Functions

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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.

my\_table <- function(s, na.rm=F) {  
 if(!is.character(s)) {  
 stop("Error, input must be a character vector")  
 }  
 if(sum(is.na(s)) > 0) {  
 if(na.rm == T) {  
 s <- s[!is.na(s)]   
 } else {  
 stop("Error, the input vector has NA element(s)")  
 }  
 }  
   
 freq\_s <- c()  
 unique\_s <- s[!duplicated(s)]  
 for (i in 1:length(unique\_s)) {  
 freq\_s[i] <- length(s[s==unique\_s[i]])  
 }  
 names(freq\_s) <- unique\_s  
 freq\_s  
}  
  
# Test 1  
set.seed(111)  
v <- 1:10  
#my\_table(v)

# Test 2  
set.seed(111)  
v <- sample(c('M','F'),10,prob = c(.3,.7),replace = T)  
v <- c(v,NA)  
#my\_table(v)

#Test 3  
set.seed(111)  
v <- sample(c('M','F'),10,prob = c(.3,.7),replace = T)  
v <- c(v,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)  
my\_table(v)

## F M   
## 9 1