

Jeyanth AV

18M17CS033

3a) BuffTail  $\leftarrow c(10, 1, 37, 5, 12)$ GardenBee  $\leftarrow c(8, 3, 9, 6, 4)$ RedTail  $\leftarrow c(18, 9, 12, 4, 6)$ CarderBee  $\leftarrow c(8, 27, 6, 32, 23)$ HoneyBee  $\leftarrow c(12, 13, 16, 9, 10)$ 

$$M \leftarrow \text{matrix}(\text{nrow} = 5, \text{ncol} = 5, \text{byrow} = T, \\ \text{data} = c(\text{BuffTail}, \text{GardenBee}, \text{RedTail}, \\ \text{CarderBee}, \text{HoneyBee}))$$

M

$$\text{rownames}(M) \leftarrow c(\text{"Thistle"}, \text{"Vipers"}, \\ \text{"Golden"}, \text{"Rain"}, \text{"Yell"})$$

M

3b)

$$l1 = c(7, 8, 9)$$

$$l2 = c(\text{"bob"}, \text{"jack"})$$

$$l3 = c(5.76, 9.01, 23)$$

$$l4 = \text{list}(l1, l2, l3)$$

names(14) = c("Integer", "String",  
"Real Number")

14

4.) getwd()

setwd("/home/jay/downloads")

bk <- read.csv("knn-Modelling.csv")

bk

nrow(bk)

colnames(bk)

class(bk)

str(bk)

bk\$estimatedsalary

min(bk\$estimatedsalary)

max(bk\$estimatedsalary)

income\_group <- vector(mode = "character",  
length = length(bk\$estimated  
salary))

income\_group

income\_group[bk\$estimatedsalary < 1000]

< "Low"

income\_group

```
income_group [ bk$estimated salary >= 1000 &  
                bk$estimated salary < 10000 ] <-  
                "middle"
```

```
income_group [ bk$estimated salary > 10000 ] <-  
                "High"
```

```
income_group
```

```
spender <- factor (income_group, levels = c("Low", "middle", "High"),  
                  ordered = TRUE)
```

```
spender
```

```
bk <- cbind(bk, spender)
```

```
bk
```

```
write.csv (bk, 'exportdata.csv',  
           row.names = FALSE)
```