Hands on 1 - Day 2

Statistics

1. Try the following commands in order to make a vector with the values and compute various sample statistics:

```
dry <- c(77, 93, 92, 68, 88, 75, 100)
dry
sum(dry)
length(dry)
mean(dry)
sum(dry)/length(dry)
## Checking
sort(dry)
median(dry)
sd(dry)
var(dry)
sd(dry)^2
sum((dry-mean(dry))^2) / (length(dry)-1) ## Checking
min(dry)
max(dry)
summary(dry)
```

2. **Load the titanic data set and perform exploratory statistical analysis on the following column – Age.**
   a. **Find the mean age**
   b. **Find the range of the ages**
   c. **Plot a histogram for the age column**
   d. **Create a box plot – are there any outliers?**

3.Use the file Cherry.csv and perform the following statistical analysis.

   e. **Find the mean of the volume, Girth and height**
   f. **Plot a histogram to understand the distribution of volume**
   g. **Create a box plot for the volume column – are there any outliers?**
   h. **Find the variance and standard deviation of Volume, Girth and Height.**

User Functions:

1. **Create a function that accepts a vector of numbers and returns the total sum of the numbers. Test this by passing a vector consisting of a sequence starting with 5 and ending with 100 and increments of 5**

2. Create a function that accepts a vector of radii and returns a vector with the volume of the spheres of the given radius. Formula for volume = 4/3*pi*r**3