

CT5102: Programing for Data Analytics 2018/19

Assignment 2: Writing a robust function

Write a function **my_table()** in R that will perform a frequency count on string data in a vector. The function should form validation checks (for NA values, and non-character input). Sample output is shown below.

Test #1

```
> set.seed(111)

> v <- 1:10
[1] 1 2 3 4 5 6 7 8 9 10

> my_table(v)
Error in my_table(v) : Error, input must be a character vector
```

Test #2

```
> set.seed(111)

> v <- sample(c('M','F'),10,prob = c(.3,.7),replace = T)
[1] "F" "M" "F" "F" "F" "F" "F" "F" "F" "F"

> v <- c(v,NA)
[1] "F" "M" "F" "F" "F" "F" "F" "F" "F" "F" NA

> my_table(v)
Error in my_table(v) : Error, the input vector has NA element(s)
```

Test #3

```
> set.seed(111)

> v <- sample(c('M','F'),10,prob = c(.3,.7),replace = T)
[1] "F" "M" "F" "F" "F" "F" "F" "F" "F" "F"

> v <- c(v,NA)
[1] "F" "M" "F" "F" "F" "F" "F" "F" "F" "F" NA

> my_table(v,na.rm=T)
F M
9 1
```

Test #4

```
> set.seed(111)

> v <- sample(c('M','F'),10,prob = c(.3,.7),replace = T)
[1] "F" "M" "F" "F" "F" "F" "F" "F" "F" "F"

> my_table(v)
F M
9 1
```