credit129.bkup <- credit129

str(credit129)

summary(credit129)

sapply(credit129, sd)

xtabs(~Account.Balance + Creditability, data = credit129)

credit129$Account.Balance <- factor(credit129$Account.Balance)

logit <- glm(Creditability~ Credit.Amount + Age..years.+ Account.Balance, data = credit129, family = "binomial")

summary(logit)

confint(logit)

library(aod)

wald.test(b = coef(logit), Sigma = vcov(logit), Terms = 4:6)

level <- cbind(0, 0, 0, 0, 1, -1)

wald.test(b = coef(logit), Sigma = vcov(logit), L = level)

exp(coef(logit))

exp(cbind(OR = coef(logit), confint(logit)))

#Predicted Probabilities (1)

credit129.1 <- with(credit129, data.frame(Credit.Amount = mean(Credit.Amount), Age..years. = mean(Age..years.), Account.Balance = factor(1:4)))

credit129.1$Account.Balance <- predict(logit, newdata = credit129.1, type = "response")

credit129.1

#Predicted Probabilities (2) credit amount

credit129.2 <- with(credit129, data.frame(Credit.Amount = rep(seq(from = 250, to = 19000, length.out = 900),4), Age..years. = mean(Age..years.), Account.Balance = factor(rep(1:4, each = 100))))

credit129.2

#Predicted Probabilities (3)

credit129.3 <- cbind(credit129.2, predict(logit, newdata = credit129.2, type = "link", se = TRUE)) # including standard error for CI later

credit129.3 <- within(credit129.3, {

PredictedProb <- plogis(fit)

LL <- plogis(fit - (1.96 \* se.fit))

UL <- plogis(fit + (1.96 \* se.fit))

})

View(credit129.)

#Predicted Probabilities PLOT (4)

library(ggplot2)

ggplot(credit129.3, aes(x = Credit.Amount, y = PredictedProb)) +

geom\_ribbon(aes(ymin = LL, ymax = UL, fill = Account.Balance), alpha = 0.2) + geom\_line(aes(colour = Account.Balance), size = 1)

attach(credit129...A)

credit129...A$Creditability<- factor(credit129...A$Creditability)

log.Credit.Amount <- log(credit129...A$Credit.Amount)

credit129...A<- data.frame(credit129...A, log.Credit.Amount)

credit129...A<-credit129...A[ ,-6]

library(MASS)

credit129...A.lda<-lda(Creditability~., data=credit129...A, prior=c(1,1)/2)

credit129...A.lda

credit129...A.lda.predict<-predict(credit129...A.lda)

.table<-table(credit129...A$Creditability,data=credit129...A.lda.predict$class)

addmargins(.table)

round(addmargins(prop.table(.table,1)\*100,2),2)

ncorrect<-sum(diag(.table))

ntotal<-sum(.table)

cat(ncorrect," correctly allocated out of ",ntotal," (",100\*ncorrect/ntotal,"%)","\n")