Data531-Lab-3

Dhun Sheth

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```
analyzeData <- function(v)
{
  print(v)
  print(paste("The first value is: ",v[1], " The last value is: ", v[length(v)]))
  print(paste("Mean: ",mean(v), " Median: ", median(v), " Variance: ", var(v), " Stdv: ", sd(v)))

  return (c(mean(v),median(v),var(v),sd(v)))

}

vec <- sample(1:10,10)
a <- analyzeData(sort(vec))
```

```
##  [1]  1  2  3  4  5  6  7  8  9 10
## [1] "The first value is:  1  The last value is:  10"
## [1] "Mean:  5.5  Median:  5.5  Variance:  9.16666666666667  Stdv:  3.02765035409749"
```

```
if (a[1]>a[2]){
  print("Mean is larger than median")
}else if (a[1]==a[2]){
  print("Mean is equal to the median")
}else {
  print("Mean NOT larger than median")
}
```

```
## [1] "Mean is equal to the median"
```

```
for (i in seq(1:3)){
  vec <- sample(1:10, 10, replace=TRUE)
  analyzeData(vec)
}
```

```
##  [1] 10  3  7  6  7  2  6 10 10  7
## [1] "The first value is:  10  The last value is:  7"
## [1] "Mean:  6.8  Median:  7  Variance:  7.73333333333333  Stdv:  2.78088714861523"
##  [1]  7  9  6 10  2  4 10  3  6  8
## [1] "The first value is:  7  The last value is:  8"
## [1] "Mean:  6.5  Median:  6.5  Variance:  8.05555555555556  Stdv:  2.83823106098773"
##  [1]  1  6  1  8  5  8 10  2  8  7
## [1] "The first value is:  1  The last value is:  7"
## [1] "Mean:  5.6  Median:  6.5  Variance:  10.4888888888889  Stdv:  3.23865541373097"
```