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_Debt+Credit_Utilization_Ratio+Cred  
it_History_Age+Total_EMI_per_month+Amount_invested_monthly+Monthly_Balance+AutoLoan+CreditBuild  
erLoan+PersonalLoan+HomeEquityLoan+NotSpecified+MortgageLoan+StudentLoan+DebtConsolidationLoan+  
PaydayLoan, data=train, Hess=TRUE)
```

```
## Warning in polr(Credit_Score ~ Month + Age + Occupation + Annual_Income + :  
## design appears to be rank-deficient, so dropping some coefs
```

변수선택법 forward

```
step(polr(Credit_Score ~1,train), scope = list(lower~1, upper = ~Month+Age+Occupation+Annual_In  
come+Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_fr  
om_due_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstan  
ding_Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_mont  
hly+Monthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), dir  
ection="forward")
```

```

## Start:  AIC=200454.4
## Credit_Score ~ 1
##
##
##      Df      AIC
## + Credit_Mix      3 181500
## + Changed_Credit_Limit      1 197626
## + Num_Bank_Accounts      1 198911
## + Num_Credit_Card      1 200151
## + Amount_invested_monthly      1 200191
## + Monthly_Inhand_Salary      1 200196
## + Interest_Rate      1 200210
## + Credit_History_Age      1 200239
## + Month      1 200321
## + Age      1 200325
## + Delay_from_due_date      1 200341
## + Monthly_Balance      1 200366
## + Occupation      14 200400
## + Outstanding_Debt      1 200417
## + PersonalLoan      1 200435
## + Num_of_Loan      1 200444
## + DebtConsolidationLoan      1 200449
## + Credit_Utilization_Ratio      1 200450
## + Num_of_Delayed_Payment      1 200451
## + HomeEquityLoan      1 200451
## + StudentLoan      1 200452
## + AutoLoan      1 200453
## <none>      200454
## + Annual_Income      1 200455
## + Total_EMI_per_month      1 200456
## + Num_Credit_Inquiries      1 200456
##
## Step:  AIC=181500.4
## Credit_Score ~ Credit_Mix
##
##      Df      AIC
## + Interest_Rate      1 179273
## + Credit_History_Age      1 180977
## + Outstanding_Debt      1 181010
## + Num_of_Loan      1 181093
## + Num_Bank_Accounts      1 181143
## + Monthly_Balance      1 181178
## + Delay_from_due_date      1 181187
## + Changed_Credit_Limit      1 181201
## + Monthly_Inhand_Salary      1 181313
## + Month      1 181366
## + StudentLoan      1 181406
## + Age      1 181449
## + AutoLoan      1 181462
## + HomeEquityLoan      1 181474
## + Credit_Utilization_Ratio      1 181476
## + Occupation      14 181478
## + DebtConsolidationLoan      1 181479
## + Annual_Income      1 181492
## + PersonalLoan      1 181493
## + Amount_invested_monthly      1 181498

```

```

## <none> 181500
## + Num_of_Delayed_Payment 1 181502
## + Num_Credit_Inquiries 1 181502
## + Num_Credit_Card 1 181502
## + Total_EMI_per_month 1 181502
##
## Step: AIC=179273.1
## Credit_Score ~ Credit_Mix + Interest_Rate
##
## Df AIC
## + Changed_Credit_Limit 1 178790
## + Monthly_Balance 1 179084
## + Credit_History_Age 1 179103
## + Num_Bank_Accounts 1 179116
## + Num_of_Loan 1 179131
## + Month 1 179134
## + Outstanding_Debt 1 179166
## + Delay_from_due_date 1 179185
## + Monthly_Inhand_Salary 1 179185
## + Num_Credit_Card 1 179210
## + StudentLoan 1 179223
## + Occupation 14 179251
## + Credit_Utilization_Ratio 1 179256
## + Age 1 179258
## + AutoLoan 1 179264
## + Annual_Income 1 179266
## + HomeEquityLoan 1 179269
## + DebtConsolidationLoan 1 179270
## <none> 179273
## + Amount_invested_monthly 1 179275
## + Num_of_Delayed_Payment 1 179275
## + PersonalLoan 1 179275
## + Num_Credit_Inquiries 1 179275
## + Total_EMI_per_month 1 179275
##
## Step: AIC=178789.7
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit
##
## Df AIC
## + Outstanding_Debt 1 178393
## + Credit_History_Age 1 178439
## + Num_of_Loan 1 178539
## + Monthly_Balance 1 178571
## + Num_Bank_Accounts 1 178615
## + Month 1 178650
## + Monthly_Inhand_Salary 1 178691
## + Delay_from_due_date 1 178693
## + StudentLoan 1 178719
## + Num_Credit_Card 1 178740
## + Occupation 14 178766
## + Age 1 178767
## + Credit_Utilization_Ratio 1 178771
## + AutoLoan 1 178771
## + HomeEquityLoan 1 178778
## + DebtConsolidationLoan 1 178780
## + Annual_Income 1 178784

```

```

## + PersonalLoan          1 178789
## <none>                   178790
## + Num_of_Delayed_Payment 1 178791
## + Amount_invested_monthly 1 178792
## + Num_Credit_Inquiries   1 178792
## + Total_EMI_per_month    1 178792
##
## Step: AIC=178392.5
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt
##
##              Df      AIC
## + Credit_History_Age      1 178197
## + Monthly_Balance         1 178215
## + Num_Bank_Accounts       1 178245
## + Month                   1 178252
## + Num_of_Loan             1 178263
## + Num_Credit_Card         1 178308
## + Monthly_Inhand_Salary   1 178316
## + Delay_from_due_date     1 178323
## + StudentLoan             1 178345
## + Occupation              14 178368
## + Credit_Utilization_Ratio 1 178376
## + Age                     1 178377
## + AutoLoan                1 178386
## + Annual_Income           1 178387
## + DebtConsolidationLoan   1 178390
## + HomeEquityLoan          1 178390
## <none>                    178393
## + Amount_invested_monthly 1 178393
## + Num_of_Delayed_Payment  1 178394
## + Num_Credit_Inquiries     1 178394
## + PersonalLoan            1 178395
## + Total_EMI_per_month     1 178395
##
## Step: AIC=178197.3
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Credit_History_Age
##
##              Df      AIC
## + Month              1 178045
## + Monthly_Balance    1 178048
## + Num_Bank_Accounts  1 178064
## + Num_Credit_Card    1 178100
## + Num_of_Loan        1 178122
## + Monthly_Inhand_Salary 1 178132
## + Delay_from_due_date 1 178136
## + StudentLoan        1 178163
## + Occupation         14 178172
## + Credit_Utilization_Ratio 1 178183
## + Age                1 178189
## + Annual_Income      1 178191
## + AutoLoan           1 178195
## + Amount_invested_monthly 1 178197
## + HomeEquityLoan     1 178197
## <none>               178197

```

```

## + DebtConsolidationLoan      1 178198
## + PersonalLoan                1 178199
## + Num_of_Delayed_Payment      1 178199
## + Num_Credit_Inquiries        1 178199
## + Total_EMI_per_month         1 178199
##
## Step: AIC=178045.4
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Credit_History_Age + Month
##
##
##              Df      AIC
## + Monthly_Balance      1 177897
## + Num_Bank_Accounts     1 177911
## + Num_Credit_Card       1 177948
## + Num_of_Loan           1 177971
## + Monthly_Inhand_Salary 1 177981
## + Delay_from_due_date   1 177983
## + StudentLoan           1 178011
## + Occupation            14 178020
## + Credit_Utilization_Ratio 1 178030
## + Age                   1 178036
## + Annual_Income         1 178040
## + AutoLoan              1 178043
## + Amount_invested_monthly 1 178045
## <none>                  178045
## + HomeEquityLoan        1 178045
## + DebtConsolidationLoan 1 178046
## + PersonalLoan          1 178047
## + Num_of_Delayed_Payment 1 178047
## + Num_Credit_Inquiries   1 178047
## + Total_EMI_per_month    1 178047
##
## Step: AIC=177896.7
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance
##
##
##              Df      AIC
## + Num_Bank_Accounts     1 177773
## + Num_Credit_Card       1 177794
## + Delay_from_due_date   1 177838
## + Num_of_Loan           1 177864
## + Occupation            14 177870
## + StudentLoan           1 177872
## + Age                   1 177888
## + Annual_Income         1 177892
## + PersonalLoan          1 177896
## + Credit_Utilization_Ratio 1 177897
## <none>                  177897
## + AutoLoan              1 177897
## + Amount_invested_monthly 1 177898
## + HomeEquityLoan        1 177898
## + Num_of_Delayed_Payment 1 177898
## + Monthly_Inhand_Salary 1 177899
## + DebtConsolidationLoan 1 177899
## + Num_Credit_Inquiries   1 177899
## + Total_EMI_per_month    1 177899

```



```

##
## Step: AIC=177773.2
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##     Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##     Num_Bank_Accounts
##
##
##           Df    AIC
## + Num_Credit_Card      1 177646
## + Delay_from_due_date  1 177737
## + Num_of_Loan          1 177743
## + StudentLoan          1 177747
## + Occupation          14 177748
## + Age                  1 177765
## + Annual_Income        1 177770
## + PersonalLoan         1 177772
## + Credit_Utilization_Ratio 1 177773
## <none>                  177773
## + AutoLoan             1 177773
## + Amount_invested_monthly 1 177774
## + HomeEquityLoan       1 177775
## + Num_of_Delayed_Payment 1 177775
## + DebtConsolidationLoan 1 177775
## + Total_EMI_per_month  1 177775
## + Monthly_Inhand_Salary 1 177775
## + Num_Credit_Inquiries 1 177775
##
## Step: AIC=177645.7
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##     Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##     Num_Bank_Accounts + Num_Credit_Card
##
##
##           Df    AIC
## + Delay_from_due_date  1 177590
## + Num_of_Loan          1 177614
## + Occupation          14 177617
## + StudentLoan          1 177619
## + Age                  1 177637
## + Annual_Income        1 177641
## + PersonalLoan         1 177644
## + AutoLoan             1 177646
## + Credit_Utilization_Ratio 1 177646
## <none>                  177646
## + Amount_invested_monthly 1 177647
## + Num_of_Delayed_Payment 1 177647
## + HomeEquityLoan       1 177648
## + DebtConsolidationLoan 1 177648
## + Monthly_Inhand_Salary 1 177648
## + Total_EMI_per_month  1 177648
## + Num_Credit_Inquiries 1 177648
##
## Step: AIC=177590.2
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##     Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##     Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date
##
##           Df    AIC

```

```

## + Num_of_Loan          1 177560
## + Occupation           14 177562
## + StudentLoan          1 177563
## + Age                  1 177582
## + Annual_Income        1 177586
## + PersonalLoan         1 177588
## + AutoLoan             1 177590
## + Credit_Utilization_Ratio 1 177590
## <none>                 177590
## + Amount_invested_monthly 1 177592
## + Num_of_Delayed_Payment 1 177592
## + HomeEquityLoan       1 177592
## + Monthly_Inhand_Salary 1 177592
## + DebtConsolidationLoan 1 177592
## + Num_Credit_Inquiries 1 177592
## + Total_EMI_per_month  1 177592
##
## Step: AIC=177559.7
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##      Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
##      Num_of_Loan
##
##              Df    AIC
## + Occupation      14 177530
## + StudentLoan      1 177546
## + PersonalLoan     1 177547
## + Age              1 177553
## + Annual_Income    1 177556
## + Credit_Utilization_Ratio 1 177559
## + HomeEquityLoan   1 177560
## + DebtConsolidationLoan 1 177560
## <none>             177560
## + Monthly_Inhand_Salary 1 177560
## + Amount_invested_monthly 1 177561
## + Num_of_Delayed_Payment 1 177561
## + AutoLoan         1 177562
## + Num_Credit_Inquiries 1 177562
## + Total_EMI_per_month 1 177562
##
## Step: AIC=177530.3
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##      Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
##      Num_of_Loan + Occupation
##
##              Df    AIC
## + StudentLoan      1 177517
## + PersonalLoan     1 177518
## + Age              1 177524
## + Annual_Income    1 177526
## + DebtConsolidationLoan 1 177530
## + Credit_Utilization_Ratio 1 177530
## <none>             177530
## + HomeEquityLoan   1 177530
## + Monthly_Inhand_Salary 1 177531

```

```

## + Amount_invested_monthly 1 177531
## + Num_of_Delayed_Payment 1 177532
## + AutoLoan 1 177532
## + Num_Credit_Inquiries 1 177532
## + Total_EMI_per_month 1 177532
##
## Step: AIC=177516.7
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
## Num_of_Loan + Occupation + StudentLoan
##
##
## Df AIC
## + PersonalLoan 1 177508
## + Age 1 177510
## + Annual_Income 1 177513
## + Credit_Utilization_Ratio 1 177516
## <none> 177517
## + Monthly_Inhand_Salary 1 177517
## + DebtConsolidationLoan 1 177518
## + Amount_invested_monthly 1 177518
## + HomeEquityLoan 1 177518
## + AutoLoan 1 177519
## + Total_EMI_per_month 1 177519
## + Num_Credit_Inquiries 1 177519
## + Num_of_Delayed_Payment 1 177519
##
## Step: AIC=177507.7
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
## Num_of_Loan + Occupation + StudentLoan + PersonalLoan
##
##
## Df AIC
## + Age 1 177501
## + Annual_Income 1 177504
## + Credit_Utilization_Ratio 1 177507
## <none> 177508
## + HomeEquityLoan 1 177508
## + Monthly_Inhand_Salary 1 177508
## + DebtConsolidationLoan 1 177509
## + Amount_invested_monthly 1 177509
## + Num_of_Delayed_Payment 1 177509
## + AutoLoan 1 177510
## + Num_Credit_Inquiries 1 177510
## + Total_EMI_per_month 1 177510
##
## Step: AIC=177500.6
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
## Num_of_Loan + Occupation + StudentLoan + PersonalLoan + Age
##
##
## Df AIC
## + Annual_Income 1 177497
## <none> 177501

```

```

## + DebtConsolidationLoan      1 177501
## + Monthly_Inhand_Salary      1 177501
## + Credit_Utilization_Ratio   1 177501
## + HomeEquityLoan             1 177501
## + AutoLoan                   1 177503
## + Num_Credit_Inquiries       1 177503
## + Total_EMI_per_month        1 177503
## + Amount_invested_monthly    1 177503
## + Num_of_Delayed_Payment     1 177503
##
## Step: AIC=177497
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##   Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
##   Num_of_Loan + Occupation + StudentLoan + PersonalLoan + Age +
##   Annual_Income
##
##              Df    AIC
## + Credit_Utilization_Ratio  1 177497
## + DebtConsolidationLoan     1 177497
## <none>                      177497
## + HomeEquityLoan           1 177497
## + Monthly_Inhand_Salary    1 177498
## + Amount_invested_monthly  1 177498
## + AutoLoan                 1 177499
## + Num_Credit_Inquiries     1 177499
## + Total_EMI_per_month      1 177499
## + Num_of_Delayed_Payment   1 177499
##
## Step: AIC=177496.6
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##   Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
##   Num_of_Loan + Occupation + StudentLoan + PersonalLoan + Age +
##   Annual_Income + Credit_Utilization_Ratio
##
##              Df    AIC
## + DebtConsolidationLoan     1 177496
## <none>                      177497
## + Monthly_Inhand_Salary     1 177497
## + HomeEquityLoan            1 177497
## + Amount_invested_monthly   1 177498
## + Num_of_Delayed_Payment    1 177498
## + Num_Credit_Inquiries      1 177499
## + Total_EMI_per_month       1 177499
## + AutoLoan                  1 177499
##
## Step: AIC=177496.5
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##   Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
##   Num_of_Loan + Occupation + StudentLoan + PersonalLoan + Age +
##   Annual_Income + Credit_Utilization_Ratio + DebtConsolidationLoan
##
##              Df    AIC
## + HomeEquityLoan            1 177496

```

```

## <none> 177496
## + Monthly_Inhand_Salary 1 177497
## + Amount_invested_monthly 1 177498
## + Num_of_Delayed_Payment 1 177498
## + Num_Credit_Inquiries 1 177499
## + AutoLoan 1 177499
## + Total_EMI_per_month 1 177499
##
## Step: AIC=177496.1
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
## Num_of_Loan + Occupation + StudentLoan + PersonalLoan + Age +
## Annual_Income + Credit_Utilization_Ratio + DebtConsolidationLoan +
## HomeEquityLoan
##
## Df AIC
## <none> 177496
## + Monthly_Inhand_Salary 1 177496
## + Amount_invested_monthly 1 177498
## + AutoLoan 1 177498
## + Total_EMI_per_month 1 177498
## + Num_Credit_Inquiries 1 177498
## + Num_of_Delayed_Payment 1 177500

```

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Outstanding_Debt + Credit_History_Age + Month + Monthly_Balance +
##   Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
##   Num_of_Loan + Occupation + StudentLoan + PersonalLoan + Age +
##   Annual_Income + Credit_Utilization_Ratio + DebtConsolidationLoan +
##   HomeEquityLoan, data = train)
##
## Coefficients:
##           Credit_MixBad           Credit_MixGood           Credit_MixStandard
##           2.747994e+00           2.423471e-01           2.956207e+00
##           Interest_Rate       Changed_Credit_Limit       Outstanding_Debt
##           -4.312597e-02           3.271623e-02           -1.284539e-04
##           Credit_History_Age           Month           Monthly_Balance
##           1.140584e-03           -3.514348e-02           3.507402e-04
##           Num_Bank_Accounts       Num_Credit_Card       Delay_from_due_date
##           -4.039399e-02           4.711195e-02           -4.400030e-03
##           Num_of_Loan       OccupationArchitect       OccupationDeveloper
##           -2.704934e-02           6.054838e-02           4.687232e-02
##           OccupationDoctor       OccupationEngineer       OccupationEntrepreneur
##           8.340975e-02           -2.290688e-02           5.741049e-02
##           OccupationJournalist       OccupationLawyer       OccupationManager
##           -2.948205e-02           7.197185e-02           6.870075e-02
##           OccupationMechanic       OccupationMedia_Manager       OccupationMusician
##           1.215488e-01           7.851110e-02           4.664138e-02
##           OccupationScientist       OccupationTeacher       OccupationWriter
##           6.772045e-03           -2.421665e-02           1.265994e-01
##           StudentLoan       PersonalLoan           Age
##           -3.213453e-02           3.984340e-02           1.885039e-03
##           Annual_Income       Credit_Utilization_Ratio       DebtConsolidationLoan
##           1.093724e-08           2.007228e-03           1.808261e-02
##           HomeEquityLoan
##           1.684910e-02
##
## Intercepts:
##           Good|Poor Poor|Standard
##           0.1086714       1.7900883
##
## Residual Deviance: 177424.08
## AIC: 177496.08
```

월별 순서형 로지스틱 다중회귀분석

```
library(tidyverse)
```

```
## -- Attaching packages ----- tidyverse 1.3.1 --
```

```
## v ggplot2 3.3.5    v purrr   0.3.4
## v tibble  3.1.7    v dplyr   1.0.8
## v tidyr   1.2.0    v stringr 1.4.0
## v readr   2.1.2    v forcats 0.5.1
```

```
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag() masks stats::lag()
## x dplyr::recode() masks car::recode()
## x dplyr::select() masks MASS::select()
## x purrr::some() masks car::some()
```

```
train1 <- train %>% filter(train$Month == 1) %>% select(-Month)
train2 <- train %>% filter(train$Month == 2) %>% select(-Month)
train3 <- train %>% filter(train$Month == 3) %>% select(-Month)
train4 <- train %>% filter(train$Month == 4) %>% select(-Month)
train5 <- train %>% filter(train$Month == 5) %>% select(-Month)
train6 <- train %>% filter(train$Month == 6) %>% select(-Month)
train7 <- train %>% filter(train$Month == 7) %>% select(-Month)
train8 <- train %>% filter(train$Month == 8) %>% select(-Month)
```

1월

```
step(polr(Credit_Score ~1,train1), scope = list(lower~1, upper = ~Age+Occupation+Annual_Income+
Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_du
e_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_
Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_monthly+Mo
nthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), directio
n="both")
```

```

## Start: AIC=24410.9
## Credit_Score ~ 1
##
##
##      Df    AIC
## + Credit_Mix      3 21429
## + Changed_Credit_Limit      1 23862
## + Num_Bank_Accounts      1 24189
## + Outstanding_Debt      1 24359
## + Monthly_Inhand_Salary      1 24391
## + Num_Credit_Card      1 24394
## + Amount_invested_monthly      1 24402
## + Monthly_Balance      1 24403
## + StudentLoan      1 24406
## + Credit_History_Age      1 24406
## + Age      1 24407
## + Num_of_Delayed_Payment      1 24407
## + Num_of_Loan      1 24408
## + Interest_Rate      1 24409
## + Occupation      14 24411
## <none>      24411
## + AutoLoan      1 24412
## + DebtConsolidationLoan      1 24412
## + Num_Credit_Inquiries      1 24412
## + Annual_Income      1 24412
## + Delay_from_due_date      1 24412
## + Total_EMI_per_month      1 24413
## + PersonalLoan      1 24413
## + HomeEquityLoan      1 24413
## + Credit_Utilization_Ratio      1 24413
##
## Step: AIC=21428.69
## Credit_Score ~ Credit_Mix
##
##
##      Df    AIC
## + Interest_Rate      1 21171
## + Changed_Credit_Limit      1 21259
## + Outstanding_Debt      1 21312
## + Num_of_Loan      1 21358
## + Credit_History_Age      1 21371
## + Delay_from_due_date      1 21392
## + Monthly_Balance      1 21407
## + StudentLoan      1 21408
## + Monthly_Inhand_Salary      1 21410
## + DebtConsolidationLoan      1 21420
## + AutoLoan      1 21421
## + Age      1 21421
## + Amount_invested_monthly      1 21424
## + HomeEquityLoan      1 21424
## + Credit_Utilization_Ratio      1 21426
## + Annual_Income      1 21427
## + Num_of_Delayed_Payment      1 21428
## + PersonalLoan      1 21429
## <none>      21429
## + Total_EMI_per_month      1 21430
## + Num_Bank_Accounts      1 21430

```



```

## + Num_Credit_Inquiries      1 21431
## + Num_Credit_Card           1 21431
## + Occupation                14 21434
## - Credit_Mix                3 24411
##
## Step:  AIC=21170.77
## Credit_Score ~ Credit_Mix + Interest_Rate
##
##                                Df    AIC
## + Changed_Credit_Limit       1 20913
## + Outstanding_Debt           1 21148
## + Num_Bank_Accounts          1 21149
## + Num_Credit_Card            1 21150
## + Num_of_Loan                1 21160
## + StudentLoan                1 21164
## + Monthly_Balance            1 21168
## + Credit_History_Age         1 21168
## + Monthly_Inhand_Salary      1 21169
## + Annual_Income              1 21169
## + Credit_Utilization_Ratio   1 21170
## + DebtConsolidationLoan      1 21170
## <none>                       21171
## + AutoLoan                   1 21171
## + Age                        1 21171
## + Num_of_Delayed_Payment     1 21171
## + Amount_invested_monthly    1 21172
## + Total_EMI_per_month        1 21172
## + Delay_from_due_date        1 21172
## + HomeEquityLoan             1 21172
## + PersonalLoan               1 21173
## + Num_Credit_Inquiries       1 21173
## + Occupation                 14 21178
## - Interest_Rate              1 21429
## - Credit_Mix                 3 24409
##
## Step:  AIC=20912.58
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit
##
##                                Df    AIC
## + Outstanding_Debt           1 20775
## + Num_of_Loan                1 20871
## + Credit_History_Age         1 20873
## + StudentLoan                1 20898
## + Num_Credit_Card            1 20899
## + Num_Bank_Accounts          1 20901
## + Monthly_Balance            1 20904
## + Monthly_Inhand_Salary      1 20907
## + DebtConsolidationLoan      1 20908
## + AutoLoan                   1 20909
## + Age                        1 20910
## + Credit_Utilization_Ratio   1 20911
## + Annual_Income              1 20911
## + HomeEquityLoan             1 20911
## + Delay_from_due_date        1 20912
## + Amount_invested_monthly    1 20912
## + Num_of_Delayed_Payment     1 20912

```

```

## <none>                20913
## + Total_EMI_per_month    1 20913
## + PersonalLoan           1 20914
## + Num_Credit_Inquiries   1 20914
## + Occupation             14 20919
## - Changed_Credit_Limit   1 21171
## - Interest_Rate          1 21259
## - Credit_Mix             3 23834
##
## Step: AIC=20774.85
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Outstanding_Debt
##
##               Df    AIC
## + Num_Credit_Card      1 20743
## + Num_Bank_Accounts     1 20749
## + Num_of_Loan           1 20767
## + StudentLoan           1 20769
## + Credit_History_Age    1 20769
## + Monthly_Balance       1 20773
## + Annual_Income         1 20773
## + Monthly_Inhand_Salary 1 20773
## + Credit_Utilization_Ratio 1 20774
## + Num_of_Delayed_Payment 1 20774
## + Age                   1 20775
## + DebtConsolidationLoan 1 20775
## <none>                 20775
## + Total_EMI_per_month    1 20776
## + AutoLoan              1 20776
## + Amount_invested_monthly 1 20776
## + HomeEquityLoan        1 20777
## + PersonalLoan          1 20777
## + Num_Credit_Inquiries   1 20777
## + Delay_from_due_date    1 20777
## + Occupation            14 20782
## - Outstanding_Debt       1 20913
## - Interest_Rate          1 20946
## - Changed_Credit_Limit   1 21148
## - Credit_Mix            3 23456
##
## Step: AIC=20742.77
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Outstanding_Debt + Num_Credit_Card
##
##               Df    AIC
## + Num_Bank_Accounts     1 20724
## + Num_of_Loan           1 20733
## + Credit_History_Age    1 20734
## + StudentLoan           1 20736
## + Monthly_Balance       1 20740
## + Monthly_Inhand_Salary 1 20740
## + Annual_Income         1 20740
## + Credit_Utilization_Ratio 1 20742
## + Age                   1 20742
## + DebtConsolidationLoan 1 20742
## + Num_of_Delayed_Payment 1 20743

```

```

## <none>                20743
## + AutoLoan            1 20743
## + Total_EMI_per_month 1 20743
## + Amount_invested_monthly 1 20744
## + Delay_from_due_date 1 20744
## + HomeEquityLoan      1 20744
## + PersonalLoan        1 20745
## + Num_Credit_Inquiries 1 20745
## + Occupation          14 20750
## - Num_Credit_Card     1 20775
## - Outstanding_Debt    1 20899
## - Interest_Rate       1 20939
## - Changed_Credit_Limit 1 21118
## - Credit_Mix          3 23396
##
## Step: AIC=20724.24
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts
##
##              Df    AIC
## + Num_of_Loan      1 20711
## + Credit_History_Age 1 20713
## + StudentLoan      1 20717
## + Monthly_Balance   1 20719
## + Monthly_Inhand_Salary 1 20720
## + Annual_Income     1 20722
## + Age               1 20723
## + Credit_Utilization_Ratio 1 20723
## + DebtConsolidationLoan 1 20723
## + Delay_from_due_date 1 20723
## + Num_of_Delayed_Payment 1 20724
## <none>                20724
## + AutoLoan          1 20724
## + Amount_invested_monthly 1 20725
## + Total_EMI_per_month 1 20725
## + HomeEquityLoan     1 20726
## + Num_Credit_Inquiries 1 20726
## + PersonalLoan       1 20726
## + Occupation         14 20731
## - Num_Bank_Accounts  1 20743
## - Num_Credit_Card    1 20749
## - Outstanding_Debt   1 20892
## - Interest_Rate      1 20939
## - Changed_Credit_Limit 1 21095
## - Credit_Mix         3 23080
##
## Step: AIC=20711.44
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts +
##      Num_of_Loan
##
##              Df    AIC
## + Credit_History_Age 1 20705
## + Monthly_Inhand_Salary 1 20708
## + Annual_Income     1 20709
## + StudentLoan       1 20710

```

```

## + Monthly_Balance          1 20711
## + Age                      1 20711
## + Num_of_Delayed_Payment   1 20711
## + Credit_Utilization_Ratio 1 20711
## + Delay_from_due_date      1 20711
## + PersonalLoan             1 20711
## <none>                     20711
## + Total_EMI_per_month      1 20712
## + Amount_invested_monthly  1 20712
## + DebtConsolidationLoan    1 20713
## + HomeEquityLoan           1 20713
## + Num_Credit_Inquiries     1 20713
## + AutoLoan                 1 20713
## + Occupation               14 20717
## - Num_of_Loan              1 20724
## - Num_Bank_Accounts        1 20733
## - Num_Credit_Card          1 20738
## - Outstanding_Debt         1 20838
## - Interest_Rate            1 20905
## - Changed_Credit_Limit     1 21090
## - Credit_Mix               3 23069
##
## Step:  AIC=20704.94
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts +
##      Num_of_Loan + Credit_History_Age
##
##              Df    AIC
## + Monthly_Inhand_Salary    1 20702
## + Annual_Income            1 20702
## + StudentLoan              1 20703
## + Monthly_Balance          1 20704
## + Num_of_Delayed_Payment   1 20705
## + Credit_Utilization_Ratio 1 20705
## <none>                     20705
## + PersonalLoan            1 20705
## + Age                     1 20705
## + Delay_from_due_date     1 20705
## + Total_EMI_per_month     1 20705
## + Amount_invested_monthly 1 20706
## + DebtConsolidationLoan    1 20707
## + HomeEquityLoan          1 20707
## + Num_Credit_Inquiries     1 20707
## + AutoLoan                1 20707
## + Occupation              14 20711
## - Credit_History_Age      1 20711
## - Num_of_Loan             1 20713
## - Num_Bank_Accounts       1 20729
## - Num_Credit_Card         1 20733
## - Outstanding_Debt        1 20810
## - Interest_Rate           1 20883
## - Changed_Credit_Limit    1 21092
## - Credit_Mix              3 23071
##
## Step:  AIC=20702.23
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +

```

```

##      Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts +
##      Num_of_Loan + Credit_History_Age + Monthly_Inhand_Salary
##
##                                     Df    AIC
## + Annual_Income                    1 20700
## + StudentLoan                      1 20700
## + Num_of_Delayed_Payment           1 20702
## + PersonalLoan                     1 20702
## <none>                             20702
## + Age                             1 20702
## + Delay_from_due_date              1 20703
## + Total_EMI_per_month              1 20703
## + Credit_Utilization_Ratio         1 20703
## + DebtConsolidationLoan            1 20704
## + HomeEquityLoan                   1 20704
## + Num_Credit_Inquiries             1 20704
## + AutoLoan                         1 20704
## + Monthly_Balance                  1 20704
## + Amount_invested_monthly          1 20704
## - Monthly_Inhand_Salary            1 20705
## + Occupation                       14 20708
## - Credit_History_Age               1 20708
## - Num_of_Loan                     1 20710
## - Num_Bank_Accounts                1 20727
## - Num_Credit_Card                  1 20731
## - Outstanding_Debt                 1 20805
## - Interest_Rate                    1 20875
## - Changed_Credit_Limit             1 21089
## - Credit_Mix                       3 23067
##
## Step:  AIC=20699.76
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts +
##      Num_of_Loan + Credit_History_Age + Monthly_Inhand_Salary +
##      Annual_Income
##
##                                     Df    AIC
## + StudentLoan                      1 20698
## + Num_of_Delayed_Payment           1 20700
## <none>                             20700
## + PersonalLoan                     1 20700
## + Age                             1 20700
## + Delay_from_due_date              1 20700
## + Total_EMI_per_month              1 20700
## + Credit_Utilization_Ratio         1 20700
## + DebtConsolidationLoan            1 20701
## + HomeEquityLoan                   1 20702
## + Num_Credit_Inquiries             1 20702
## + AutoLoan                         1 20702
## + Monthly_Balance                  1 20702
## + Amount_invested_monthly          1 20702
## - Annual_Income                    1 20702
## - Monthly_Inhand_Salary            1 20702
## + Occupation                       14 20705
## - Credit_History_Age               1 20706
## - Num_of_Loan                     1 20707

```

```

## - Num_Bank_Accounts      1 20725
## - Num_Credit_Card        1 20729
## - Outstanding_Debt       1 20803
## - Interest_Rate          1 20873
## - Changed_Credit_Limit   1 21087
## - Credit_Mix             3 23066
##
## Step: AIC=20697.98
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts +
##   Num_of_Loan + Credit_History_Age + Monthly_Inhand_Salary +
##   Annual_Income + StudentLoan
##
##              Df    AIC
## + Num_of_Delayed_Payment  1 20698
## + Age                     1 20698
## <none>                    20698
## + Delay_from_due_date     1 20698
## + Total_EMI_per_month     1 20698
## + PersonalLoan            1 20699
## + Credit_Utilization_Ratio 1 20699
## + DebtConsolidationLoan   1 20699
## + AutoLoan                1 20700
## - StudentLoan             1 20700
## + Num_Credit_Inquiries    1 20700
## + HomeEquityLoan          1 20700
## + Amount_invested_monthly 1 20700
## + Monthly_Balance         1 20700
## - Annual_Income           1 20700
## - Monthly_Inhand_Salary   1 20701
## - Num_of_Loan             1 20702
## + Occupation              14 20704
## - Credit_History_Age      1 20704
## - Num_Bank_Accounts       1 20723
## - Num_Credit_Card         1 20727
## - Outstanding_Debt        1 20801
## - Interest_Rate           1 20871
## - Changed_Credit_Limit    1 21086
## - Credit_Mix              3 23065
##
## Step: AIC=20697.78
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts +
##   Num_of_Loan + Credit_History_Age + Monthly_Inhand_Salary +
##   Annual_Income + StudentLoan + Num_of_Delayed_Payment
##
##              Df    AIC
## + Age                     1 20698
## <none>                    20698
## + Delay_from_due_date     1 20698
## - Num_of_Delayed_Payment   1 20698
## + Total_EMI_per_month     1 20698
## + PersonalLoan            1 20698
## + Credit_Utilization_Ratio 1 20699
## + DebtConsolidationLoan   1 20699
## - StudentLoan             1 20700

```

```

## + AutoLoan 1 20700
## + Num_Credit_Inquiries 1 20700
## + HomeEquityLoan 1 20700
## + Monthly_Balance 1 20700
## + Amount_invested_monthly 1 20700
## - Monthly_Inhand_Salary 1 20700
## - Annual_Income 1 20700
## - Num_of_Loan 1 20702
## + Occupation 14 20704
## - Credit_History_Age 1 20704
## - Num_Bank_Accounts 1 20723
## - Num_Credit_Card 1 20727
## - Outstanding_Debt 1 20801
## - Interest_Rate 1 20870
## - Changed_Credit_Limit 1 21086
## - Credit_Mix 3 23060
##
## Step: AIC=20697.78
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts +
## Num_of_Loan + Credit_History_Age + Monthly_Inhand_Salary +
## Annual_Income + StudentLoan + Num_of_Delayed_Payment + Age
##
## Df AIC
## <none> 20698
## - Age 1 20698
## - Num_of_Delayed_Payment 1 20698
## + Delay_from_due_date 1 20698
## + Total_EMI_per_month 1 20698
## + PersonalLoan 1 20698
## + Credit_Utilization_Ratio 1 20699
## + DebtConsolidationLoan 1 20699
## - StudentLoan 1 20700
## + AutoLoan 1 20700
## + Num_Credit_Inquiries 1 20700
## + Amount_invested_monthly 1 20700
## + Monthly_Balance 1 20700
## + HomeEquityLoan 1 20700
## - Annual_Income 1 20700
## - Monthly_Inhand_Salary 1 20700
## - Num_of_Loan 1 20701
## - Credit_History_Age 1 20703
## + Occupation 14 20704
## - Num_Bank_Accounts 1 20723
## - Num_Credit_Card 1 20727
## - Outstanding_Debt 1 20801
## - Interest_Rate 1 20867
## - Changed_Credit_Limit 1 21087
## - Credit_Mix 3 23062

```

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##     Outstanding_Debt + Num_Credit_Card + Num_Bank_Accounts +
##     Num_of_Loan + Credit_History_Age + Monthly_Inhand_Salary +
##     Annual_Income + StudentLoan + Num_of_Delayed_Payment + Age,
##     data = train1)
##
## Coefficients:
##          Credit_MixBad          Credit_MixGood          Credit_MixStandard
##          1.378756e+01          1.192488e+01          1.454090e+01
##          Interest_Rate    Changed_Credit_Limit    Outstanding_Debt
##          -4.217604e-02          6.263709e-02          -2.721598e-04
##          Num_Credit_Card    Num_Bank_Accounts    Num_of_Loan
##          6.139188e-02          5.284723e-02          -2.671578e-02
##          Credit_History_Age    Monthly_Inhand_Salary    Annual_Income
##          7.650380e-04          1.399484e-05          2.699245e-08
##          StudentLoan    Num_of_Delayed_Payment          Age
##          -5.807383e-02          1.386802e-04          2.609829e-03
##
## Intercepts:
##      Good|Poor    Poor|Standard
##      11.98432     13.81592
##
## Residual Deviance: 20663.78
## AIC: 20697.78
```

2월

```
step(polr(Credit_Score ~1,train2), scope = list(lower~1, upper = ~Age+Occupation+Annual_Income+
Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_du
e_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_
Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_monthly+Mo
nthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), directio
n="both")
```

```
## Start:  AIC=24455.7
## Credit_Score ~ 1
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train2): design
## appears to be rank-deficient, so dropping some coefs
```


##		Df	AIC
##	+ Credit_Mix	2	20153
##	+ Changed_Credit_Limit	1	23868
##	+ Num_Bank_Accounts	1	24199
##	+ Outstanding_Debt	1	24420
##	+ Monthly_Inhand_Salary	1	24422
##	+ Num_Credit_Card	1	24429
##	+ Amount_invested_monthly	1	24435
##	+ Monthly_Balance	1	24438
##	+ Interest_Rate	1	24441
##	+ Credit_History_Age	1	24445
##	+ Age	1	24445
##	+ Delay_from_due_date	1	24451
##	+ Total_EMI_per_month	1	24452
##	+ Num_Credit_Inquiries	1	24453
##	<none>		24456
##	+ StudentLoan	1	24456
##	+ Num_of_Delayed_Payment	1	24457
##	+ Annual_Income	1	24457
##	+ DebtConsolidationLoan	1	24457
##	+ Num_of_Loan	1	24457
##	+ Credit_Utilization_Ratio	1	24458
##	+ PersonalLoan	1	24458
##	+ HomeEquityLoan	1	24458
##	+ AutoLoan	1	24458
##	+ Occupation	14	24470

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train2): design
## appears to be rank-deficient, so dropping some coefs
```

```
##
## Step: AIC=20152.52
## Credit_Score ~ Credit_Mix
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Age, data = train2):
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Occupation, data =
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Annual_Income, data =
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Monthly_Inhand_Salary, :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts, :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Credit_Card, data =  
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =  
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_of_Loan, data =  
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Delay_from_due_date, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_of_Delayed_Payment, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Credit_Inquiries, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Outstanding_Debt, : design  
## appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix +  
## Credit_Utilization_Ratio, : design appears to be rank-deficient, so dropping  
## some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Credit_History_Age, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Total_EMI_per_month, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Amount_invested_monthly, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Monthly_Balance, data =  
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + AutoLoan, data = train2):  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + PersonalLoan, data =  
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + HomeEquityLoan, data =  
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + StudentLoan, data =  
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + DebtConsolidationLoan, :  
## design appears to be rank-deficient, so dropping some coefs
```

##	Df	AIC
## + Interest_Rate	1	19508
## + Credit_History_Age	1	19974
## + Outstanding_Debt	1	20006
## + Num_of_Loan	1	20045
## + Num_Bank_Accounts	1	20062
## + Delay_from_due_date	1	20074
## + Changed_Credit_Limit	1	20080
## + Monthly_Balance	1	20102
## + Monthly_Inhand_Salary	1	20104
## + Age	1	20130
## + StudentLoan	1	20138
## + AutoLoan	1	20142
## + Amount_invested_monthly	1	20143
## + HomeEquityLoan	1	20147
## + Credit_Utilization_Ratio	1	20148
## + Total_EMI_per_month	1	20148
## + PersonalLoan	1	20148
## + Num_Credit_Inquiries	1	20149
## + DebtConsolidationLoan	1	20150
## + Num_Credit_Card	1	20151
## + Annual_Income	1	20152
## <none>		20153
## + Num_of_Delayed_Payment	1	20154
## + Occupation	14	20170
## - Credit_Mix	2	24456

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =  
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
##  
## Step: AIC=19508.03  
## Credit_Score ~ Credit_Mix + Interest_Rate
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train2): design  
## appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Age, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Occupation, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Annual_Income, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Monthly_Inhand_Salary, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Credit_Card, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_of_Loan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Delay_from_due_date, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_of_Delayed_Payment, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Credit_Inquiries, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Outstanding_Debt, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Credit_Utilization_Ratio, : design appears to be rank-deficient, so dropping  
## some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Credit_History_Age, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Total_EMI_per_month, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Amount_invested_monthly, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Monthly_Balance, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## AutoLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## PersonalLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## HomeEquityLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## StudentLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## DebtConsolidationLoan, : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Changed_Credit_Limit		1	19387
## + Credit_History_Age		1	19437
## + Num_Bank_Accounts		1	19469
## + Outstanding_Debt		1	19470
## + Num_of_Loan		1	19471
## + Monthly_Balance		1	19484
## + Monthly_Inhand_Salary		1	19485
## + Delay_from_due_date		1	19488
## + Age		1	19499
## + Num_Credit_Inquiries		1	19502
## + StudentLoan		1	19502
## + Total_EMI_per_month		1	19504
## + Num_Credit_Card		1	19505
## + Credit_Utilization_Ratio		1	19505
## + Amount_invested_monthly		1	19506
## + AutoLoan		1	19506
## + Annual_Income		1	19507
## <none>			19508
## + PersonalLoan		1	19509
## + HomeEquityLoan		1	19509
## + DebtConsolidationLoan		1	19509
## + Num_of_Delayed_Payment		1	19509
## + Occupation		14	19524
## - Interest_Rate		1	20153
## - Credit_Mix		2	24441

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19387.31
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit, :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =
## train2): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```


##		Df	AIC
## + Credit_History_Age		1	19258
## + Outstanding_Debt		1	19259
## + Num_of_Loan		1	19322
## + Num_Bank_Accounts		1	19344
## + Monthly_Balance		1	19359
## + Monthly_Inhand_Salary		1	19361
## + Delay_from_due_date		1	19365
## + Age		1	19375
## + StudentLoan		1	19377
## + Num_Credit_Inquiries		1	19381
## + AutoLoan		1	19383
## + Credit_Utilization_Ratio		1	19384
## + Total_EMI_per_month		1	19384
## + Amount_invested_monthly		1	19385
## + Num_Credit_Card		1	19386
## + HomeEquityLoan		1	19386
## + PersonalLoan		1	19387
## + Annual_Income		1	19387
## + DebtConsolidationLoan		1	19387
## <none>			19387
## + Num_of_Delayed_Payment		1	19389
## + Occupation		14	19403
## - Changed_Credit_Limit		1	19508
## - Interest_Rate		1	20080
## - Credit_Mix		2	23857

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19258.12
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age, : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Outstanding_Debt		1	19185
## + Num_Bank_Accounts		1	19223
## + Num_of_Loan		1	19228
## + Monthly_Inhand_Salary		1	19238
## + Monthly_Balance		1	19239
## + Delay_from_due_date		1	19242
## + Num_Credit_Inquiries		1	19251
## + Age		1	19251
## + Num_Credit_Card		1	19253
## + StudentLoan		1	19253
## + Total_EMI_per_month		1	19255
## + Credit_Utilization_Ratio		1	19256
## + Amount_invested_monthly		1	19257
## + AutoLoan		1	19257
## + Annual_Income		1	19258
## <none>			19258
## + HomeEquityLoan		1	19259
## + PersonalLoan		1	19259
## + Num_of_Delayed_Payment		1	19260
## + DebtConsolidationLoan		1	19260
## + Occupation		14	19274
## - Credit_History_Age		1	19387
## - Changed_Credit_Limit		1	19437
## - Interest_Rate		1	19824
## - Credit_Mix		2	23834

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19184.73
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Num_Bank_Accounts		1	19154
## + Monthly_Inhand_Salary		1	19168
## + Monthly_Balance		1	19169
## + Num_of_Loan		1	19170
## + Delay_from_due_date		1	19173
## + Num_Credit_Card		1	19175
## + Num_Credit_Inquiries		1	19178
## + Age		1	19179
## + Total_EMI_per_month		1	19181
## + StudentLoan		1	19182
## + Credit_Utilization_Ratio		1	19183
## + Amount_invested_monthly		1	19184
## <none>			19185
## + Annual_Income		1	19185
## + AutoLoan		1	19185
## + Num_of_Delayed_Payment		1	19186
## + HomeEquityLoan		1	19187
## + PersonalLoan		1	19187
## + DebtConsolidationLoan		1	19187
## + Occupation		14	19200
## - Outstanding_Debt		1	19258
## - Credit_History_Age		1	19259
## - Changed_Credit_Limit		1	19425
## - Interest_Rate		1	19662
## - Credit_Mix		2	23471

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19153.6
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Num_Credit_Card		1	19139
## + Monthly_Inhand_Salary		1	19139
## + Num_of_Loan		1	19140
## + Monthly_Balance		1	19140
## + Num_Credit_Inquiries		1	19147
## + Delay_from_due_date		1	19147
## + Age		1	19148
## + Total_EMI_per_month		1	19150
## + StudentLoan		1	19151
## + Credit_Utilization_Ratio		1	19152
## <none>			19154
## + Amount_invested_monthly		1	19154
## + Annual_Income		1	19154
## + AutoLoan		1	19154
## + Num_of_Delayed_Payment		1	19155
## + HomeEquityLoan		1	19155
## + PersonalLoan		1	19156
## + DebtConsolidationLoan		1	19156
## + Occupation		14	19169
## - Num_Bank_Accounts		1	19185
## - Outstanding_Debt		1	19223
## - Credit_History_Age		1	19224
## - Changed_Credit_Limit		1	19394
## - Interest_Rate		1	19601
## - Credit_Mix		2	23125

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19139.33
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts +
## Num_Credit_Card
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Monthly_Inhand_Salary		1	19124
## + Monthly_Balance		1	19125
## + Num_of_Loan		1	19125
## + Delay_from_due_date		1	19130
## + Num_Credit_Inquiries		1	19132
## + Age		1	19134
## + Total_EMI_per_month		1	19136
## + StudentLoan		1	19137
## + Credit_Utilization_Ratio		1	19138
## + Amount_invested_monthly		1	19139
## <none>			19139
## + Annual_Income		1	19140
## + AutoLoan		1	19140
## + Num_of_Delayed_Payment		1	19141
## + HomeEquityLoan		1	19141
## + PersonalLoan		1	19141
## + DebtConsolidationLoan		1	19141
## - Num_Credit_Card		1	19154
## + Occupation		14	19154
## - Num_Bank_Accounts		1	19175
## - Credit_History_Age		1	19212
## - Outstanding_Debt		1	19214
## - Changed_Credit_Limit		1	19380
## - Interest_Rate		1	19601
## - Credit_Mix		2	23106

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19124.25
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts +
## Num_Credit_Card + Monthly_Inhand_Salary
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Num_of_Loan		1	19111
## + Delay_from_due_date		1	19115
## + Num_Credit_Inquiries		1	19117
## + Age		1	19118
## + Total_EMI_per_month		1	19121
## + StudentLoan		1	19122
## + Monthly_Balance		1	19123
## <none>			19124
## + Amount_invested_monthly		1	19124
## + Credit_Utilization_Ratio		1	19125
## + AutoLoan		1	19125
## + Annual_Income		1	19125
## + Num_of_Delayed_Payment		1	19126
## + HomeEquityLoan		1	19126
## + PersonalLoan		1	19126
## + DebtConsolidationLoan		1	19126
## + Occupation		14	19138
## - Monthly_Inhand_Salary		1	19139
## - Num_Credit_Card		1	19139
## - Num_Bank_Accounts		1	19157
## - Credit_History_Age		1	19194
## - Outstanding_Debt		1	19196
## - Changed_Credit_Limit		1	19365
## - Interest_Rate		1	19576
## - Credit_Mix		2	23098

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19110.81
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts +
## Num_Credit_Card + Monthly_Inhand_Salary + Num_of_Loan
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## +	Delay_from_due_date	1	19102
## +	Num_Credit_Inquiries	1	19104
## +	Age	1	19106
## +	Total_EMI_per_month	1	19108
##	<none>		19111
## +	Amount_invested_monthly	1	19111
## +	StudentLoan	1	19112
## +	Annual_Income	1	19112
## +	PersonalLoan	1	19112
## +	Credit_Utilization_Ratio	1	19112
## +	DebtConsolidationLoan	1	19112
## +	HomeEquityLoan	1	19112
## +	Monthly_Balance	1	19112
## +	Num_of_Delayed_Payment	1	19113
## +	AutoLoan	1	19113
## -	Num_of_Loan	1	19124
## +	Occupation	14	19125
## -	Monthly_Inhand_Salary	1	19125
## -	Num_Credit_Card	1	19127
## -	Num_Bank_Accounts	1	19143
## -	Credit_History_Age	1	19168
## -	Outstanding_Debt	1	19168
## -	Changed_Credit_Limit	1	19357
## -	Interest_Rate	1	19549
## -	Credit_Mix	2	23090

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19101.64
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts +
## Num_Credit_Card + Monthly_Inhand_Salary + Num_of_Loan + Delay_from_due_date
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	+ Num_Credit_Inquiries	1	19094
##	+ Age	1	19097
##	+ Total_EMI_per_month	1	19100
##	<none>		19102
##	+ Amount_invested_monthly	1	19102
##	+ StudentLoan	1	19102
##	+ DebtConsolidationLoan	1	19103
##	+ PersonalLoan	1	19103
##	+ Annual_Income	1	19103
##	+ Credit_Utilization_Ratio	1	19103
##	+ HomeEquityLoan	1	19103
##	+ Monthly_Balance	1	19103
##	+ Num_of_Delayed_Payment	1	19103
##	+ AutoLoan	1	19104
##	- Delay_from_due_date	1	19111
##	- Num_of_Loan	1	19115
##	+ Occupation	14	19116
##	- Monthly_Inhand_Salary	1	19116
##	- Num_Credit_Card	1	19121
##	- Num_Bank_Accounts	1	19128
##	- Outstanding_Debt	1	19157
##	- Credit_History_Age	1	19157
##	- Changed_Credit_Limit	1	19346
##	- Interest_Rate	1	19520
##	- Credit_Mix	2	23091

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19094.19
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts +
## Num_Credit_Card + Monthly_Inhand_Salary + Num_of_Loan + Delay_from_due_date +
## Num_Credit_Inquiries
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```


##		Df	AIC
## + Age		1	19089
## + Total_EMI_per_month		1	19092
## <none>			19094
## + Amount_invested_monthly		1	19095
## + PersonalLoan		1	19095
## + DebtConsolidationLoan		1	19095
## + StudentLoan		1	19095
## + Annual_Income		1	19095
## + Credit_Utilization_Ratio		1	19095
## + HomeEquityLoan		1	19096
## + Monthly_Balance		1	19096
## + Num_of_Delayed_Payment		1	19096
## + AutoLoan		1	19096
## - Num_Credit_Inquiries		1	19102
## - Delay_from_due_date		1	19104
## - Num_of_Loan		1	19107
## + Occupation		14	19108
## - Monthly_Inhand_Salary		1	19109
## - Num_Credit_Card		1	19113
## - Num_Bank_Accounts		1	19120
## - Outstanding_Debt		1	19149
## - Credit_History_Age		1	19150
## - Changed_Credit_Limit		1	19338
## - Interest_Rate		1	19514
## - Credit_Mix		2	23089

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19089.14
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts +
## Num_Credit_Card + Monthly_Inhand_Salary + Num_of_Loan + Delay_from_due_date +
## Num_Credit_Inquiries + Age
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	+ Total_EMI_per_month	1	19087
##	<none>		19089
##	+ Amount_invested_monthly	1	19090
##	+ PersonalLoan	1	19090
##	+ StudentLoan	1	19090
##	+ DebtConsolidationLoan	1	19090
##	+ Annual_Income	1	19090
##	+ Credit_Utilization_Ratio	1	19090
##	+ HomeEquityLoan	1	19091
##	+ Monthly_Balance	1	19091
##	+ Num_of_Delayed_Payment	1	19091
##	+ AutoLoan	1	19091
##	- Age	1	19094
##	- Num_Credit_Inquiries	1	19097
##	- Delay_from_due_date	1	19098
##	- Num_of_Loan	1	19102
##	+ Occupation	14	19103
##	- Monthly_Inhand_Salary	1	19104
##	- Num_Credit_Card	1	19109
##	- Num_Bank_Accounts	1	19115
##	- Credit_History_Age	1	19143
##	- Outstanding_Debt	1	19143
##	- Changed_Credit_Limit	1	19334
##	- Interest_Rate	1	19504
##	- Credit_Mix	2	23090

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=19087.18
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts +
## Num_Credit_Card + Monthly_Inhand_Salary + Num_of_Loan + Delay_from_due_date +
## Num_Credit_Inquiries + Age + Total_EMI_per_month
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	<none>		19087
##	+ Amount_invested_monthly	1	19088
##	+ PersonalLoan	1	19088
##	+ StudentLoan	1	19088
##	+ DebtConsolidationLoan	1	19088
##	+ Annual_Income	1	19088
##	+ Credit_Utilization_Ratio	1	19088
##	+ HomeEquityLoan	1	19089
##	+ Monthly_Balance	1	19089
##	+ Num_of_Delayed_Payment	1	19089
##	- Total_EMI_per_month	1	19089
##	+ AutoLoan	1	19089
##	- Age	1	19092
##	- Num_Credit_Inquiries	1	19094
##	- Delay_from_due_date	1	19096
##	- Num_of_Loan	1	19099
##	+ Occupation	14	19101
##	- Monthly_Inhand_Salary	1	19102
##	- Num_Credit_Card	1	19107
##	- Num_Bank_Accounts	1	19113
##	- Outstanding_Debt	1	19141
##	- Credit_History_Age	1	19142
##	- Changed_Credit_Limit	1	19331
##	- Interest_Rate	1	19502
##	- Credit_Mix	2	23088

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Outstanding_Debt + Num_Bank_Accounts +
##      Num_Credit_Card + Monthly_Inhand_Salary + Num_of_Loan + Delay_from_due_date +
##      Num_Credit_Inquiries + Age + Total_EMI_per_month, data = train2)
##
## Coefficients:
##      Credit_MixBad      Credit_MixGood      Interest_Rate
##      -3.022176e-01      -4.151545e+00      -7.128728e-02
##      Changed_Credit_Limit      Credit_History_Age      Outstanding_Debt
##      5.184058e-02      2.285592e-03      -2.123064e-04
##      Num_Bank_Accounts      Num_Credit_Card      Monthly_Inhand_Salary
##      -5.866191e-02      5.298211e-02      2.806017e-05
##      Num_of_Loan      Delay_from_due_date      Num_Credit_Inquiries
##      -4.306518e-02      -5.755051e-03      3.251703e-04
##      Age      Total_EMI_per_month
##      5.165662e-03      -4.087563e-06
##
## Intercepts:
##      Good|Poor      Poor|Standard
##      -3.878101      -1.878714
##
## Residual Deviance: 19055.18
## AIC: 19087.18
```

3월

```
step(polr(Credit_Score ~1,train3), scope = list(lower~1, upper = ~Age+Occupation+Annual_Income+
Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_du
e_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_
Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_monthly+Mo
nthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), directio
n="both")
```



```

## Start: AIC=24392.11
## Credit_Score ~ 1
##
##           Df    AIC
## + Credit_Mix           3 20011
## + Changed_Credit_Limit 1 23855
## + Num_Bank_Accounts     1 24178
## + Outstanding_Debt      1 24344
## + Monthly_Inhand_Salary 1 24375
## + Num_Credit_Card       1 24375
## + Monthly_Balance       1 24376
## + Credit_History_Age    1 24385
## + Age                   1 24386
## + Interest_Rate         1 24388
## + Amount_invested_monthly 1 24389
## + StudentLoan           1 24389
## + Credit_Utilization_Ratio 1 24391
## + Num_of_Loan           1 24391
## + Num_Credit_Inquiries  1 24391
## + Num_of_Delayed_Payment 1 24392
## <none>                  24392
## + Delay_from_due_date   1 24393
## + AutoLoan              1 24393
## + HomeEquityLoan        1 24394
## + DebtConsolidationLoan 1 24394
## + Annual_Income         1 24394
## + Total_EMI_per_month   1 24394
## + PersonalLoan          1 24394
## + Occupation            14 24406
##
## Step: AIC=20011.03
## Credit_Score ~ Credit_Mix
##
##           Df    AIC
## + Interest_Rate         1 19186
## + Credit_History_Age    1 19820
## + Outstanding_Debt      1 19858
## + Num_Bank_Accounts     1 19862
## + Num_of_Loan           1 19889
## + Delay_from_due_date   1 19896
## + Monthly_Inhand_Salary 1 19922
## + Monthly_Balance       1 19940
## + Changed_Credit_Limit  1 19951
## + Age                   1 19981
## + Amount_invested_monthly 1 19981
## + StudentLoan           1 19988
## + AutoLoan              1 19999
## + HomeEquityLoan        1 20001
## + PersonalLoan          1 20003
## + Num_Credit_Inquiries  1 20007
## + Credit_Utilization_Ratio 1 20007
## + Annual_Income         1 20008
## + Num_Credit_Card       1 20009
## + DebtConsolidationLoan 1 20010
## + Num_of_Delayed_Payment 1 20011

```

```

## <none>                20011
## + Total_EMI_per_month    1 20013
## + Occupation            14 20033
## - Credit_Mix            3 24392
##
## Step:  AIC=19186.25
## Credit_Score ~ Credit_Mix + Interest_Rate
##
##                Df    AIC
## + Changed_Credit_Limit    1 19086
## + Num_Bank_Accounts        1 19092
## + Credit_History_Age       1 19102
## + Num_of_Loan              1 19133
## + Monthly_Inhand_Salary    1 19140
## + Delay_from_due_date      1 19140
## + Outstanding_Debt         1 19141
## + Monthly_Balance          1 19144
## + Amount_invested_monthly   1 19168
## + Age                      1 19172
## + StudentLoan              1 19176
## + AutoLoan                 1 19183
## + Annual_Income            1 19183
## + Num_Credit_Inquiries     1 19184
## + HomeEquityLoan           1 19184
## + Credit_Utilization_Ratio 1 19184
## + PersonalLoan             1 19184
## + Num_Credit_Card           1 19185
## + Num_of_Delayed_Payment    1 19186
## <none>                    19186
## + DebtConsolidationLoan     1 19188
## + Total_EMI_per_month       1 19188
## + Occupation               14 19207
## - Interest_Rate            1 20011
## - Credit_Mix               3 24388
##
## Step:  AIC=19086.01
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit
##
##                Df    AIC
## + Credit_History_Age       1 18946
## + Outstanding_Debt         1 18953
## + Num_Bank_Accounts        1 18987
## + Num_of_Loan              1 19005
## + Monthly_Inhand_Salary    1 19026
## + Monthly_Balance          1 19038
## + Delay_from_due_date      1 19039
## + Amount_invested_monthly   1 19067
## + Age                      1 19069
## + StudentLoan              1 19069
## + AutoLoan                 1 19080
## + HomeEquityLoan           1 19081
## + PersonalLoan             1 19082
## + Annual_Income            1 19083
## + Credit_Utilization_Ratio 1 19084
## + Num_Credit_Inquiries     1 19084
## + Num_Credit_Card           1 19085

```

```

## + Num_of_Delayed_Payment      1 19086
## <none>                        19086
## + DebtConsolidationLoan       1 19087
## + Total_EMI_per_month         1 19088
## + Occupation                  14 19107
## - Changed_Credit_Limit        1 19186
## - Interest_Rate               1 19951
## - Credit_Mix                  3 23832
##
## Step: AIC=18945.97
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age
##
##              Df    AIC
## + Num_Bank_Accounts      1 18856
## + Outstanding_Debt       1 18869
## + Monthly_Inhand_Salary  1 18895
## + Num_of_Loan            1 18904
## + Delay_from_due_date    1 18905
## + Monthly_Balance        1 18910
## + Amount_invested_monthly 1 18931
## + Age                    1 18935
## + StudentLoan            1 18936
## + Annual_Income          1 18942
## + Num_Credit_Card        1 18943
## + Credit_Utilization_Ratio 1 18944
## + AutoLoan               1 18944
## + HomeEquityLoan         1 18944
## + Num_Credit_Inquiries   1 18944
## + PersonalLoan           1 18945
## <none>                   18946
## + Num_of_Delayed_Payment  1 18946
## + DebtConsolidationLoan   1 18948
## + Total_EMI_per_month     1 18948
## + Occupation              14 18967
## - Credit_History_Age      1 19086
## - Changed_Credit_Limit    1 19102
## - Interest_Rate           1 19689
## - Credit_Mix              3 23815
##
## Step: AIC=18856.16
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts
##
##              Df    AIC
## + Outstanding_Debt       1 18784
## + Monthly_Inhand_Salary  1 18811
## + Num_of_Loan            1 18817
## + Monthly_Balance        1 18824
## + Delay_from_due_date    1 18830
## + Amount_invested_monthly 1 18843
## + StudentLoan            1 18846
## + Age                    1 18846
## + Num_Credit_Card        1 18848
## + Annual_Income          1 18853
## + AutoLoan               1 18854

```

```

## + HomeEquityLoan          1 18854
## + Num_Credit_Inquiries    1 18854
## + Credit_Utilization_Ratio 1 18855
## + PersonalLoan            1 18856
## <none>                     18856
## + Num_of_Delayed_Payment   1 18857
## + DebtConsolidationLoan    1 18858
## + Total_EMI_per_month      1 18858
## + Occupation               14 18877
## - Num_Bank_Accounts        1 18946
## - Credit_History_Age       1 18987
## - Changed_Credit_Limit     1 19015
## - Interest_Rate            1 19552
## - Credit_Mix                3 23593
##
## Step: AIC=18783.63
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt
##
##              Df    AIC
## + Monthly_Inhand_Salary    1 18743
## + Monthly_Balance           1 18756
## + Num_of_Loan               1 18762
## + Delay_from_due_date       1 18762
## + Num_Credit_Card           1 18771
## + Amount_invested_monthly    1 18772
## + Age                       1 18774
## + StudentLoan               1 18776
## + Annual_Income             1 18780
## + Num_Credit_Inquiries      1 18782
## + Credit_Utilization_Ratio  1 18783
## + AutoLoan                  1 18784
## <none>                      18784
## + HomeEquityLoan            1 18784
## + Num_of_Delayed_Payment     1 18784
## + PersonalLoan               1 18785
## + DebtConsolidationLoan      1 18786
## + Total_EMI_per_month        1 18786
## + Occupation                 14 18804
## - Outstanding_Debt           1 18856
## - Credit_History_Age         1 18862
## - Num_Bank_Accounts          1 18869
## - Changed_Credit_Limit       1 19001
## - Interest_Rate              1 19396
## - Credit_Mix                 3 23124
##
## Step: AIC=18743.27
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
##      Monthly_Inhand_Salary
##
##              Df    AIC
## + Delay_from_due_date        1 18721
## + Num_of_Loan                1 18722
## + Num_Credit_Card            1 18729
## + Age                        1 18733

```

```

## + StudentLoan          1 18736
## + Annual_Income        1 18741
## + Num_Credit_Inquiries 1 18742
## + Monthly_Balance      1 18742
## + AutoLoan             1 18743
## <none>                 18743
## + HomeEquityLoan       1 18743
## + Num_of_Delayed_Payment 1 18744
## + PersonalLoan         1 18745
## + Credit_Utilization_Ratio 1 18745
## + Amount_invested_monthly 1 18745
## + DebtConsolidationLoan 1 18745
## + Total_EMI_per_month  1 18745
## + Occupation           14 18764
## - Monthly_Inhand_Salary 1 18784
## - Outstanding_Debt     1 18811
## - Credit_History_Age   1 18817
## - Num_Bank_Accounts    1 18822
## - Changed_Credit_Limit 1 18960
## - Interest_Rate        1 19339
## - Credit_Mix           3 23122
##
## Step: AIC=18721.44
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
##      Monthly_Inhand_Salary + Delay_from_due_date
##
##              Df    AIC
## + Num_of_Loan          1 18701
## + Num_Credit_Card      1 18702
## + Age                  1 18712
## + StudentLoan          1 18714
## + Annual_Income        1 18719
## + Num_Credit_Inquiries 1 18720
## + Monthly_Balance      1 18721
## + AutoLoan             1 18721
## <none>                 18721
## + Num_of_Delayed_Payment 1 18722
## + HomeEquityLoan       1 18722
## + Credit_Utilization_Ratio 1 18723
## + PersonalLoan         1 18723
## + Amount_invested_monthly 1 18723
## + DebtConsolidationLoan 1 18723
## + Total_EMI_per_month  1 18723
## + Occupation           14 18742
## - Delay_from_due_date  1 18743
## - Monthly_Inhand_Salary 1 18762
## - Outstanding_Debt     1 18786
## - Num_Bank_Accounts    1 18787
## - Credit_History_Age   1 18793
## - Changed_Credit_Limit 1 18936
## - Interest_Rate        1 19280
## - Credit_Mix           3 23123
##
## Step: AIC=18700.9
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +

```

```

##      Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
##      Monthly_Inhand_Salary + Delay_from_due_date + Num_of_Loan
##
##                                     Df    AIC
## + Num_Credit_Card                  1 18681
## + Age                             1 18692
## + Annual_Income                    1 18698
## + Num_Credit_Inquiries             1 18699
## + StudentLoan                     1 18700
## + DebtConsolidationLoan           1 18700
## <none>                             18701
## + Num_of_Delayed_Payment          1 18701
## + Credit_Utilization_Ratio        1 18702
## + PersonalLoan                    1 18703
## + Amount_invested_monthly         1 18703
## + Monthly_Balance                 1 18703
## + AutoLoan                        1 18703
## + HomeEquityLoan                  1 18703
## + Total_EMI_per_month             1 18703
## + Occupation                      14 18721
## - Num_of_Loan                     1 18721
## - Delay_from_due_date             1 18722
## - Monthly_Inhand_Salary           1 18740
## - Outstanding_Debt                1 18750
## - Credit_History_Age              1 18758
## - Num_Bank_Accounts               1 18765
## - Changed_Credit_Limit            1 18920
## - Interest_Rate                   1 19245
## - Credit_Mix                      3 23116
##
## Step:  AIC=18680.64
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
##      Monthly_Inhand_Salary + Delay_from_due_date + Num_of_Loan +
##      Num_Credit_Card
##
##                                     Df    AIC
## + Age                             1 18672
## + Annual_Income                    1 18678
## + Num_Credit_Inquiries             1 18679
## + StudentLoan                     1 18679
## + DebtConsolidationLoan           1 18680
## <none>                             18681
## + Num_of_Delayed_Payment          1 18681
## + Credit_Utilization_Ratio        1 18682
## + PersonalLoan                    1 18682
## + Amount_invested_monthly         1 18682
## + Monthly_Balance                 1 18683
## + AutoLoan                        1 18683
## + HomeEquityLoan                  1 18683
## + Total_EMI_per_month             1 18683
## + Occupation                      14 18701
## - Num_Credit_Card                 1 18701
## - Num_of_Loan                     1 18702
## - Delay_from_due_date             1 18707
## - Monthly_Inhand_Salary           1 18721

```

```

## - Outstanding_Debt          1 18734
## - Credit_History_Age        1 18740
## - Num_Bank_Accounts         1 18750
## - Changed_Credit_Limit      1 18901
## - Interest_Rate             1 19242
## - Credit_Mix                3 23096
##
## Step: AIC=18671.57
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
##   Monthly_Inhand_Salary + Delay_from_due_date + Num_of_Loan +
##   Num_Credit_Card + Age
##
##              Df    AIC
## + Annual_Income          1 18669
## + Num_Credit_Inquiries    1 18670
## + StudentLoan             1 18670
## + DebtConsolidationLoan   1 18671
## <none>                    18672
## + Num_of_Delayed_Payment  1 18672
## + Credit_Utilization_Ratio 1 18673
## + PersonalLoan            1 18673
## + Amount_invested_monthly  1 18673
## + Monthly_Balance         1 18674
## + AutoLoan                1 18674
## + HomeEquityLoan          1 18674
## + Total_EMI_per_month     1 18674
## - Age                     1 18681
## - Num_of_Loan             1 18692
## + Occupation              14 18692
## - Num_Credit_Card         1 18692
## - Delay_from_due_date     1 18698
## - Monthly_Inhand_Salary   1 18713
## - Outstanding_Debt        1 18725
## - Credit_History_Age      1 18729
## - Num_Bank_Accounts       1 18741
## - Changed_Credit_Limit    1 18893
## - Interest_Rate           1 19226
## - Credit_Mix              3 23097
##
## Step: AIC=18668.77
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
##   Monthly_Inhand_Salary + Delay_from_due_date + Num_of_Loan +
##   Num_Credit_Card + Age + Annual_Income
##
##              Df    AIC
## + Num_Credit_Inquiries    1 18667
## + StudentLoan             1 18667
## + DebtConsolidationLoan   1 18668
## <none>                    18669
## + Num_of_Delayed_Payment  1 18670
## + Credit_Utilization_Ratio 1 18670
## + PersonalLoan            1 18670
## + Amount_invested_monthly  1 18671
## + Monthly_Balance         1 18671

```

```

## + AutoLoan 1 18671
## + HomeEquityLoan 1 18671
## + Total_EMI_per_month 1 18671
## - Annual_Income 1 18672
## - Age 1 18678
## - Num_of_Loan 1 18689
## + Occupation 14 18689
## - Num_Credit_Card 1 18689
## - Delay_from_due_date 1 18695
## - Monthly_Inhand_Salary 1 18709
## - Outstanding_Debt 1 18721
## - Credit_History_Age 1 18726
## - Num_Bank_Accounts 1 18738
## - Changed_Credit_Limit 1 18889
## - Interest_Rate 1 19224
## - Credit_Mix 3 23098
##
## Step: AIC=18666.71
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
## Monthly_Inhand_Salary + Delay_from_due_date + Num_of_Loan +
## Num_Credit_Card + Age + Annual_Income + Num_Credit_Inquiries
##
## Df AIC
## + StudentLoan 1 18665
## + DebtConsolidationLoan 1 18666
## <none> 18667
## + Num_of_Delayed_Payment 1 18667
## + Credit_Utilization_Ratio 1 18668
## + PersonalLoan 1 18668
## + Amount_invested_monthly 1 18669
## + Monthly_Balance 1 18669
## + AutoLoan 1 18669
## + HomeEquityLoan 1 18669
## + Total_EMI_per_month 1 18669
## - Num_Credit_Inquiries 1 18669
## - Annual_Income 1 18670
## - Age 1 18676
## - Num_of_Loan 1 18687
## + Occupation 14 18687
## - Num_Credit_Card 1 18687
## - Delay_from_due_date 1 18693
## - Monthly_Inhand_Salary 1 18707
## - Outstanding_Debt 1 18719
## - Credit_History_Age 1 18724
## - Num_Bank_Accounts 1 18736
## - Changed_Credit_Limit 1 18886
## - Interest_Rate 1 19221
## - Credit_Mix 3 23098
##
## Step: AIC=18665.34
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
## Monthly_Inhand_Salary + Delay_from_due_date + Num_of_Loan +
## Num_Credit_Card + Age + Annual_Income + Num_Credit_Inquiries +
## StudentLoan

```



```

##
##              Df    AIC
## + DebtConsolidationLoan      1 18665
## <none>                        18665
## + Num_of_Delayed_Payment      1 18666
## - StudentLoan                 1 18667
## + Credit_Utilization_Ratio    1 18667
## + Amount_invested_monthly     1 18667
## + AutoLoan                    1 18667
## + PersonalLoan                 1 18667
## - Num_Credit_Inquiries        1 18667
## + Monthly_Balance             1 18667
## + HomeEquityLoan              1 18667
## + Total_EMI_per_month         1 18667
## - Annual_Income               1 18668
## - Age                         1 18675
## - Num_of_Loan                 1 18680
## + Occupation                   14 18686
## - Num_Credit_Card             1 18686
## - Delay_from_due_date         1 18692
## - Monthly_Inhand_Salary       1 18706
## - Outstanding_Debt            1 18718
## - Credit_History_Age          1 18722
## - Num_Bank_Accounts           1 18735
## - Changed_Credit_Limit        1 18885
## - Interest_Rate               1 19219
## - Credit_Mix                  3 23097
##
## Step:  AIC=18665.11
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
##      Monthly_Inhand_Salary + Delay_from_due_date + Num_of_Loan +
##      Num_Credit_Card + Age + Annual_Income + Num_Credit_Inquiries +
##      StudentLoan + DebtConsolidationLoan
##
##              Df    AIC
## <none>                        18665
## - DebtConsolidationLoan      1 18665
## - StudentLoan                 1 18666
## + Num_of_Delayed_Payment      1 18666
## + Credit_Utilization_Ratio    1 18667
## + PersonalLoan                 1 18667
## + Amount_invested_monthly     1 18667
## + Monthly_Balance             1 18667
## + AutoLoan                    1 18667
## - Num_Credit_Inquiries        1 18667
## + HomeEquityLoan              1 18667
## + Total_EMI_per_month         1 18667
## - Annual_Income               1 18668
## - Age                         1 18675
## - Num_of_Loan                 1 18682
## + Occupation                   14 18685
## - Num_Credit_Card             1 18686
## - Delay_from_due_date         1 18692
## - Monthly_Inhand_Salary       1 18706
## - Outstanding_Debt            1 18717

```

```
## - Credit_History_Age      1 18722
## - Num_Bank_Accounts      1 18735
## - Changed_Credit_Limit   1 18885
## - Interest_Rate          1 19219
## - Credit_Mix             3 23097
```

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##       Credit_History_Age + Num_Bank_Accounts + Outstanding_Debt +
##       Monthly_Inhand_Salary + Delay_from_due_date + Num_of_Loan +
##       Num_Credit_Card + Age + Annual_Income + Num_Credit_Inquiries +
##       StudentLoan + DebtConsolidationLoan, data = train3)
##
## Coefficients:
##          Credit_MixBad      Credit_MixGood      Credit_MixStandard
##          3.907207e+00      -6.167447e-01      3.990765e+00
##          Interest_Rate  Changed_Credit_Limit  Credit_History_Age
##          -8.358513e-02      4.976824e-02      2.379071e-03
##          Num_Bank_Accounts  Outstanding_Debt  Monthly_Inhand_Salary
##          -9.591993e-02      -2.124168e-04      4.547321e-05
##          Delay_from_due_date      Num_of_Loan      Num_Credit_Card
##          -9.479098e-03      -5.467472e-02      5.505317e-02
##              Age      Annual_Income  Num_Credit_Inquiries
##          6.778776e-03      2.946065e-08      -2.093250e-04
##          StudentLoan  DebtConsolidationLoan
##          -5.110999e-02      4.762246e-02
##
## Intercepts:
##          Good|Poor  Poor|Standard
##          -0.4245574      1.6185522
##
## Residual Deviance: 18627.11
## AIC: 18665.11
```

4월

```
step(polr(Credit_Score ~1,train4), scope = list(lower~1, upper = ~Age+Occupation+Annual_Income+
Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_du
e_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_
Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_monthly+Mo
nthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), directio
n="both")
```

```

## Start: AIC=25383.61
## Credit_Score ~ 1
##
##           Df    AIC
## + Credit_Mix          3 23355
## + Changed_Credit_Limit 1 25067
## + Num_Bank_Accounts     1 25188
## + Num_Credit_Card       1 25327
## + Amount_invested_monthly 1 25327
## + Interest_Rate         1 25337
## + Monthly_Inhand_Salary  1 25345
## + Credit_History_Age     1 25350
## + Delay_from_due_date    1 25361
## + Age                   1 25365
## + Monthly_Balance        1 25379
## + PersonalLoan           1 25383
## + Num_of_Loan            1 25383
## <none>                  25384
## + HomeEquityLoan         1 25385
## + AutoLoan               1 25385
## + StudentLoan            1 25385
## + DebtConsolidationLoan  1 25385
## + Num_of_Delayed_Payment 1 25386
## + Num_Credit_Inquiries   1 25386
## + Annual_Income          1 25386
## + Outstanding_Debt       1 25386
## + Credit_Utilization_Ratio 1 25386
## + Total_EMI_per_month    1 25386
## + Occupation             14 25400
##
## Step: AIC=23355.04
## Credit_Score ~ Credit_Mix
##
##           Df    AIC
## + Interest_Rate          1 23128
## + Credit_History_Age     1 23296
## + Num_of_Loan            1 23297
## + Monthly_Balance        1 23304
## + Num_Bank_Accounts      1 23310
## + Outstanding_Debt       1 23314
## + Delay_from_due_date    1 23323
## + Changed_Credit_Limit   1 23331
## + Monthly_Inhand_Salary  1 23340
## + StudentLoan            1 23344
## + Credit_Utilization_Ratio 1 23350
## + DebtConsolidationLoan  1 23351
## + AutoLoan               1 23351
## + Age                   1 23353
## + HomeEquityLoan         1 23353
## + PersonalLoan           1 23355
## <none>                  23355
## + Num_Credit_Card       1 23356
## + Num_of_Delayed_Payment 1 23356
## + Total_EMI_per_month    1 23357
## + Annual_Income         1 23357

```

```

## + Amount_invested_monthly 1 23357
## + Num_Credit_Inquiries 1 23358
## + Occupation 14 23374
## - Credit_Mix 3 25384
##
## Step: AIC=23127.67
## Credit_Score ~ Credit_Mix + Interest_Rate
##
## Df AIC
## + Changed_Credit_Limit 1 23089
## + Monthly_Balance 1 23091
## + Num_of_Loan 1 23099
## + Num_Bank_Accounts 1 23100
## + Credit_History_Age 1 23104
## + Delay_from_due_date 1 23117
## + Num_Credit_Card 1 23118
## + Outstanding_Debt 1 23120
## + Monthly_Inhand_Salary 1 23121
## + StudentLoan 1 23121
## + Credit_Utilization_Ratio 1 23124
## + DebtConsolidationLoan 1 23126
## + AutoLoan 1 23127
## + Amount_invested_monthly 1 23127
## <none> 23128
## + Age 1 23128
## + HomeEquityLoan 1 23128
## + Num_of_Delayed_Payment 1 23129
## + PersonalLoan 1 23129
## + Num_Credit_Inquiries 1 23129
## + Total_EMI_per_month 1 23130
## + Annual_Income 1 23130
## + Occupation 14 23145
## - Interest_Rate 1 23355
## - Credit_Mix 3 25337
##
## Step: AIC=23088.77
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit
##
## Df AIC
## + Credit_History_Age 1 23045
## + Num_of_Loan 1 23046
## + Monthly_Balance 1 23049
## + Outstanding_Debt 1 23056
## + Num_Bank_Accounts 1 23060
## + Delay_from_due_date 1 23077
## + Num_Credit_Card 1 23080
## + StudentLoan 1 23080
## + Monthly_Inhand_Salary 1 23081
## + Credit_Utilization_Ratio 1 23085
## + DebtConsolidationLoan 1 23086
## + AutoLoan 1 23087
## + Amount_invested_monthly 1 23089
## + HomeEquityLoan 1 23089
## + Age 1 23089
## <none> 23089
## + PersonalLoan 1 23090

```

```

## + Num_of_Delayed_Payment      1 23090
## + Num_Credit_Inquiries         1 23090
## + Total_EMI_per_month         1 23091
## + Annual_Income                1 23091
## + Occupation                   14 23106
## - Changed_Credit_Limit        1 23128
## - Interest_Rate               1 23331
## - Credit_Mix                  3 25067
##
## Step: AIC=23044.73
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age
##
##              Df    AIC
## + Monthly_Balance      1 23012
## + Num_Bank_Accounts     1 23018
## + Num_of_Loan           1 23020
## + Outstanding_Debt      1 23027
## + Num_Credit_Card       1 23033
## + Delay_from_due_date   1 23035
## + Monthly_Inhand_Salary 1 23039
## + StudentLoan           1 23040
## + Credit_Utilization_Ratio 1 23041
## + Amount_invested_monthly 1 23044
## + DebtConsolidationLoan 1 23044
## + AutoLoan              1 23045
## <none>                  23045
## + HomeEquityLoan        1 23046
## + Num_of_Delayed_Payment 1 23046
## + Age                   1 23046
## + Num_Credit_Inquiries  1 23046
## + PersonalLoan          1 23046
## + Total_EMI_per_month   1 23046
## + Annual_Income         1 23047
## + Occupation            14 23062
## - Credit_History_Age    1 23089
## - Changed_Credit_Limit  1 23104
## - Interest_Rate         1 23245
## - Credit_Mix            3 25064
##
## Step: AIC=23012.29
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Monthly_Balance
##
##              Df    AIC
## + Num_Bank_Accounts     1 22988
## + Outstanding_Debt      1 22997
## + Num_of_Loan           1 23000
## + Num_Credit_Card       1 23000
## + Delay_from_due_date   1 23003
## + StudentLoan           1 23009
## + Monthly_Inhand_Salary 1 23012
## <none>                  23012
## + Amount_invested_monthly 1 23013
## + DebtConsolidationLoan 1 23013
## + AutoLoan              1 23013

```

```

## + Num_of_Delayed_Payment      1 23013
## + Credit_Utilization_Ratio    1 23013
## + Age                          1 23014
## + Num_Credit_Inquiries        1 23014
## + HomeEquityLoan              1 23014
## + Total_EMI_per_month         1 23014
## + PersonalLoan                1 23014
## + Annual_Income               1 23014
## + Occupation                  14 23030
## - Monthly_Balance             1 23045
## - Credit_History_Age          1 23049
## - Changed_Credit_Limit        1 23073
## - Interest_Rate               1 23203
## - Credit_Mix                  3 25065
##
## Step: AIC=22988.14
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Monthly_Balance + Num_Bank_Accounts
##
##                               Df    AIC
## + Num_Credit_Card            1 22972
## + Outstanding_Debt           1 22974
## + Num_of_Loan                1 22976
## + Delay_from_due_date        1 22983
## + StudentLoan                1 22985
## + Monthly_Inhand_Salary      1 22988
## + Amount_invested_monthly    1 22988
## <none>                       22988
## + DebtConsolidationLoan      1 22989
## + AutoLoan                   1 22989
## + Num_of_Delayed_Payment     1 22989
## + Credit_Utilization_Ratio   1 22989
## + Age                        1 22990
## + Total_EMI_per_month        1 22990
## + Num_Credit_Inquiries       1 22990
## + HomeEquityLoan             1 22990
## + Annual_Income              1 22990
## + PersonalLoan               1 22990
## + Occupation                 14 23006
## - Num_Bank_Accounts          1 23012
## - Monthly_Balance           1 23018
## - Credit_History_Age        1 23023
## - Changed_Credit_Limit      1 23050
## - Interest_Rate             1 23166
## - Credit_Mix                3 24943
##
## Step: AIC=22971.64
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Monthly_Balance + Num_Bank_Accounts +
##      Num_Credit_Card
##
##                               Df    AIC
## + Outstanding_Debt           1 22955
## + Num_of_Loan                1 22959
## + Delay_from_due_date        1 22963
## + StudentLoan                1 22968

```

```

## + Monthly_Inhand_Salary      1 22971
## <none>                        22972
## + Amount_invested_monthly    1 22972
## + DebtConsolidationLoan      1 22972
## + AutoLoan                   1 22972
## + Credit_Utilization_Ratio   1 22973
## + Num_of_Delayed_Payment     1 22973
## + Age                        1 22973
## + Num_Credit_Inquiries       1 22973
## + Total_EMI_per_month        1 22973
## + HomeEquityLoan             1 22973
## + PersonalLoan               1 22974
## + Annual_Income              1 22974
## - Num_Credit_Card            1 22988
## + Occupation                 14 22989
## - Num_Bank_Accounts          1 23000
## - Monthly_Balance            1 23003
## - Credit_History_Age         1 23009
## - Changed_Credit_Limit       1 23032
## - Interest_Rate              1 23162
## - Credit_Mix                 3 24939
##
## Step:  AIC=22954.77
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Monthly_Balance + Num_Bank_Accounts +
##      Num_Credit_Card + Outstanding_Debt
##
##                                     Df    AIC
## + Num_of_Loan                      1 22946
## + Delay_from_due_date              1 22948
## + StudentLoan                     1 22952
## + Monthly_Inhand_Salary            1 22954
## + Amount_invested_monthly          1 22955
## <none>                             22955
## + DebtConsolidationLoan            1 22956
## + Credit_Utilization_Ratio         1 22956
## + AutoLoan                         1 22956
## + Num_of_Delayed_Payment           1 22956
## + Age                             1 22956
## + Total_EMI_per_month              1 22956
## + Num_Credit_Inquiries             1 22956
## + HomeEquityLoan                   1 22957
## + PersonalLoan                     1 22957
## + Annual_Income                    1 22957
## - Outstanding_Debt                 1 22972
## + Occupation                       14 22972
## - Num_Credit_Card                  1 22974
## - Credit_History_Age               1 22978
## - Num_Bank_Accounts                1 22982
## - Monthly_Balance                  1 22984
## - Changed_Credit_Limit             1 23031
## - Interest_Rate                    1 23120
## - Credit_Mix                       3 24747
##
## Step:  AIC=22946.4
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +

```

```

##      Credit_History_Age + Monthly_Balance + Num_Bank_Accounts +
##      Num_Credit_Card + Outstanding_Debt + Num_of_Loan
##
##                                     Df    AIC
## + Delay_from_due_date             1 22939
## + Amount_invested_monthly         1 22946
## <none>                             22946
## + StudentLoan                     1 22947
## + PersonalLoan                     1 22947
## + Monthly_Inhand_Salary           1 22947
## + Credit_Utilization_Ratio        1 22947
## + Num_of_Delayed_Payment           1 22948
## + Total_EMI_per_month              1 22948
## + Age                             1 22948
## + Num_Credit_Inquiries             1 22948
## + HomeEquityLoan                   1 22948
## + DebtConsolidationLoan            1 22948
## + AutoLoan                         1 22948
## + Annual_Income                    1 22948
## - Num_of_Loan                      1 22955
## - Outstanding_Debt                 1 22959
## + Occupation                       14 22963
## - Credit_History_Age               1 22963
## - Monthly_Balance                  1 22966
## - Num_Credit_Card                  1 22966
## - Num_Bank_Accounts                1 22973
## - Changed_Credit_Limit              1 23026
## - Interest_Rate                    1 23107
## - Credit_Mix                       3 24737
##
## Step:  AIC=22939.24
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Monthly_Balance + Num_Bank_Accounts +
##      Num_Credit_Card + Outstanding_Debt + Num_of_Loan + Delay_from_due_date
##
##                                     Df    AIC
## + Amount_invested_monthly         1 22939
## <none>                             22939
## + StudentLoan                     1 22940
## + PersonalLoan                     1 22940
## + Monthly_Inhand_Salary           1 22940
## + Credit_Utilization_Ratio        1 22940
## + Num_of_Delayed_Payment           1 22941
## + Total_EMI_per_month              1 22941
## + HomeEquityLoan                   1 22941
## + Age                             1 22941
## + Num_Credit_Inquiries             1 22941
## + DebtConsolidationLoan            1 22941
## + AutoLoan                         1 22941
## + Annual_Income                    1 22941
## - Delay_from_due_date              1 22946
## - Num_of_Loan                      1 22948
## - Outstanding_Debt                 1 22951
## - Credit_History_Age               1 22956
## + Occupation                       14 22956
## - Monthly_Balance                  1 22958

```



```

## - Num_Credit_Card          1 22962
## - Num_Bank_Accounts        1 22962
## - Changed_Credit_Limit     1 23018
## - Interest_Rate            1 23090
## - Credit_Mix                3 24739
##
## Step: AIC=22938.73
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Monthly_Balance + Num_Bank_Accounts +
##      Num_Credit_Card + Outstanding_Debt + Num_of_Loan + Delay_from_due_date +
##      Amount_invested_monthly
##
##                               Df    AIC
## <none>                        22939
## + StudentLoan                 1 22939
## - Amount_invested_monthly     1 22939
## + PersonalLoan                1 22939
## + Credit_Utilization_Ratio    1 22940
## + Num_of_Delayed_Payment      1 22940
## + Monthly_Inhand_Salary       1 22940
## + Total_EMI_per_month         1 22940
## + HomeEquityLoan              1 22940
## + Age                         1 22940
## + Num_Credit_Inquiries        1 22940
## + DebtConsolidationLoan       1 22941
## + AutoLoan                    1 22941
## + Annual_Income               1 22941
## - Delay_from_due_date         1 22946
## - Num_of_Loan                 1 22947
## - Outstanding_Debt            1 22950
## - Credit_History_Age          1 22956
## + Occupation                  14 22956
## - Monthly_Balance             1 22957
## - Num_Credit_Card             1 22961
## - Num_Bank_Accounts           1 22962
## - Changed_Credit_Limit        1 23017
## - Interest_Rate               1 23090
## - Credit_Mix                  3 24712

```

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##       Credit_History_Age + Monthly_Balance + Num_Bank_Accounts +
##       Num_Credit_Card + Outstanding_Debt + Num_of_Loan + Delay_from_due_date +
##       Amount_invested_monthly, data = train4)
##
## Coefficients:
##           Credit_MixBad           Credit_MixGood           Credit_MixStandard
##           2.391692e+00           -1.197029e-01           2.435574e+00
##           Interest_Rate       Changed_Credit_Limit       Credit_History_Age
##           -3.943764e-02           2.754302e-02           1.175048e-03
##           Monthly_Balance       Num_Bank_Accounts       Num_Credit_Card
##           4.394473e-04           -5.116270e-02           5.197222e-02
##           Outstanding_Debt       Num_of_Loan       Delay_from_due_date
##           -9.800148e-05           -3.525188e-02           -4.953472e-03
## Amount_invested_monthly
##           -1.597921e-04
##
## Intercepts:
##           Good|Poor   Poor|Standard
##           -0.2549348   1.3736384
##
## Residual Deviance: 22908.73
## AIC: 22938.73
```

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```
step(polr(Credit_Score ~1,train5), scope = list(lower~1, upper = ~Age+Occupation+Annual_Income+
Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_du
e_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_
Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_monthly+Mo
nthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), directio
n="both")
```

```

## Start: AIC=25334.89
## Credit_Score ~ 1
##
##           Df    AIC
## + Credit_Mix          3 23308
## + Changed_Credit_Limit 1 25028
## + Num_Bank_Accounts    1 25163
## + Amount_invested_monthly 1 25287
## + Monthly_Inhand_Salary 1 25294
## + Num_Credit_Card      1 25295
## + Interest_Rate        1 25296
## + Credit_History_Age   1 25304
## + Delay_from_due_date  1 25316
## + Age                  1 25321
## + Monthly_Balance      1 25328
## + Credit_Utilization_Ratio 1 25330
## + PersonalLoan         1 25331
## + Num_Credit_Inquiries 1 25332
## + HomeEquityLoan       1 25334
## + Num_of_Loan          1 25335
## <none>                25335
## + DebtConsolidationLoan 1 25335
## + StudentLoan          1 25336
## + Total_EMI_per_month  1 25337
## + Outstanding_Debt     1 25337
## + Num_of_Delayed_Payment 1 25337
## + Annual_Income        1 25337
## + AutoLoan             1 25337
## + Occupation           14 25347
##
## Step: AIC=23307.79
## Credit_Score ~ Credit_Mix
##
##           Df    AIC
## + Interest_Rate        1 23077
## + Num_Bank_Accounts    1 23253
## + Credit_History_Age   1 23255
## + Num_of_Loan          1 23258
## + Monthly_Balance      1 23269
## + Outstanding_Debt     1 23272
## + Delay_from_due_date  1 23277
## + Changed_Credit_Limit 1 23284
## + StudentLoan          1 23295
## + Monthly_Inhand_Salary 1 23297
## + AutoLoan             1 23299
## + Age                  1 23303
## <none>                23308
## + DebtConsolidationLoan 1 23308
## + Num_Credit_Inquiries 1 23308
## + HomeEquityLoan       1 23309
## + Total_EMI_per_month  1 23309
## + Num_of_Delayed_Payment 1 23309
## + Amount_invested_monthly 1 23310
## + PersonalLoan         1 23310
## + Credit_Utilization_Ratio 1 23310

```

```

## + Num_Credit_Card          1 23310
## + Annual_Income            1 23311
## + Occupation               14 23325
## - Credit_Mix               3 25335
##
## Step: AIC=23076.98
## Credit_Score ~ Credit_Mix + Interest_Rate
##
##                               Df    AIC
## + Changed_Credit_Limit      1 23038
## + Num_Bank_Accounts         1 23042
## + Monthly_Balance           1 23051
## + Num_of_Loan               1 23054
## + Credit_History_Age        1 23057
## + Delay_from_due_date       1 23066
## + StudentLoan               1 23069
## + Outstanding_Debt          1 23071
## + Num_Credit_Card           1 23073
## + AutoLoan                  1 23073
## + Monthly_Inhand_Salary     1 23073
## + Age                       1 23076
## <none>                      23077
## + Amount_invested_monthly   1 23077
## + Num_Credit_Inquiries      1 23077
## + Total_EMI_per_month       1 23078
## + Num_of_Delayed_Payment    1 23078
## + DebtConsolidationLoan     1 23079
## + Credit_Utilization_Ratio  1 23079
## + PersonalLoan              1 23079
## + Annual_Income             1 23079
## + HomeEquityLoan            1 23079
## + Occupation                14 23093
## - Interest_Rate             1 23308
## - Credit_Mix                3 25296
##
## Step: AIC=23038.32
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit
##
##                               Df    AIC
## + Credit_History_Age        1 23000
## + Num_Bank_Accounts         1 23001
## + Num_of_Loan               1 23003
## + Monthly_Balance           1 23009
## + Outstanding_Debt          1 23010
## + Delay_from_due_date       1 23027
## + StudentLoan               1 23028
## + AutoLoan                  1 23033
## + Monthly_Inhand_Salary     1 23034
## + Num_Credit_Card           1 23035
## + Age                       1 23037
## <none>                      23038
## + Num_Credit_Inquiries      1 23039
## + Amount_invested_monthly   1 23039
## + DebtConsolidationLoan     1 23039
## + Total_EMI_per_month       1 23039
## + Num_of_Delayed_Payment    1 23040

```

```

## + HomeEquityLoan          1 23040
## + Credit_Utilization_Ratio 1 23040
## + Annual_Income           1 23040
## + PersonalLoan            1 23040
## + Occupation              14 23055
## - Changed_Credit_Limit     1 23077
## - Interest_Rate            1 23284
## - Credit_Mix               3 25030
##
## Step: AIC=23000.09
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age
##
##              Df    AIC
## + Num_Bank_Accounts      1 22966
## + Monthly_Balance        1 22976
## + Num_of_Loan            1 22980
## + Outstanding_Debt       1 22986
## + Delay_from_due_date    1 22990
## + StudentLoan            1 22993
## + Num_Credit_Card        1 22995
## + AutoLoan               1 22997
## + Monthly_Inhand_Salary  1 22997
## + Amount_invested_monthly 1 23000
## + Age                    1 23000
## <none>                   23000
## + Num_Credit_Inquiries   1 23000
## + Total_EMI_per_month    1 23001
## + Num_of_Delayed_Payment 1 23002
## + DebtConsolidationLoan  1 23002
## + Credit_Utilization_Ratio 1 23002
## + PersonalLoan           1 23002
## + Annual_Income          1 23002
## + HomeEquityLoan         1 23002
## + Occupation             14 23016
## - Credit_History_Age     1 23038
## - Changed_Credit_Limit   1 23057
## - Interest_Rate          1 23207
## - Credit_Mix             3 25028
##
## Step: AIC=22965.55
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts
##
##              Df    AIC
## + Monthly_Balance        1 22943
## + Num_of_Loan            1 22947
## + Outstanding_Debt       1 22952
## + Num_Credit_Card        1 22957
## + StudentLoan            1 22958
## + Delay_from_due_date    1 22960
## + AutoLoan               1 22962
## + Monthly_Inhand_Salary  1 22964
## + Amount_invested_monthly 1 22965
## + Num_Credit_Inquiries   1 22966
## <none>                   22966

```

```

## + Age 1 22966
## + Total_EMI_per_month 1 22967
## + Num_of_Delayed_Payment 1 22967
## + DebtConsolidationLoan 1 22967
## + PersonalLoan 1 22967
## + Credit_Utilization_Ratio 1 22967
## + Annual_Income 1 22968
## + HomeEquityLoan 1 22968
## + Occupation 14 22981
## - Num_Bank_Accounts 1 23000
## - Credit_History_Age 1 23001
## - Changed_Credit_Limit 1 23024
## - Interest_Rate 1 23156
## - Credit_Mix 3 24924
##
## Step: AIC=22943.06
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Num_Bank_Accounts + Monthly_Balance
##
## Df AIC
## + Outstanding_Debt 1 22932
## + Num_of_Loan 1 22933
## + Num_Credit_Card 1 22934
## + StudentLoan 1 22937
## + Delay_from_due_date 1 22938
## + AutoLoan 1 22941
## + Monthly_Inhand_Salary 1 22942
## + Credit_Utilization_Ratio 1 22943
## + Num_Credit_Inquiries 1 22943
## <none> 22943
## + Age 1 22943
## + Amount_invested_monthly 1 22943
## + Total_EMI_per_month 1 22944
## + PersonalLoan 1 22944
## + Num_of_Delayed_Payment 1 22945
## + HomeEquityLoan 1 22945
## + DebtConsolidationLoan 1 22945
## + Annual_Income 1 22952
## + Occupation 14 22959
## - Monthly_Balance 1 22966
## - Credit_History_Age 1 22974
## - Num_Bank_Accounts 1 22976
## - Changed_Credit_Limit 1 23003
## - Interest_Rate 1 23126
## - Credit_Mix 3 24924
##
## Step: AIC=22931.67
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
## Outstanding_Debt
##
## Df AIC
## + Num_Credit_Card 1 22921
## + Num_of_Loan 1 22925
## + StudentLoan 1 22927
## + Delay_from_due_date 1 22928

```

```

## + AutoLoan 1 22931
## + Monthly_Inhand_Salary 1 22931
## + Credit_Utilization_Ratio 1 22931
## <none> 22932
## + Num_Credit_Inquiries 1 22932
## + Amount_invested_monthly 1 22932
## + Age 1 22932
## + Total_EMI_per_month 1 22933
## + PersonalLoan 1 22933
## + Num_of_Delayed_Payment 1 22933
## + HomeEquityLoan 1 22934
## + Annual_Income 1 22934
## + DebtConsolidationLoan 1 22934
## - Outstanding_Debt 1 22943
## + Occupation 14 22947
## - Credit_History_Age 1 22952
## - Monthly_Balance 1 22952
## - Num_Bank_Accounts 1 22963
## - Changed_Credit_Limit 1 23004
## - Interest_Rate 1 23093
## - Credit_Mix 3 24753
##
## Step: AIC=22920.81
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
## Outstanding_Debt + Num_Credit_Card
##
## Df AIC
## + Num_of_Loan 1 22914
## + Delay_from_due_date 1 22915
## + StudentLoan 1 22916
## + AutoLoan 1 22920
## + Monthly_Inhand_Salary 1 22920
## + Credit_Utilization_Ratio 1 22920
## <none> 22921
## + Num_Credit_Inquiries 1 22921
## + Amount_invested_monthly 1 22921
## + Age 1 22921
## + Total_EMI_per_month 1 22922
## + PersonalLoan 1 22922
## + Num_of_Delayed_Payment 1 22922
## + HomeEquityLoan 1 22923
## + Annual_Income 1 22923
## + DebtConsolidationLoan 1 22923
## - Num_Credit_Card 1 22932
## - Outstanding_Debt 1 22934
## + Occupation 14 22936
## - Monthly_Balance 1 22942
## - Credit_History_Age 1 22942
## - Num_Bank_Accounts 1 22956
## - Changed_Credit_Limit 1 22994
## - Interest_Rate 1 23091
## - Credit_Mix 3 24739
##
## Step: AIC=22914.13
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +

```

```

##      Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
##      Outstanding_Debt + Num_Credit_Card + Num_of_Loan
##
##                                     Df    AIC
## + Delay_from_due_date             1 22908
## + StudentLoan                     1 22912
## + PersonalLoan                     1 22913
## + Credit_Utilization_Ratio        1 22914
## + Amount_invested_monthly          1 22914
## + HomeEquityLoan                   1 22914
## <none>                             22914
## + Num_Credit_Inquiries             1 22914
## + Age                              1 22915
## + Monthly_Inhand_Salary            1 22915
## + Total_EMI_per_month              1 22915
## + AutoLoan                         1 22915
## + DebtConsolidationLoan            1 22916
## + Num_of_Delayed_Payment           1 22916
## + Annual_Income                    1 22916
## - Num_of_Loan                      1 22921
## - Outstanding_Debt                 1 22924
## - Num_Credit_Card                  1 22925
## - Monthly_Balance                  1 22928
## + Occupation                       14 22929
## - Credit_History_Age               1 22930
## - Num_Bank_Accounts                 1 22949
## - Changed_Credit_Limit              1 22990
## - Interest_Rate                     1 23079
## - Credit_Mix                       3 24730
##
## Step:  AIC=22907.82
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
##      Outstanding_Debt + Num_Credit_Card + Num_of_Loan + Delay_from_due_date
##
##                                     Df    AIC
## + StudentLoan                     1 22906
## + PersonalLoan                     1 22906
## + Credit_Utilization_Ratio        1 22907
## + Amount_invested_monthly          1 22908
## + HomeEquityLoan                   1 22908
## <none>                             22908
## + Num_Credit_Inquiries             1 22908
## + Age                              1 22908
## + Monthly_Inhand_Salary            1 22909
## + AutoLoan                         1 22909
## + Total_EMI_per_month              1 22909
## + DebtConsolidationLoan            1 22909
## + Num_of_Delayed_Payment           1 22910
## + Annual_Income                    1 22910
## - Delay_from_due_date              1 22914
## - Num_of_Loan                      1 22915
## - Outstanding_Debt                 1 22917
## - Monthly_Balance                  1 22921
## - Num_Credit_Card                  1 22921
## + Occupation                       14 22923

```



```

## - Credit_History_Age      1 22923
## - Num_Bank_Accounts      1 22938
## - Changed_Credit_Limit   1 22983
## - Interest_Rate          1 23064
## - Credit_Mix             3 24732
##
## Step: AIC=22906.01
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
##      Outstanding_Debt + Num_Credit_Card + Num_of_Loan + Delay_from_due_date +
##      StudentLoan
##
##
##              Df    AIC
## + PersonalLoan      1 22905
## + Credit_Utilization_Ratio 1 22906
## + Amount_invested_monthly 1 22906
## <none>                22906
## + Num_Credit_Inquiries 1 22906
## + AutoLoan           1 22906
## + HomeEquityLoan     1 22907
## + Age                1 22907
## + Monthly_Inhand_Salary 1 22907
## + Total_EMI_per_month 1 22907
## + Num_of_Delayed_Payment 1 22908
## + DebtConsolidationLoan 1 22908
## - StudentLoan        1 22908
## + Annual_Income      1 22908
## - Num_of_Loan         1 22909
## - Delay_from_due_date 1 22912
## - Outstanding_Debt    1 22915
## - Monthly_Balance     1 22919
## - Num_Credit_Card     1 22920
## - Credit_History_Age  1 22921
## + Occupation         14 22921
## - Num_Bank_Accounts   1 22937
## - Changed_Credit_Limit 1 22982
## - Interest_Rate       1 23062
## - Credit_Mix          3 24732
##
## Step: AIC=22905.03
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
##      Outstanding_Debt + Num_Credit_Card + Num_of_Loan + Delay_from_due_date +
##      StudentLoan + PersonalLoan
##
##
##              Df    AIC
## + Credit_Utilization_Ratio 1 22905
## + HomeEquityLoan          1 22905
## + Amount_invested_monthly 1 22905
## <none>                    22905
## + Num_Credit_Inquiries    1 22905
## + Age                     1 22906
## + AutoLoan                 1 22906
## + Monthly_Inhand_Salary    1 22906
## + Total_EMI_per_month      1 22906
## - PersonalLoan             1 22906

```

```

## - StudentLoan          1 22906
## + DebtConsolidationLoan 1 22906
## + Num_of_Delayed_Payment 1 22907
## + Annual_Income        1 22907
## - Num_of_Loan          1 22911
## - Delay_from_due_date  1 22912
## - Outstanding_Debt     1 22914
## - Monthly_Balance      1 22918
## - Num_Credit_Card      1 22919
## - Credit_History_Age   1 22920
## + Occupation           14 22920
## - Num_Bank_Accounts    1 22936
## - Changed_Credit_Limit 1 22981
## - Interest_Rate        1 23060
## - Credit_Mix           3 24731
##
## Step: AIC=22904.67
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
##   Outstanding_Debt + Num_Credit_Card + Num_of_Loan + Delay_from_due_date +
##   StudentLoan + PersonalLoan + Credit_Utilization_Ratio
##
##              Df    AIC
## + Amount_invested_monthly  1 22905
## + HomeEquityLoan          1 22905
## <none>                    22905
## + Num_Credit_Inquiries    1 22905
## - Credit_Utilization_Ratio 1 22905
## + Age                     1 22905
## + AutoLoan                1 22905
## + Monthly_Inhand_Salary    1 22906
## + Total_EMI_per_month      1 22906
## - PersonalLoan            1 22906
## - StudentLoan             1 22906
## + DebtConsolidationLoan    1 22906
## + Num_of_Delayed_Payment    1 22906
## + Annual_Income            1 22907
## - Num_of_Loan              1 22910
## - Delay_from_due_date      1 22911
## - Outstanding_Debt         1 22914
## - Num_Credit_Card          1 22918
## - Credit_History_Age       1 22920
## + Occupation               14 22920
## - Monthly_Balance          1 22920
## - Num_Bank_Accounts        1 22936
## - Changed_Credit_Limit     1 22980
## - Interest_Rate            1 23060
## - Credit_Mix               3 24730
##
## Step: AIC=22904.49
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
##   Outstanding_Debt + Num_Credit_Card + Num_of_Loan + Delay_from_due_date +
##   StudentLoan + PersonalLoan + Credit_Utilization_Ratio + Amount_invested_monthly
##
##              Df    AIC

```

```

## + HomeEquityLoan          1 22904
## <none>                     22905
## + Num_Credit_Inquiries    1 22905
## - Amount_invested_monthly 1 22905
## - Credit_Utilization_Ratio 1 22905
## + Age                     1 22905
## + AutoLoan                1 22905
## - PersonalLoan            1 22905
## + Total_EMI_per_month     1 22905
## - StudentLoan             1 22906
## + DebtConsolidationLoan    1 22906
## + Num_of_Delayed_Payment    1 22906
## + Monthly_Inhand_Salary    1 22906
## + Annual_Income            1 22906
## - Num_of_Loan              1 22910
## - Delay_from_due_date      1 22911
## - Outstanding_Debt         1 22914
## - Num_Credit_Card          1 22918
## - Monthly_Balance          1 22918
## + Occupation               14 22919
## - Credit_History_Age       1 22920
## - Num_Bank_Accounts         1 22936
## - Changed_Credit_Limit     1 22980
## - Interest_Rate             1 23061
## - Credit_Mix                3 24707
##
## Step: AIC=22904.33
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##   Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
##   Outstanding_Debt + Num_Credit_Card + Num_of_Loan + Delay_from_due_date +
##   StudentLoan + PersonalLoan + Credit_Utilization_Ratio + Amount_invested_monthly +
##   HomeEquityLoan
##
##              Df    AIC
## <none>         22904
## - HomeEquityLoan      1 22905
## + Num_Credit_Inquiries 1 22905
## - Amount_invested_monthly 1 22905
## - StudentLoan         1 22905
## - Credit_Utilization_Ratio 1 22905
## + Age                 1 22905
## + Total_EMI_per_month 1 22905
## + DebtConsolidationLoan 1 22905
## + AutoLoan            1 22906
## - PersonalLoan        1 22906
## + Num_of_Delayed_Payment 1 22906
## + Monthly_Inhand_Salary 1 22906
## + Annual_Income       1 22906
## - Delay_from_due_date 1 22911
## - Num_of_Loan         1 22912
## - Outstanding_Debt    1 22914
## - Num_Credit_Card     1 22918
## - Monthly_Balance     1 22918
## + Occupation          14 22919
## - Credit_History_Age  1 22919
## - Num_Bank_Accounts   1 22936

```

```
## - Changed_Credit_Limit      1 22980
## - Interest_Rate             1 23061
## - Credit_Mix                3 24707
```

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##       Credit_History_Age + Num_Bank_Accounts + Monthly_Balance +
##       Outstanding_Debt + Num_Credit_Card + Num_of_Loan + Delay_from_due_date +
##       StudentLoan + PersonalLoan + Credit_Utilization_Ratio + Amount_invested_monthly +
##       HomeEquityLoan, data = train5)
##
## Coefficients:
##           Credit_MixBad      Credit_MixGood      Credit_MixStandard
##           2.311926e+00      -1.975731e-01      2.377867e+00
##           Interest_Rate      Changed_Credit_Limit      Credit_History_Age
##           -4.008956e-02      2.702873e-02      1.114237e-03
##           Num_Bank_Accounts      Monthly_Balance      Outstanding_Debt
##           -5.903478e-02      4.052665e-04      -8.936667e-05
##           Num_Credit_Card      Num_of_Loan      Delay_from_due_date
##           4.161517e-02      -3.897085e-02      -4.837338e-03
##           StudentLoan      PersonalLoan      Credit_Utilization_Ratio
##           -4.396613e-02      5.608812e-02      -5.611931e-03
##           Amount_invested_monthly      HomeEquityLoan
##           -1.453268e-04      4.375469e-02
##
## Intercepts:
##           Good|Poor      Poor|Standard
##           -0.6492075      1.0038195
##
## Residual Deviance: 22866.33
## AIC: 22904.33
```

6월

```
step(polr(Credit_Score ~1,train6), scope = list(lower~1, upper = ~Age+Occupation+Annual_Income+
Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_du
e_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_
Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_monthly+Mo
nthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), directio
n="both")
```

```
## Start:  AIC=25458
## Credit_Score ~ 1
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train6): design
## appears to be rank-deficient, so dropping some coefs
```

##		Df	AIC
##	+ Credit_Mix	2	23384
##	+ Changed_Credit_Limit	1	25166
##	+ Num_Bank_Accounts	1	25224
##	+ Interest_Rate	1	25410
##	+ Num_Credit_Card	1	25411
##	+ Amount_invested_monthly	1	25417
##	+ Monthly_Inhand_Salary	1	25418
##	+ Credit_History_Age	1	25420
##	+ Delay_from_due_date	1	25435
##	+ Age	1	25440
##	+ Monthly_Balance	1	25446
##	+ Annual_Income	1	25452
##	+ Num_of_Loan	1	25453
##	+ Credit_Utilization_Ratio	1	25454
##	+ PersonalLoan	1	25454
##	+ Num_Credit_Inquiries	1	25455
##	+ AutoLoan	1	25457
##	+ DebtConsolidationLoan	1	25457
##	+ HomeEquityLoan	1	25458
##	<none>		25458
##	+ Outstanding_Debt	1	25460
##	+ Num_of_Delayed_Payment	1	25460
##	+ StudentLoan	1	25460
##	+ Total_EMI_per_month	1	25460
##	+ Occupation	14	25465

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train6): design
## appears to be rank-deficient, so dropping some coefs
```

```
##
## Step:  AIC=23383.59
## Credit_Score ~ Credit_Mix
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Age, data = train6):
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Occupation, data =
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Annual_Income, data =
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Monthly_Inhand_Salary, :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts, :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Credit_Card, data =  
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =  
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_of_Loan, data =  
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Delay_from_due_date, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_of_Delayed_Payment, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Credit_Inquiries, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Outstanding_Debt, : design  
## appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix +  
## Credit_Utilization_Ratio, : design appears to be rank-deficient, so dropping  
## some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Credit_History_Age, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Total_EMI_per_month, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Amount_invested_monthly, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Monthly_Balance, data =  
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + AutoLoan, data = train6):  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + PersonalLoan, data =  
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + HomeEquityLoan, data =  
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + StudentLoan, data =  
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + DebtConsolidationLoan, :  
## design appears to be rank-deficient, so dropping some coefs
```

##	Df	AIC
## + Interest_Rate	1	23151
## + Credit_History_Age	1	23330
## + Outstanding_Debt	1	23341
## + Num_of_Loan	1	23345
## + Monthly_Balance	1	23349
## + Delay_from_due_date	1	23352
## + Num_Bank_Accounts	1	23358
## + Changed_Credit_Limit	1	23367
## + Monthly_Inhand_Salary	1	23369
## + Annual_Income	1	23375
## + StudentLoan	1	23376
## + Age	1	23381
## + Num_Credit_Inquiries	1	23382
## + AutoLoan	1	23383
## + HomeEquityLoan	1	23384
## <none>		23384
## + DebtConsolidationLoan	1	23384
## + PersonalLoan	1	23385
## + Num_of_Delayed_Payment	1	23385
## + Num_Credit_Card	1	23386
## + Credit_Utilization_Ratio	1	23386
## + Amount_invested_monthly	1	23386
## + Total_EMI_per_month	1	23386
## + Occupation	14	23392
## - Credit_Mix	2	25458

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =  
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
##  
## Step: AIC=23150.69  
## Credit_Score ~ Credit_Mix + Interest_Rate
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train6): design  
## appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Age, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Occupation, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Annual_Income, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Monthly_Inhand_Salary, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Credit_Card, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_of_Loan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Delay_from_due_date, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_of_Delayed_Payment, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Credit_Inquiries, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Outstanding_Debt, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Credit_Utilization_Ratio, : design appears to be rank-deficient, so dropping  
## some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Credit_History_Age, : design appears to be rank-deficient, so dropping some  
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Total_EMI_per_month, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Amount_invested_monthly, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Monthly_Balance, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## AutoLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## PersonalLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## HomeEquityLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## StudentLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## DebtConsolidationLoan, : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Changed_Credit_Limit		1	23123
## + Monthly_Balance		1	23128
## + Credit_History_Age		1	23130
## + Num_of_Loan		1	23136
## + Num_Bank_Accounts		1	23138
## + Delay_from_due_date		1	23140
## + Outstanding_Debt		1	23142
## + Annual_Income		1	23142
## + Monthly_Inhand_Salary		1	23144
## + Num_Credit_Card		1	23147
## + StudentLoan		1	23147
## + Num_Credit_Inquiries		1	23149
## <none>			23151
## + Age		1	23151
## + Amount_invested_monthly		1	23152
## + AutoLoan		1	23152
## + DebtConsolidationLoan		1	23152
## + HomeEquityLoan		1	23152
## + Total_EMI_per_month		1	23153
## + Num_of_Delayed_Payment		1	23153
## + Credit_Utilization_Ratio		1	23153
## + PersonalLoan		1	23153
## + Occupation		14	23158
## - Interest_Rate		1	23384
## - Credit_Mix		2	25410

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23122.58
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit, :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =
## train6): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
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## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
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## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
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## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Credit_History_Age		1	23087
## + Outstanding_Debt		1	23091
## + Monthly_Balance		1	23098
## + Num_of_Loan		1	23099
## + Num_Bank_Accounts		1	23109
## + Delay_from_due_date		1	23111
## + Annual_Income		1	23114
## + Monthly_Inhand_Salary		1	23116
## + StudentLoan		1	23117
## + Num_Credit_Card		1	23119
## + Num_Credit_Inquiries		1	23121
## + Age		1	23122
## <none>			23123
## + AutoLoan		1	23123
## + HomeEquityLoan		1	23124
## + DebtConsolidationLoan		1	23124
## + Amount_invested_monthly		1	23124
## + PersonalLoan		1	23125
## + Total_EMI_per_month		1	23125
## + Num_of_Delayed_Payment		1	23125
## + Credit_Utilization_Ratio		1	23125
## + Occupation		14	23130
## - Changed_Credit_Limit		1	23151
## - Interest_Rate		1	23367
## - Credit_Mix		2	25165

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23086.84
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age, : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Monthly_Balance		1	23067
## + Outstanding_Debt		1	23070
## + Num_Bank_Accounts		1	23075
## + Num_of_Loan		1	23075
## + Delay_from_due_date		1	23077
## + Annual_Income		1	23078
## + Monthly_Inhand_Salary		1	23082
## + Num_Credit_Card		1	23082
## + StudentLoan		1	23084
## + Num_Credit_Inquiries		1	23085
## <none>			23087
## + Age		1	23088
## + Amount_invested_monthly		1	23088
## + AutoLoan		1	23088
## + HomeEquityLoan		1	23089
## + DebtConsolidationLoan		1	23089
## + Total_EMI_per_month		1	23089
## + Num_of_Delayed_Payment		1	23089
## + PersonalLoan		1	23089
## + Credit_Utilization_Ratio		1	23089
## + Occupation		14	23094
## - Credit_History_Age		1	23123
## - Changed_Credit_Limit		1	23130
## - Interest_Rate		1	23293
## - Credit_Mix		2	25165

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23067.33
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Outstanding_Debt		1	23052
## + Num_Bank_Accounts		1	23056
## + Delay_from_due_date		1	23058
## + Annual_Income		1	23059
## + Num_Credit_Card		1	23062
## + Num_of_Loan		1	23063
## + Num_Credit_Inquiries		1	23065
## + StudentLoan		1	23066
## <none>			23067
## + Credit_Utilization_Ratio		1	23068
## + Age		1	23068
## + Amount_invested_monthly		1	23069
## + PersonalLoan		1	23069
## + Monthly_Inhand_Salary		1	23069
## + AutoLoan		1	23069
## + Total_EMI_per_month		1	23069
## + HomeEquityLoan		1	23069
## + Num_of_Delayed_Payment		1	23069
## + DebtConsolidationLoan		1	23069
## + Occupation		14	23074
## - Monthly_Balance		1	23087
## - Credit_History_Age		1	23098
## - Changed_Credit_Limit		1	23112
## - Interest_Rate		1	23266
## - Credit_Mix		2	25167

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23051.87
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance + Outstanding_Debt
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Num_Bank_Accounts		1	23041
## + Delay_from_due_date		1	23044
## + Annual_Income		1	23044
## + Num_Credit_Card		1	23044
## + Num_of_Loan		1	23050
## + Num_Credit_Inquiries		1	23050
## + StudentLoan		1	23051
## <none>			23052
## + Credit_Utilization_Ratio		1	23053
## + Age		1	23053
## + Amount_invested_monthly		1	23053
## + PersonalLoan		1	23053
## + Monthly_Inhand_Salary		1	23054
## + Total_EMI_per_month		1	23054
## + Num_of_Delayed_Payment		1	23054
## + AutoLoan		1	23054
## + DebtConsolidationLoan		1	23054
## + HomeEquityLoan		1	23054
## + Occupation		14	23058
## - Outstanding_Debt		1	23067
## - Monthly_Balance		1	23070
## - Credit_History_Age		1	23070
## - Changed_Credit_Limit		1	23111
## - Interest_Rate		1	23224
## - Credit_Mix		2	25025

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23041.28
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance + Outstanding_Debt +
## Num_Bank_Accounts
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```


##		Df	AIC
## + Num_Credit_Card		1	23032
## + Annual_Income		1	23033
## + Delay_from_due_date		1	23036
## + Num_Credit_Inquiries		1	23039
## + Num_of_Loan		1	23040
## + StudentLoan		1	23040
## <none>			23041
## + Credit_Utilization_Ratio		1	23042
## + Amount_invested_monthly		1	23043
## + Age		1	23043
## + PersonalLoan		1	23043
## + Monthly_Inhand_Salary		1	23043
## + Total_EMI_per_month		1	23043
## + Num_of_Delayed_Payment		1	23043
## + AutoLoan		1	23043
## + DebtConsolidationLoan		1	23043
## + HomeEquityLoan		1	23043
## + Occupation		14	23048
## - Num_Bank_Accounts		1	23052
## - Outstanding_Debt		1	23056
## - Monthly_Balance		1	23058
## - Credit_History_Age		1	23059
## - Changed_Credit_Limit		1	23100
## - Interest_Rate		1	23205
## - Credit_Mix		2	24827

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23031.7
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance + Outstanding_Debt +
## Num_Bank_Accounts + Num_Credit_Card
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Delay_from_due_date		1	23024
## + Annual_Income		1	23024
## + Num_of_Loan		1	23030
## + Num_Credit_Inquiries		1	23030
## + StudentLoan		1	23031
## <none>			23032
## + Credit_Utilization_Ratio		1	23033
## + Age		1	23033
## + Amount_invested_monthly		1	23033
## + PersonalLoan		1	23033
## + Monthly_Inhand_Salary		1	23033
## + Total_EMI_per_month		1	23034
## + Num_of_Delayed_Payment		1	23034
## + AutoLoan		1	23034
## + DebtConsolidationLoan		1	23034
## + HomeEquityLoan		1	23034
## + Occupation		14	23038
## - Num_Credit_Card		1	23041
## - Num_Bank_Accounts		1	23044
## - Outstanding_Debt		1	23049
## - Monthly_Balance		1	23049
## - Credit_History_Age		1	23051
## - Changed_Credit_Limit		1	23091
## - Interest_Rate		1	23204
## - Credit_Mix		2	24815

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23023.6
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance + Outstanding_Debt +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Annual_Income		1	23016
## + Num_of_Loan		1	23022
## + Num_Credit_Inquiries		1	23022
## + StudentLoan		1	23023
## <none>			23024
## + Credit_Utilization_Ratio		1	23025
## + Age		1	23025
## + Amount_invested_monthly		1	23025
## + PersonalLoan		1	23025
## + Monthly_Inhand_Salary		1	23025
## + Total_EMI_per_month		1	23025
## + AutoLoan		1	23026
## + Num_of_Delayed_Payment		1	23026
## + HomeEquityLoan		1	23026
## + DebtConsolidationLoan		1	23026
## + Occupation		14	23030
## - Delay_from_due_date		1	23032
## - Num_Bank_Accounts		1	23033
## - Num_Credit_Card		1	23036
## - Outstanding_Debt		1	23040
## - Monthly_Balance		1	23041
## - Credit_History_Age		1	23042
## - Changed_Credit_Limit		1	23082
## - Interest_Rate		1	23184
## - Credit_Mix		2	24816

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23016.39
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance + Outstanding_Debt +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
## Annual_Income
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	+ Num_of_Loan	1	23015
##	+ Num_Credit_Inquiries	1	23015
##	+ StudentLoan	1	23016
##	<none>		23016
##	+ Amount_invested_monthly	1	23018
##	+ PersonalLoan	1	23018
##	+ Credit_Utilization_Ratio	1	23018
##	+ Age	1	23018
##	+ Monthly_Inhand_Salary	1	23018
##	+ Total_EMI_per_month	1	23018
##	+ AutoLoan	1	23018
##	+ Num_of_Delayed_Payment	1	23018
##	+ DebtConsolidationLoan	1	23018
##	+ HomeEquityLoan	1	23018
##	+ Occupation	14	23023
##	- Annual_Income	1	23024
##	- Delay_from_due_date	1	23024
##	- Num_Bank_Accounts	1	23026
##	- Num_Credit_Card	1	23028
##	- Outstanding_Debt	1	23032
##	- Monthly_Balance	1	23033
##	- Credit_History_Age	1	23035
##	- Changed_Credit_Limit	1	23075
##	- Interest_Rate	1	23177
##	- Credit_Mix	2	24810

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23014.78
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance + Outstanding_Debt +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
## Annual_Income + Num_of_Loan
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	+ Num_Credit_Inquiries	1	23013
##	+ PersonalLoan	1	23015
##	<none>		23015
##	+ StudentLoan	1	23015
##	+ Amount_invested_monthly	1	23016
##	+ Credit_Utilization_Ratio	1	23016
##	+ Age	1	23016
##	- Num_of_Loan	1	23016
##	+ HomeEquityLoan	1	23016
##	+ DebtConsolidationLoan	1	23017
##	+ Total_EMI_per_month	1	23017
##	+ Monthly_Inhand_Salary	1	23017
##	+ AutoLoan	1	23017
##	+ Num_of_Delayed_Payment	1	23017
##	+ Occupation	14	23021
##	- Annual_Income	1	23022
##	- Delay_from_due_date	1	23022
##	- Num_Bank_Accounts	1	23025
##	- Num_Credit_Card	1	23027
##	- Monthly_Balance	1	23027
##	- Outstanding_Debt	1	23028
##	- Credit_History_Age	1	23030
##	- Changed_Credit_Limit	1	23075
##	- Interest_Rate	1	23173
##	- Credit_Mix	2	24807

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23013.28
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance + Outstanding_Debt +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
## Annual_Income + Num_of_Loan + Num_Credit_Inquiries
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	+ PersonalLoan	1	23013
##	<none>		23013
##	+ StudentLoan	1	23014
##	+ Amount_invested_monthly	1	23014
##	+ Credit_Utilization_Ratio	1	23015
##	+ Age	1	23015
##	- Num_Credit_Inquiries	1	23015
##	- Num_of_Loan	1	23015
##	+ HomeEquityLoan	1	23015
##	+ DebtConsolidationLoan	1	23015
##	+ Total_EMI_per_month	1	23015
##	+ Monthly_Inhand_Salary	1	23015
##	+ Num_of_Delayed_Payment	1	23015
##	+ AutoLoan	1	23015
##	+ Occupation	14	23019
##	- Annual_Income	1	23020
##	- Delay_from_due_date	1	23020
##	- Num_Bank_Accounts	1	23023
##	- Num_Credit_Card	1	23025
##	- Monthly_Balance	1	23025
##	- Outstanding_Debt	1	23026
##	- Credit_History_Age	1	23028
##	- Changed_Credit_Limit	1	23073
##	- Interest_Rate	1	23171
##	- Credit_Mix	2	24805

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23013.04
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Credit_History_Age + Monthly_Balance + Outstanding_Debt +
## Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
## Annual_Income + Num_of_Loan + Num_Credit_Inquiries + PersonalLoan
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Credit_History_Age + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	<none>		23013
##	- PersonalLoan	1	23013
##	+ StudentLoan	1	23014
##	+ Amount_invested_monthly	1	23014
##	+ Credit_Utilization_Ratio	1	23014
##	+ HomeEquityLoan	1	23014
##	+ Age	1	23015
##	+ DebtConsolidationLoan	1	23015
##	- Num_Credit_Inquiries	1	23015
##	+ AutoLoan	1	23015
##	+ Total_EMI_per_month	1	23015
##	+ Monthly_Inhand_Salary	1	23015
##	+ Num_of_Delayed_Payment	1	23015
##	- Num_of_Loan	1	23016
##	+ Occupation	14	23019
##	- Annual_Income	1	23020
##	- Delay_from_due_date	1	23020
##	- Num_Bank_Accounts	1	23023
##	- Num_Credit_Card	1	23025
##	- Monthly_Balance	1	23025
##	- Outstanding_Debt	1	23026
##	- Credit_History_Age	1	23028
##	- Changed_Credit_Limit	1	23073
##	- Interest_Rate	1	23171
##	- Credit_Mix	2	24805

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##       Credit_History_Age + Monthly_Balance + Outstanding_Debt +
##       Num_Bank_Accounts + Num_Credit_Card + Delay_from_due_date +
##       Annual_Income + Num_of_Loan + Num_Credit_Inquiries + PersonalLoan,
##       data = train6)
##
## Coefficients:
##       Credit_MixBad      Credit_MixGood      Interest_Rate
##      -8.669774e-02      -2.548365e+00      -4.007396e-02
## Changed_Credit_Limit  Credit_History_Age  Monthly_Balance
##      2.413303e-02      1.109557e-03      3.710661e-04
## Outstanding_Debt     Num_Bank_Accounts     Num_Credit_Card
##     -1.016350e-04     -3.566385e-02      3.910154e-02
## Delay_from_due_date   Annual_Income         Num_of_Loan
##     -4.957615e-03      3.639309e-08     -2.521551e-02
## Num_Credit_Inquiries   PersonalLoan
##     -1.635220e-04      4.377189e-02
##
## Intercepts:
##      Good|Poor  Poor|Standard
##     -2.686375    -1.037005
##
## Residual Deviance: 22981.04
## AIC: 23013.04
```

7월

```
step(polr(Credit_Score ~1,train7), scope = list(lower~1, upper = ~Age+Occupation+Annual_Income+
Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_due_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_monthly+Monthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), direction="both")
```

```
## Start: AIC=25427.08
## Credit_Score ~ 1
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train7): design
## appears to be rank-deficient, so dropping some coefs
```

##	Df	AIC
## + Credit_Mix	2	24192
## + Changed_Credit_Limit	1	25259
## + Num_Bank_Accounts	1	25314
## + Amount_invested_monthly	1	25369
## + Interest_Rate	1	25377
## + Credit_History_Age	1	25382
## + Num_Credit_Card	1	25387
## + Monthly_Inhand_Salary	1	25401
## + Age	1	25402
## + Delay_from_due_date	1	25405
## + Num_of_Loan	1	25414
## + PersonalLoan	1	25421
## + AutoLoan	1	25423
## + Monthly_Balance	1	25424
## + DebtConsolidationLoan	1	25425
## + HomeEquityLoan	1	25427
## <none>		25427
## + Outstanding_Debt	1	25427
## + Num_Credit_Inquiries	1	25428
## + Credit_Utilization_Ratio	1	25429
## + StudentLoan	1	25429
## + Annual_Income	1	25429
## + Total_EMI_per_month	1	25429
## + Num_of_Delayed_Payment	1	25429
## + Occupation	14	25446

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train7): design
## appears to be rank-deficient, so dropping some coefs
```

```
##
## Step: AIC=24191.78
## Credit_Score ~ Credit_Mix
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Age, data = train7):  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Occupation, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Annual_Income, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Monthly_Inhand_Salary, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Credit_Card, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_of_Loan, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Delay_from_due_date, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_of_Delayed_Payment, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Credit_Inquiries, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Outstanding_Debt, : design  
## appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix +  
## Credit_Utilization_Ratio, : design appears to be rank-deficient, so dropping  
## some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Credit_History_Age, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Total_EMI_per_month, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Amount_invested_monthly, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Monthly_Balance, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + AutoLoan, data = train7):  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + PersonalLoan, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + HomeEquityLoan, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + StudentLoan, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + DebtConsolidationLoan, :  
## design appears to be rank-deficient, so dropping some coefs
```

##	Df	AIC
## + Interest_Rate	1	24090
## + Num_Bank_Accounts	1	24145
## + Monthly_Balance	1	24160
## + Delay_from_due_date	1	24175
## + Outstanding_Debt	1	24176
## + Credit_History_Age	1	24177
## + Num_of_Loan	1	24183
## + Monthly_Inhand_Salary	1	24184
## + Credit_Utilization_Ratio	1	24186
## + Changed_Credit_Limit	1	24186
## + Amount_invested_monthly	1	24187
## + StudentLoan	1	24189
## <none>		24192
## + HomeEquityLoan	1	24193
## + Total_EMI_per_month	1	24193
## + DebtConsolidationLoan	1	24194
## + Num_Credit_Inquiries	1	24194
## + Num_Credit_Card	1	24194
## + Num_of_Delayed_Payment	1	24194
## + AutoLoan	1	24194
## + Age	1	24194
## + PersonalLoan	1	24194
## + Annual_Income	1	24194
## + Occupation	14	24211
## - Credit_Mix	2	25427

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
##
## Step: AIC=24089.93
## Credit_Score ~ Credit_Mix + Interest_Rate
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train7): design
## appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Age, :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Occupation, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Annual_Income, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Inhand_Salary, : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Credit_Card, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_of_Loan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Delay_from_due_date, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_of_Delayed_Payment, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Credit_Inquiries, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Outstanding_Debt, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Credit_Utilization_Ratio, : design appears to be rank-deficient, so dropping  
## some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Credit_History_Age, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Total_EMI_per_month, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Amount_invested_monthly, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Monthly_Balance, : design appears to be rank-deficient, so dropping some coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## AutoLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## PersonalLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## HomeEquityLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## StudentLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## DebtConsolidationLoan, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
##           Df   AIC  
## + Num_Bank_Accounts      1 24056  
## + Monthly_Balance        1 24066  
## + Changed_Credit_Limit   1 24079  
## + Amount_invested_monthly 1 24082  
## + Delay_from_due_date    1 24084  
## + Credit_Utilization_Ratio 1 24085  
## + Monthly_Inhand_Salary  1 24086  
## + Credit_History_Age     1 24087  
## + Num_Credit_Card        1 24088  
## + Outstanding_Debt       1 24088  
## + Num_of_Loan            1 24089  
## + StudentLoan            1 24089  
## <none>                   24090  
## + Total_EMI_per_month    1 24091  
## + PersonalLoan           1 24092  
## + Num_Credit_Inquiries   1 24092  
## + Age                    1 24092  
## + HomeEquityLoan         1 24092  
## + AutoLoan               1 24092  
## + Num_of_Delayed_Payment 1 24092  
## + DebtConsolidationLoan  1 24092  
## + Annual_Income          1 24092  
## + Occupation             14 24109  
## - Interest_Rate          1 24192  
## - Credit_Mix             2 25377
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts, : design appears to be rank-deficient, so dropping some coefs
```

```
##  
## Step:  AIC=24055.61  
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =  
## train7): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## +	Monthly_Balance	1	24034
## +	Changed_Credit_Limit	1	24044
## +	Amount_invested_monthly	1	24047
## +	Num_Credit_Card	1	24050
## +	Credit_Utilization_Ratio	1	24051
## +	Monthly_Inhand_Salary	1	24053
## +	Delay_from_due_date	1	24053
## +	Credit_History_Age	1	24053
## +	StudentLoan	1	24055
## +	Outstanding_Debt	1	24055
## +	Num_of_Loan	1	24055
##	<none>		24056
## +	Total_EMI_per_month	1	24057
## +	PersonalLoan	1	24057
## +	Age	1	24057
## +	Num_Credit_Inquiries	1	24057
## +	AutoLoan	1	24058
## +	HomeEquityLoan	1	24058
## +	Num_of_Delayed_Payment	1	24058
## +	DebtConsolidationLoan	1	24058
## +	Annual_Income	1	24058
## +	Occupation	14	24075
## -	Num_Bank_Accounts	1	24090
## -	Interest_Rate	1	24145
## -	Credit_Mix	2	25315

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=24034.04
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Monthly_Balance
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Balance, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Changed_Credit_Limit		1	24021
## + Amount_invested_monthly		1	24027
## + Num_Credit_Card		1	24028
## + Delay_from_due_date		1	24032
## + Credit_Utilization_Ratio		1	24034
## + Credit_History_Age		1	24034
## <none>			24034
## + Monthly_Inhand_Salary		1	24034
## + StudentLoan		1	24034
## + Outstanding_Debt		1	24034
## + PersonalLoan		1	24035
## + AutoLoan		1	24036
## + Total_EMI_per_month		1	24036
## + Age		1	24036
## + Num_Credit_Inquiries		1	24036
## + DebtConsolidationLoan		1	24036
## + Num_of_Loan		1	24036
## + Num_of_Delayed_Payment		1	24036
## + Annual_Income		1	24036
## + HomeEquityLoan		1	24036
## + Occupation		14	24053
## - Monthly_Balance		1	24056
## - Num_Bank_Accounts		1	24066
## - Interest_Rate		1	24116
## - Credit_Mix		2	25315

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=24021.05
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Monthly_Balance + Changed_Credit_Limit
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Balance + : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Amount_invested_monthly		1	24014
## + Outstanding_Debt		1	24015
## + Num_Credit_Card		1	24016
## + Credit_History_Age		1	24017
## + Delay_from_due_date		1	24019
## + Credit_Utilization_Ratio		1	24021
## + StudentLoan		1	24021
## + Monthly_Inhand_Salary		1	24021
## <none>			24021
## + PersonalLoan		1	24022
## + Num_of_Loan		1	24022
## + Total_EMI_per_month		1	24023
## + AutoLoan		1	24023
## + Num_Credit_Inquiries		1	24023
## + Age		1	24023
## + Num_of_Delayed_Payment		1	24023
## + DebtConsolidationLoan		1	24023
## + Annual_Income		1	24023
## + HomeEquityLoan		1	24023
## - Changed_Credit_Limit		1	24034
## + Occupation		14	24040
## - Monthly_Balance		1	24044
## - Num_Bank_Accounts		1	24054
## - Interest_Rate		1	24109
## - Credit_Mix		2	25206

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=24014.37
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Monthly_Balance + Changed_Credit_Limit + Amount_invested_monthly
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Balance + : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Outstanding_Debt		1	24008
## + Num_Credit_Card		1	24010
## + Credit_History_Age		1	24010
## + Monthly_Inhand_Salary		1	24012
## + Delay_from_due_date		1	24012
## + StudentLoan		1	24014
## + Credit_Utilization_Ratio		1	24014
## <none>			24014
## + Num_of_Loan		1	24015
## + PersonalLoan		1	24016
## + Total_EMI_per_month		1	24016
## + Num_Credit_Inquiries		1	24016
## + AutoLoan		1	24016
## + Age		1	24016
## + Num_of_Delayed_Payment		1	24016
## + DebtConsolidationLoan		1	24016
## + HomeEquityLoan		1	24016
## + Annual_Income		1	24016
## - Amount_invested_monthly		1	24021
## - Changed_Credit_Limit		1	24027
## + Occupation		14	24033
## - Monthly_Balance		1	24036
## - Num_Bank_Accounts		1	24048
## - Interest_Rate		1	24105
## - Credit_Mix		2	25179

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=24007.73
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Monthly_Balance + Changed_Credit_Limit + Amount_invested_monthly +
## Outstanding_Debt
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Balance + : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Num_Credit_Card		1	24002
## + Monthly_Inhand_Salary		1	24005
## + Delay_from_due_date		1	24006
## + Credit_History_Age		1	24006
## + Credit_Utilization_Ratio		1	24007
## <none>			24008
## + StudentLoan		1	24008
## + PersonalLoan		1	24008
## + AutoLoan		1	24009
## + Total_EMI_per_month		1	24009
## + Age		1	24009
## + Num_Credit_Inquiries		1	24009
## + Num_of_Loan		1	24010
## + Num_of_Delayed_Payment		1	24010
## + DebtConsolidationLoan		1	24010
## + Annual_Income		1	24010
## + HomeEquityLoan		1	24010
## - Outstanding_Debt		1	24014
## - Amount_invested_monthly		1	24015
## - Monthly_Balance		1	24027
## + Occupation		14	24027
## - Changed_Credit_Limit		1	24027
## - Num_Bank_Accounts		1	24040
## - Interest_Rate		1	24083
## - Credit_Mix		2	25087

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=24001.57
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Monthly_Balance + Changed_Credit_Limit + Amount_invested_monthly +
## Outstanding_Debt + Num_Credit_Card
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Balance + : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Delay_from_due_date		1	23998
## + Monthly_Inhand_Salary		1	23999
## + Credit_History_Age		1	23999
## + Credit_Utilization_Ratio		1	24001
## <none>			24002
## + StudentLoan		1	24002
## + PersonalLoan		1	24002
## + AutoLoan		1	24003
## + Total_EMI_per_month		1	24003
## + Num_Credit_Inquiries		1	24003
## + Age		1	24003
## + Num_of_Loan		1	24003
## + Num_of_Delayed_Payment		1	24004
## + DebtConsolidationLoan		1	24004
## + Annual_Income		1	24004
## + HomeEquityLoan		1	24004
## - Num_Credit_Card		1	24008
## - Amount_invested_monthly		1	24008
## - Outstanding_Debt		1	24010
## + Occupation		14	24021
## - Monthly_Balance		1	24021
## - Changed_Credit_Limit		1	24021
## - Num_Bank_Accounts		1	24037
## - Interest_Rate		1	24082
## - Credit_Mix		2	25078

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23998.29
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Monthly_Balance + Changed_Credit_Limit + Amount_invested_monthly +
## Outstanding_Debt + Num_Credit_Card + Delay_from_due_date
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Balance + : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Monthly_Inhand_Salary		1	23995
## + Credit_History_Age		1	23996
## + Credit_Utilization_Ratio		1	23998
## <none>			23998
## + StudentLoan		1	23998
## + PersonalLoan		1	23999
## + AutoLoan		1	24000
## + Total_EMI_per_month		1	24000
## + Num_Credit_Inquiries		1	24000
## + Age		1	24000
## + Num_of_Loan		1	24000
## + Num_of_Delayed_Payment		1	24000
## + DebtConsolidationLoan		1	24000
## + Annual_Income		1	24000
## + HomeEquityLoan		1	24000
## - Delay_from_due_date		1	24002
## - Amount_invested_monthly		1	24005
## - Outstanding_Debt		1	24006
## - Num_Credit_Card		1	24006
## + Occupation		14	24017
## - Monthly_Balance		1	24017
## - Changed_Credit_Limit		1	24018
## - Num_Bank_Accounts		1	24030
## - Interest_Rate		1	24074
## - Credit_Mix		2	25080

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23995.2
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Monthly_Balance + Changed_Credit_Limit + Amount_invested_monthly +
## Outstanding_Debt + Num_Credit_Card + Delay_from_due_date +
## Monthly_Inhand_Salary
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Balance + : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```


##		Df	AIC
## + Credit_History_Age		1	23993
## - Monthly_Balance		1	23993
## + StudentLoan		1	23995
## + Num_of_Loan		1	23995
## + Credit_Utilization_Ratio		1	23995
## <none>			23995
## + PersonalLoan		1	23996
## + Num_Credit_Inquiries		1	23997
## + Total_EMI_per_month		1	23997
## + Age		1	23997
## + AutoLoan		1	23997
## + Num_of_Delayed_Payment		1	23997
## + HomeEquityLoan		1	23997
## + Annual_Income		1	23997
## + DebtConsolidationLoan		1	23997
## - Monthly_Inhand_Salary		1	23998
## - Delay_from_due_date		1	23999
## - Num_Credit_Card		1	24003
## - Outstanding_Debt		1	24003
## - Amount_invested_monthly		1	24005
## - Changed_Credit_Limit		1	24014
## + Occupation		14	24014
## - Num_Bank_Accounts		1	24026
## - Interest_Rate		1	24071
## - Credit_Mix		2	25077

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23992.47
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Monthly_Balance + Changed_Credit_Limit + Amount_invested_monthly +
## Outstanding_Debt + Num_Credit_Card + Delay_from_due_date +
## Monthly_Inhand_Salary + Credit_History_Age
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Balance + : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## -	Monthly_Balance	1	23991
## +	StudentLoan	1	23992
## +	Credit_Utilization_Ratio	1	23992
##	<none>		23993
## +	Num_of_Loan	1	23993
## +	PersonalLoan	1	23994
## +	Num_Credit_Inquiries	1	23994
## +	Age	1	23994
## +	Total_EMI_per_month	1	23994
## +	AutoLoan	1	23994
## +	Num_of_Delayed_Payment	1	23994
## +	DebtConsolidationLoan	1	23994
## +	Annual_Income	1	23994
## +	HomeEquityLoan	1	23995
## -	Credit_History_Age	1	23995
## -	Delay_from_due_date	1	23996
## -	Monthly_Inhand_Salary	1	23996
## -	Outstanding_Debt	1	23997
## -	Num_Credit_Card	1	24000
## -	Amount_invested_monthly	1	24004
## +	Occupation	14	24011
## -	Changed_Credit_Limit	1	24014
## -	Num_Bank_Accounts	1	24023
## -	Interest_Rate	1	24063
## -	Credit_Mix	2	25075

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23990.47
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Changed_Credit_Limit + Amount_invested_monthly + Outstanding_Debt +
## Num_Credit_Card + Delay_from_due_date + Monthly_Inhand_Salary +
## Credit_History_Age
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + StudentLoan		1	23990
## + Credit_Utilization_Ratio		1	23990
## <none>			23991
## + Num_of_Loan		1	23991
## + PersonalLoan		1	23992
## + Num_Credit_Inquiries		1	23992
## + Age		1	23992
## + Total_EMI_per_month		1	23992
## + AutoLoan		1	23992
## + Num_of_Delayed_Payment		1	23992
## + DebtConsolidationLoan		1	23992
## + Annual_Income		1	23992
## + HomeEquityLoan		1	23993
## + Monthly_Balance		1	23993
## - Credit_History_Age		1	23993
## - Delay_from_due_date		1	23994
## - Outstanding_Debt		1	23995
## - Num_Credit_Card		1	23998
## + Occupation		14	24009
## - Changed_Credit_Limit		1	24012
## - Monthly_Inhand_Salary		1	24014
## - Num_Bank_Accounts		1	24021
## - Amount_invested_monthly		1	24021
## - Interest_Rate		1	24061
## - Credit_Mix		2	25075

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23990.17
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Changed_Credit_Limit + Amount_invested_monthly + Outstanding_Debt +
## Num_Credit_Card + Delay_from_due_date + Monthly_Inhand_Salary +
## Credit_History_Age + StudentLoan
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	+ Credit_Utilization_Ratio	1	23990
##	<none>		23990
##	- StudentLoan	1	23991
##	+ PersonalLoan	1	23991
##	+ Num_of_Loan	1	23992
##	+ Age	1	23992
##	+ Num_Credit_Inquiries	1	23992
##	+ Total_EMI_per_month	1	23992
##	+ AutoLoan	1	23992
##	+ Num_of_Delayed_Payment	1	23992
##	+ Monthly_Balance	1	23992
##	+ Annual_Income	1	23992
##	+ HomeEquityLoan	1	23992
##	+ DebtConsolidationLoan	1	23992
##	- Credit_History_Age	1	23993
##	- Delay_from_due_date	1	23993
##	- Outstanding_Debt	1	23994
##	- Num_Credit_Card	1	23998
##	+ Occupation	14	24009
##	- Changed_Credit_Limit	1	24012
##	- Monthly_Inhand_Salary	1	24013
##	- Amount_invested_monthly	1	24021
##	- Num_Bank_Accounts	1	24021
##	- Interest_Rate	1	24061
##	- Credit_Mix	2	25075

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23989.97
## Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
## Changed_Credit_Limit + Amount_invested_monthly + Outstanding_Debt +
## Num_Credit_Card + Delay_from_due_date + Monthly_Inhand_Salary +
## Credit_History_Age + StudentLoan + Credit_Utilization_Ratio
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	<none>		23990
##	- Credit_Utilization_Ratio	1	23990
##	- StudentLoan	1	23990
##	+ PersonalLoan	1	23991
##	+ Age	1	23992
##	+ Num_Credit_Inquiries	1	23992
##	+ Num_of_Loan	1	23992
##	+ Total_EMI_per_month	1	23992
##	+ AutoLoan	1	23992
##	+ Num_of_Delayed_Payment	1	23992
##	+ Monthly_Balance	1	23992
##	+ DebtConsolidationLoan	1	23992
##	+ Annual_Income	1	23992
##	+ HomeEquityLoan	1	23992
##	- Credit_History_Age	1	23992
##	- Delay_from_due_date	1	23993
##	- Outstanding_Debt	1	23994
##	- Num_Credit_Card	1	23998
##	+ Occupation	14	24009
##	- Monthly_Inhand_Salary	1	24009
##	- Changed_Credit_Limit	1	24012
##	- Amount_invested_monthly	1	24017
##	- Num_Bank_Accounts	1	24021
##	- Interest_Rate	1	24060
##	- Credit_Mix	2	25076

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Num_Bank_Accounts +
##      Changed_Credit_Limit + Amount_invested_monthly + Outstanding_Debt +
##      Num_Credit_Card + Delay_from_due_date + Monthly_Inhand_Salary +
##      Credit_History_Age + StudentLoan + Credit_Utilization_Ratio,
##      data = train7)
##
## Coefficients:
##      Credit_MixBad      Credit_MixGood      Interest_Rate
##      -8.096399e-02      -1.932575e+00      -2.651049e-02
##      Num_Bank_Accounts  Changed_Credit_Limit  Amount_invested_monthly
##      -5.736480e-02      1.453519e-02      -6.688334e-04
##      Outstanding_Debt   Num_Credit_Card      Delay_from_due_date
##      -6.406751e-05      3.247787e-02      -3.692095e-03
##      Monthly_Inhand_Salary  Credit_History_Age      StudentLoan
##      3.625681e-05      5.303730e-04      -4.090290e-02
## Credit_Utilization_Ratio
##      5.226134e-03
##
## Intercepts:
##      Good|Poor  Poor|Standard
##      -2.3849611  -0.8899766
##
## Residual Deviance: 23959.97
## AIC: 23989.97
```

8월

```
step(polr(Credit_Score ~1,train8), scope = list(lower~1, upper = ~Age+Occupation+Annual_Income+
Monthly_Inhand_Salary+Num_Bank_Accounts+Num_Credit_Card+Interest_Rate+Num_of_Loan+Delay_from_due_date+Num_of_Delayed_Payment+Changed_Credit_Limit+Num_Credit_Inquiries+Credit_Mix+Outstanding_Debt+Credit_Utilization_Ratio+Credit_History_Age+Total_EMI_per_month+Amount_invested_monthly+Monthly_Balance+AutoLoan+PersonalLoan+HomeEquityLoan+StudentLoan+DebtConsolidationLoan), direction="both")
```

```
## Start: AIC=25416.98
## Credit_Score ~ 1
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train8): design
## appears to be rank-deficient, so dropping some coefs
```

##	Df	AIC
## + Credit_Mix	2	24154
## + Changed_Credit_Limit	1	25211
## + Num_Bank_Accounts	1	25272
## + Interest_Rate	1	25361
## + Num_Credit_Card	1	25366
## + Credit_History_Age	1	25376
## + Amount_invested_monthly	1	25378
## + Delay_from_due_date	1	25383
## + Monthly_Inhand_Salary	1	25385
## + Age	1	25399
## + Num_of_Loan	1	25401
## + Monthly_Balance	1	25406
## + PersonalLoan	1	25408
## + AutoLoan	1	25411
## + Outstanding_Debt	1	25416
## + DebtConsolidationLoan	1	25416
## <none>		25417
## + HomeEquityLoan	1	25417
## + StudentLoan	1	25418
## + Num_of_Delayed_Payment	1	25418
## + Annual_Income	1	25419
## + Num_Credit_Inquiries	1	25419
## + Credit_Utilization_Ratio	1	25419
## + Total_EMI_per_month	1	25419
## + Occupation	14	25437

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train8): design
## appears to be rank-deficient, so dropping some coefs
```

```
##
## Step: AIC=24153.56
## Credit_Score ~ Credit_Mix
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Age, data = train8):  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Occupation, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Annual_Income, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Monthly_Inhand_Salary, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Bank_Accounts, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Credit_Card, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_of_Loan, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Delay_from_due_date, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_of_Delayed_Payment, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Num_Credit_Inquiries, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Outstanding_Debt, : design  
## appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix +  
## Credit_Utilization_Ratio, : design appears to be rank-deficient, so dropping  
## some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Credit_History_Age, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Total_EMI_per_month, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Amount_invested_monthly, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Monthly_Balance, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + AutoLoan, data = train8):  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + PersonalLoan, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + HomeEquityLoan, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + StudentLoan, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + DebtConsolidationLoan, :  
## design appears to be rank-deficient, so dropping some coefs
```


##	Df	AIC
## + Interest_Rate	1	24043
## + Num_Bank_Accounts	1	24124
## + Credit_History_Age	1	24128
## + Monthly_Balance	1	24130
## + Outstanding_Debt	1	24138
## + Changed_Credit_Limit	1	24142
## + Num_of_Loan	1	24143
## + Delay_from_due_date	1	24144
## + Monthly_Inhand_Salary	1	24147
## + Credit_Utilization_Ratio	1	24152
## + StudentLoan	1	24153
## + HomeEquityLoan	1	24153
## <none>		24154
## + Amount_invested_monthly	1	24154
## + Age	1	24155
## + DebtConsolidationLoan	1	24155
## + Num_Credit_Card	1	24155
## + Num_Credit_Inquiries	1	24155
## + PersonalLoan	1	24155
## + Total_EMI_per_month	1	24155
## + Annual_Income	1	24156
## + AutoLoan	1	24156
## + Num_of_Delayed_Payment	1	24156
## + Occupation	14	24174
## - Credit_Mix	2	25417

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
##
## Step: AIC=24043.16
## Credit_Score ~ Credit_Mix + Interest_Rate
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix, data = train8): design
## appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Age, :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Occupation, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Annual_Income, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Monthly_Inhand_Salary, : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Bank_Accounts, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Credit_Card, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_of_Loan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Delay_from_due_date, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_of_Delayed_Payment, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Num_Credit_Inquiries, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Outstanding_Debt, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Credit_Utilization_Ratio, : design appears to be rank-deficient, so dropping  
## some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Credit_History_Age, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Total_EMI_per_month, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Amount_invested_monthly, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Monthly_Balance, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## AutoLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## PersonalLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## HomeEquityLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## StudentLoan, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## DebtConsolidationLoan, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
##  
## + Changed_Credit_Limit      1 24024  
## + Num_Bank_Accounts         1 24024  
## + Monthly_Balance           1 24027  
## + Credit_History_Age        1 24034  
## + Num_Credit_Card           1 24038  
## + Monthly_Inhand_Salary     1 24041  
## + Num_of_Loan               1 24041  
## + Delay_from_due_date       1 24041  
## + Amount_invested_monthly   1 24041  
## + Credit_Utilization_Ratio  1 24042  
## + Outstanding_Debt          1 24042  
## <none>                      24043  
## + StudentLoan               1 24044  
## + PersonalLoan              1 24044  
## + HomeEquityLoan            1 24044  
## + Num_Credit_Inquiries      1 24044  
## + DebtConsolidationLoan     1 24045  
## + Age                       1 24045  
## + Total_EMI_per_month       1 24045  
## + AutoLoan                  1 24045  
## + Annual_Income             1 24045  
## + Num_of_Delayed_Payment    1 24045  
## + Occupation                14 24064  
## - Interest_Rate             1 24154  
## - Credit_Mix                2 25361
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some  
## coefs
```

```
##  
## Step: AIC=24023.69  
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit, :  
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate, data =  
## train8): design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Num_Bank_Accounts		1	24003
## + Credit_History_Age		1	24005
## + Monthly_Balance		1	24006
## + Outstanding_Debt		1	24012
## + Num_of_Loan		1	24018
## + Num_Credit_Card		1	24019
## + Monthly_Inhand_Salary		1	24021
## + Delay_from_due_date		1	24022
## + Amount_invested_monthly		1	24022
## + Credit_Utilization_Ratio		1	24022
## + StudentLoan		1	24024
## <none>			24024
## + HomeEquityLoan		1	24024
## + Num_Credit_Inquiries		1	24025
## + DebtConsolidationLoan		1	24025
## + PersonalLoan		1	24025
## + Age		1	24025
## + Total_EMI_per_month		1	24026
## + Annual_Income		1	24026
## + AutoLoan		1	24026
## + Num_of_Delayed_Payment		1	24026
## - Changed_Credit_Limit		1	24043
## + Occupation		14	24044
## - Interest_Rate		1	24142
## - Credit_Mix		2	25203

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=24003.26
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Num_Bank_Accounts
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts, : design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit, : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```


##		Df	AIC
## + Credit_History_Age		1	23986
## + Monthly_Balance		1	23987
## + Outstanding_Debt		1	23992
## + Num_Credit_Card		1	23996
## + Num_of_Loan		1	23998
## + Amount_invested_monthly		1	24001
## + Monthly_Inhand_Salary		1	24001
## + Credit_Utilization_Ratio		1	24002
## + StudentLoan		1	24003
## + Delay_from_due_date		1	24003
## <none>			24003
## + HomeEquityLoan		1	24004
## + PersonalLoan		1	24004
## + Num_Credit_Inquiries		1	24005
## + DebtConsolidationLoan		1	24005
## + Age		1	24005
## + Total_EMI_per_month		1	24005
## + Annual_Income		1	24005
## + AutoLoan		1	24005
## + Num_of_Delayed_Payment		1	24005
## + Occupation		14	24024
## - Num_Bank_Accounts		1	24024
## - Changed_Credit_Limit		1	24024
## - Interest_Rate		1	24110
## - Credit_Mix		2	25144

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23986.31
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Num_Bank_Accounts + Credit_History_Age
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Monthly_Balance		1	23973
## + Num_Credit_Card		1	23978
## + Outstanding_Debt		1	23982
## + Amount_invested_monthly		1	23984
## + Monthly_Inhand_Salary		1	23985
## + Credit_Utilization_Ratio		1	23985
## + Num_of_Loan		1	23986
## <none>			23986
## + Delay_from_due_date		1	23987
## + PersonalLoan		1	23987
## + StudentLoan		1	23987
## + HomeEquityLoan		1	23987
## + Num_Credit_Inquiries		1	23988
## + AutoLoan		1	23988
## + DebtConsolidationLoan		1	23988
## + Annual_Income		1	23988
## + Total_EMI_per_month		1	23988
## + Age		1	23988
## + Num_of_Delayed_Payment		1	23988
## - Credit_History_Age		1	24003
## - Num_Bank_Accounts		1	24005
## + Occupation		14	24006
## - Changed_Credit_Limit		1	24016
## - Interest_Rate		1	24075
## - Credit_Mix		2	25140

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23973.25
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Num_Bank_Accounts + Credit_History_Age + Monthly_Balance
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Num_Credit_Card		1	23964
## + Outstanding_Debt		1	23969
## + Amount_invested_monthly		1	23972
## + PersonalLoan		1	23973
## <none>			23973
## + Delay_from_due_date		1	23974
## + Monthly_Inhand_Salary		1	23974
## + Credit_Utilization_Ratio		1	23975
## + Num_Credit_Inquiries		1	23975
## + StudentLoan		1	23975
## + AutoLoan		1	23975
## + Num_of_Loan		1	23975
## + HomeEquityLoan		1	23975
## + Annual_Income		1	23975
## + Total_EMI_per_month		1	23975
## + Age		1	23975
## + DebtConsolidationLoan		1	23975
## + Num_of_Delayed_Payment		1	23975
## - Monthly_Balance		1	23986
## - Credit_History_Age		1	23987
## - Num_Bank_Accounts		1	23992
## + Occupation		14	23993
## - Changed_Credit_Limit		1	24003
## - Interest_Rate		1	24058
## - Credit_Mix		2	25141

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23964.27
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Num_Bank_Accounts + Credit_History_Age + Monthly_Balance +
## Num_Credit_Card
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + Outstanding_Debt		1	23959
## + Amount_invested_monthly		1	23963
## + Delay_from_due_date		1	23964
## + PersonalLoan		1	23964
## <none>			23964
## + Monthly_Inhand_Salary		1	23965
## + Credit_Utilization_Ratio		1	23966
## + Num_Credit_Inquiries		1	23966
## + StudentLoan		1	23966
## + Num_of_Loan		1	23966
## + AutoLoan		1	23966
## + HomeEquityLoan		1	23966
## + Annual_Income		1	23966
## + Total_EMI_per_month		1	23966
## + Age		1	23966
## + DebtConsolidationLoan		1	23966
## + Num_of_Delayed_Payment		1	23966
## - Num_Credit_Card		1	23973
## - Monthly_Balance		1	23978
## - Credit_History_Age		1	23979
## + Occupation		14	23984
## - Num_Bank_Accounts		1	23985
## - Changed_Credit_Limit		1	23993
## - Interest_Rate		1	24056
## - Credit_Mix		2	25140

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23959.14
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Num_Bank_Accounts + Credit_History_Age + Monthly_Balance +
## Num_Credit_Card + Outstanding_Debt
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## +	Amount_invested_monthly	1	23958
## +	PersonalLoan	1	23958
## +	Delay_from_due_date	1	23959
##	<none>		23959
## +	Monthly_Inhand_Salary	1	23960
## +	Credit_Utilization_Ratio	1	23960
## +	Num_Credit_Inquiries	1	23960
## +	AutoLoan	1	23961
## +	StudentLoan	1	23961
## +	HomeEquityLoan	1	23961
## +	Annual_Income	1	23961
## +	Num_of_Loan	1	23961
## +	Total_EMI_per_month	1	23961
## +	Age	1	23961
## +	Num_of_Delayed_Payment	1	23961
## +	DebtConsolidationLoan	1	23961
## -	Outstanding_Debt	1	23964
## -	Credit_History_Age	1	23969
## -	Num_Credit_Card	1	23969
## -	Monthly_Balance	1	23972
## +	Occupation	14	23979
## -	Num_Bank_Accounts	1	23980
## -	Changed_Credit_Limit	1	23995
## -	Interest_Rate	1	24040
## -	Credit_Mix	2	25038

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23957.88
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Num_Bank_Accounts + Credit_History_Age + Monthly_Balance +
## Num_Credit_Card + Outstanding_Debt + Amount_invested_monthly
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
## + PersonalLoan		1	23957
## + Delay_from_due_date		1	23958
## <none>			23958
## + Monthly_Inhand_Salary		1	23959
## + Credit_Utilization_Ratio		1	23959
## + Num_Credit_Inquiries		1	23959
## - Amount_invested_monthly		1	23959
## + AutoLoan		1	23959
## + StudentLoan		1	23959
## + HomeEquityLoan		1	23960
## + Num_of_Loan		1	23960
## + Annual_Income		1	23960
## + Total_EMI_per_month		1	23960
## + Age		1	23960
## + Num_of_Delayed_Payment		1	23960
## + DebtConsolidationLoan		1	23960
## - Outstanding_Debt		1	23963
## - Credit_History_Age		1	23968
## - Num_Credit_Card		1	23968
## - Monthly_Balance		1	23969
## + Occupation		14	23978
## - Num_Bank_Accounts		1	23979
## - Changed_Credit_Limit		1	23993
## - Interest_Rate		1	24040
## - Credit_Mix		2	25024

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23957.28
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Num_Bank_Accounts + Credit_History_Age + Monthly_Balance +
## Num_Credit_Card + Outstanding_Debt + Amount_invested_monthly +
## PersonalLoan
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```



```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

##		Df	AIC
##	+ Delay_from_due_date	1	23957
##	<none>		23957
##	- PersonalLoan	1	23958
##	+ Num_of_Loan	1	23958
##	- Amount_invested_monthly	1	23958
##	+ Credit_Utilization_Ratio	1	23959
##	+ Monthly_Inhand_Salary	1	23959
##	+ Num_Credit_Inquiries	1	23959
##	+ AutoLoan	1	23959
##	+ StudentLoan	1	23959
##	+ HomeEquityLoan	1	23959
##	+ Annual_Income	1	23959
##	+ Total_EMI_per_month	1	23959
##	+ Age	1	23959
##	+ Num_of_Delayed_Payment	1	23959
##	+ DebtConsolidationLoan	1	23959
##	- Outstanding_Debt	1	23963
##	- Num_Credit_Card	1	23967
##	- Credit_History_Age	1	23968
##	- Monthly_Balance	1	23969
##	+ Occupation	14	23977
##	- Num_Bank_Accounts	1	23979
##	- Changed_Credit_Limit	1	23993
##	- Interest_Rate	1	24039
##	- Credit_Mix	2	25024

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
##
## Step: AIC=23956.78
## Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
## Num_Bank_Accounts + Credit_History_Age + Monthly_Balance +
## Num_Credit_Card + Outstanding_Debt + Amount_invested_monthly +
## PersonalLoan + Delay_from_due_date
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Changed_Credit_Limit + :
## design appears to be rank-deficient, so dropping some coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Num_Bank_Accounts + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
## coefs
```

```
## Warning in polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate +  
## Changed_Credit_Limit + : design appears to be rank-deficient, so dropping some  
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##		Df	AIC
##	<none>		23957
##	- Delay_from_due_date	1	23957
##	- PersonalLoan	1	23958
##	+ Num_of_Loan	1	23958
##	+ Credit_Utilization_Ratio	1	23958
##	+ Monthly_Inhand_Salary	1	23958
##	- Amount_invested_monthly	1	23958
##	+ Num_Credit_Inquiries	1	23958
##	+ AutoLoan	1	23958
##	+ StudentLoan	1	23958
##	+ HomeEquityLoan	1	23959
##	+ Annual_Income	1	23959
##	+ Total_EMI_per_month	1	23959
##	+ Age	1	23959
##	+ Num_of_Delayed_Payment	1	23959
##	+ DebtConsolidationLoan	1	23959
##	- Outstanding_Debt	1	23962
##	- Credit_History_Age	1	23967
##	- Num_Credit_Card	1	23968
##	- Monthly_Balance	1	23969
##	- Num_Bank_Accounts	1	23976
##	+ Occupation	14	23977
##	- Changed_Credit_Limit	1	23992
##	- Interest_Rate	1	24035
##	- Credit_Mix	2	25026

```
## Call:
## polr(formula = Credit_Score ~ Credit_Mix + Interest_Rate + Changed_Credit_Limit +
##      Num_Bank_Accounts + Credit_History_Age + Monthly_Balance +
##      Num_Credit_Card + Outstanding_Debt + Amount_invested_monthly +
##      PersonalLoan + Delay_from_due_date, data = train8)
##
## Coefficients:
##      Credit_MixBad      Credit_MixGood      Interest_Rate
##      -8.029237e-02      -1.919337e+00      -2.797676e-02
##      Changed_Credit_Limit      Num_Bank_Accounts      Credit_History_Age
##      1.823770e-02      -4.615448e-02      9.013419e-04
##      Monthly_Balance      Num_Credit_Card      Outstanding_Debt
##      3.549925e-04      3.736605e-02      -7.050534e-05
##      Amount_invested_monthly      PersonalLoan      Delay_from_due_date
##      -1.735647e-04      4.532981e-02      -2.544131e-03
##
## Intercepts:
##      Good|Poor      Poor|Standard
##      -2.2254821      -0.7325429
##
## Residual Deviance: 23928.78
## AIC: 23956.78
```