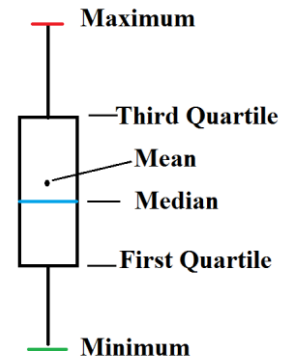


## Box Plots Creation in R

The Box plots are used to plot the statistical values in a simple way. The box plot draws a rectangle that represents first and third quartiles and with a vertical line that shows the median value of each rectangular box.

The upper quartiles and lower quartiles are shown as horizontal lines either side of the rectangle. The mean values is indicated by a point



In R, it's quite easy to create box plots. Here is the data used for box plots creation-

	A	B	C	D	E	F	G	H	I	J
1	Variety-1	Variety-2	Variety-3	Variety-4	Variety-5	Variety-6	Variety-7	Variety-8	Variety-9	Variety-10
2	84.47	87.95	97.38	87.58	85.07	85.41	83.57	87.29	87.04	66.92
3	54.03	54.28	68.49	57.01	51.63	53.25	55.01	56.15	55.49	35.58
4	38.59	31.72	49.74	39.94	32.29	33.82	32.22	42.12	40.51	23.79
5	26.29	19.01	35.79	28.61	21.12	21.85	18.86	31.10	30.89	15.00
6	12.92	8.75	18.20	17.64	10.24	10.17	7.77	17.74	18.66	7.37
7	5.52	4.01	7.12	9.52	4.22	4.85	3.21	9.60	9.59	4.44
8	2.28	2.99	3.22	3.50	2.04	1.79	2.41	2.88	3.26	2.16
9	2.10	3.19	3.21	2.03	0.70	1.40	2.70	1.90	2.04	1.30

Data for mean values-

	A	B	C	D	E	F	G	H	I	J
1	28.2759	26.4878	35.39372	30.7284	25.91499	26.56707	25.71681	31.0959	30.93542	22.64777

Box plots program for R-

#Read your data taht is savd in .csv formate and create a dataframe-

```
Dataframe = read.csv("Water_Varietywise.csv",header=T)
```

#Read Mean value of the above csv using a different file that is shown as *mean.csv* here-

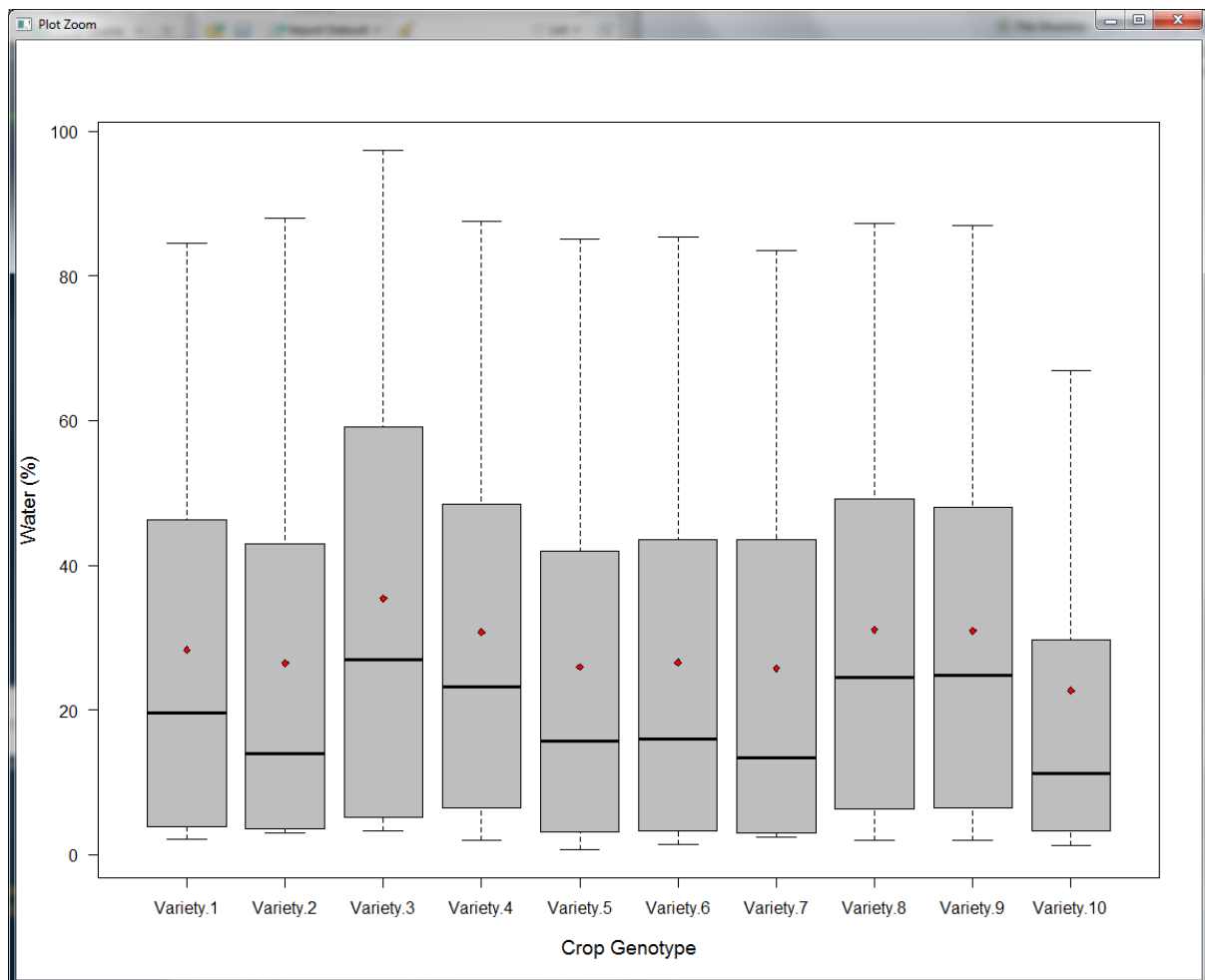
```
means = read.csv("mean.csv",header=F)
```

#Using Boxplot function, we can create boxplots for our data. In the Ylab, y axis label is given as *water (%)* and in y axis label *Crop Genotype* is given-

```
boxplot(Dataframe, ylab = "Water (%)", xlab = "Crop Genotype", las = 1.5, font.lab=3,  
cex.lab=1.2, col = c("grey"))
```

```
#This line shows how point will look like in our plot-  
points(1:10, means, pch = 23, cex = 0.75, bg = "red")
```

### Box plot in R-



Using above steps, you can create box plots for your statistical data, cheers.

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