library(xlsx)

setwd("~/R Project\_Clothes Manufacturing Outlet")

attributeClotheOrg = read.xlsx('Attribute DataSet.xlsx',header = TRUE,sheetName = 'Sheet1')

head(attributeClotheOrg)

attributeClothe= na.omit(attributeClotheOrg)

model = glm(Recommendation ~ Style + Price + Rating+Size+Season+NeckLine+SleeveLength+waiseline+Material+FabricType+Decoration+Pattern.Type,data = attributeClothe)

summary(model)

y = attributeClothe$Recommendation

result <- predict(model,attributeClothe[,2:13],type = "response")

library(ROCR)

rocrPredic <- prediction(result,y)

rocrPerf <- performance(rocrPredic,"tpr","fpr")

plot(rocrPerf,colorize=TRUE, print.cutoffs.at=seq(0.1,by=0.1))

train\_PredSurvived <- ifelse(result > 0.4,1,0)

table(predicted=train\_PredSurvived,actualdata=y)

#library(caret)

#confusionMatrix(train\_PredSurvived,y)

totalSales = read.csv('Total Sales.csv',header = TRUE)

library(forecast)

matrixTotalSales <- as.matrix(totalSales[,-1])

numericVector <- as.numeric(as.vector(matrixTotalSales))

timeseries <- ts(numericVector, start = 1,frequency = 5)

fit <- auto.arima(timeseries)

summary(fit)

forecast(fit,5)

plot(forecast(fit,5))

indTotalSales <- read.csv("Dress Sales\_Remove Duplicate ID.csv")

indTotalSales[is.na(indTotalSales)] <- 0

head(indTotalSales)

dataIndTotalSales = indTotalSales[,-1]

i = 0

n = nrow(dataIndTotalSales)

tmp = 0

while(i < n) {

matrixIndTotalSales <- as.matrix(dataIndTotalSales[i+1,])

numMatrixIndTotalSales <- as.numeric(as.vector(matrixIndTotalSales))

timeseries <- ts(numMatrixIndTotalSales, start = 1,frequency = 5)

fit <- auto.arima(timeseries)

predictedValue <- as.data.frame(forecast(fit,3))

productwithpredictedvalue <- data.frame(dressid=indTotalSales[i+1,1],forecast1stday=predictedValue$`Point Forecast`[1],

forecast2ndday=predictedValue$`Point Forecast`[2],

forecast3rdday=predictedValue$`Point Forecast`[3])

tmp <- rbind(tmp,productwithpredictedvalue)

i <- i+1

print(tmp)

}

View(tmp)

dressSalesWTotalSales = read.csv('Dress Sales with Total Sales.csv')

attributeClotheOrg = read.csv('Attribute DataSet.csv')

indDressWTotalSales=cbind(attributeClotheOrg, Total.Sales=dressSalesWTotalSales$Total.sales)

head(indDressWTotalSales)

TestForStyle <- aov(Total.Sales ~ Style, data = indDressWTotalSales)

summary(TestForStyle)

TestForSeason <- aov(Total.Sales ~ Season, data = indDressWTotalSales)

summary(TestForSeason)

TestForMaterial <- aov(Total.Sales ~ Material, data = indDressWTotalSales)

summary(TestForMaterial)

lmModel=lm(Total.Sales ~ Style+Season+Material, data = indDressWTotalSales)

summary(lmModel)

comStyPrModel <- lm(Total.Sales ~ Style + Price, data = indDressWTotalSales)

summary(comStyPrModel)

modeluseAll <- lm(Total.Sales~.-Dress\_ID,data = indDressWTotalSales)

summary(modeluseAll)

cor.test(Total.Sales~Rating,data= indDressWTotalSales)