

```
setwd("C:\\Users\\DELL\\Desktop\\DS\\DataScience_2019501097\\Data Mining\\Exam Solutions\\Final exam\\Final exam") getwd() liver = read.csv("Liver_data.csv", header = FALSE, col.names = c("mcv", "alkphos", "sgpt", "sgot", "gammagt", "drinks", "selector")) str(liver)
```

```
liver$selector <- as.factor(liver$selector)
```

```
liver$drinks <- cut(liver$drinks, breaks = c(0, 5, 10, 15, 20), labels = c('C1', 'C2', 'C3', 'C4'), right = FALSE)
```

```
liver <- na.omit(liver)
```

```
train = subset(liver, liver$selector == 1)
```

```
str(train)
```

```
test = subset(liver, liver$selector == 2)
```

```
str(test)
```

```
dim(train) dim(test)
```

```
x_train <- subset(train, select = -c(selector, drinks)) x_test <- subset(test, select = -c(selector, drinks))
```

```
library(class)
```

```
y_train = train[,6, drop = TRUE] y_test = test[,6, drop = TRUE]
```

```
length(train)
```

```
length(test)
```

```
fit1 = knn(x_train, x_train, y_train, k=1)
```

```
1-sum(y_test==fit1)/length(y_test)
```

```
fit2 = knn(x_train, x_train, y_train, k=2) 1-sum(y_test==fit2)/length(y_test)
```

```
fit3 = knn(x_train, x_train, y_train, k=3) 1-sum(y_test==fit3)/length(y_test)
```