

3a) 1. Create a matrix from the data that is given.

2. Make a list using the plant names from above as an object to include in the list along with the original data.

3a) 1. BuffTail $\leftarrow c(10, 1, 37, 5, 12)$

GrardenBee $\leftarrow c(8, 3, 9, 6, 4)$

RedTail $\leftarrow c(1, 8, 9, 12, 4)$

CardenBee $\leftarrow c(8, 27, 6, 32, 33)$

HoneyBee $\leftarrow c(12, 13, 16, 9, 10)$

Bees $\leftarrow matrix(data = c(BuffTail,$

GrardenBee, RedTail, CardenBee,

HoneyBee), byrow = TRUE, nrow = 5,

ncol = 5)

rownames(Bees) $\leftarrow c("Thistle", "$

Vipers", "Golden Rain", "Yell",

"Hippo")

3a 2) i) List of bees ← List (BuffTail,
GardenBee, RedTail, CarderBee, HoneyBee)

ii) names (List of bees) ← c ("Thistle",
"Vipers", "Golden Rain", "Yell", "Hippo")

iii) List of bees \$ Thistle

iv) List of bees \$ Vipers

v) List of bees \$ Golden Rain

vi) List of bees \$ Yell

vii) List of bees \$ Hippo

3b) Create a List using numeric, string
and double data type and name

serial_number ← c(1, 2, 3, 4, 5)
class (serial_number)
name ← c ("Krishanth", "Karam", "Suraj",
"Uday", "Adithya")

class (name)

marks ← c (45.80, 60.90, 12.80, 98.97,
34.90)

typeof (marks)


```
list_of_students <- list(serial_number,
                           name, marks)
```

```
names(list_of_students) <- c("Serial
Number", "Name", "Marks")
```

4) Import "Churn - Modelling . csv" and classify the estimated income as "Low", "Medium", "High". Combine the factor with the original dataset & export the file

Ans:- i) `churn <- read.csv("Churn - Modelling . csv")`

ii) `ncol(churn)`

iii) `salary_group <- vector(mode = "character",`

`length = length(churn$EstimatedSalary))`

iv) `salary_group[churn$EstimatedSalary < 10000] <- "Low"`

v) `salary_group[churn$EstimatedSalary`

`>= 10000 & churn$EstimatedSalary`

`< 100000] <- "Medium"`

vi) `salary_group[churn$EstimatedSalary`

2100000] < "High"

vii) salary ~ factor < factor (salary ~ group,
levels = c("Low", "Medium", "High"),
ordered = TRUE)

viii) churn < cbind(churn, salary ~ factor)

ix) write.csv(churn, file = "output.csv",
row.names = TRUE).