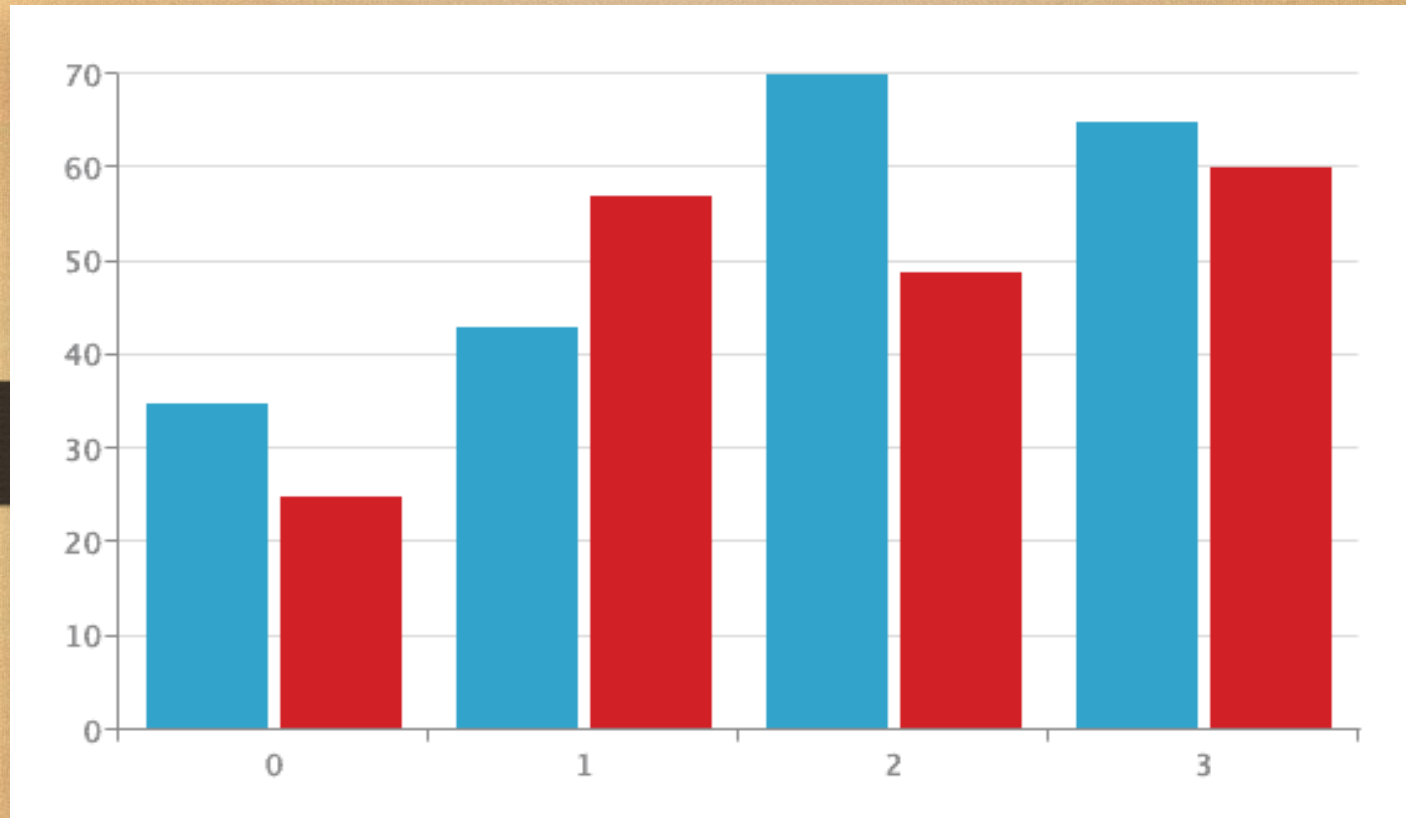


BAR CHARTS



Presented by –

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INTRODUCTION:

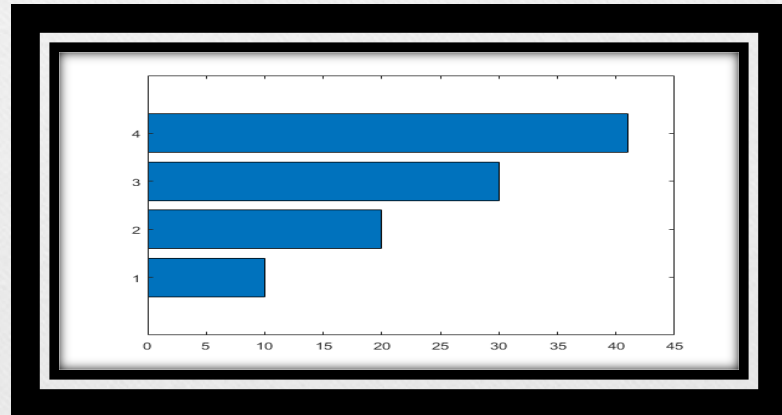
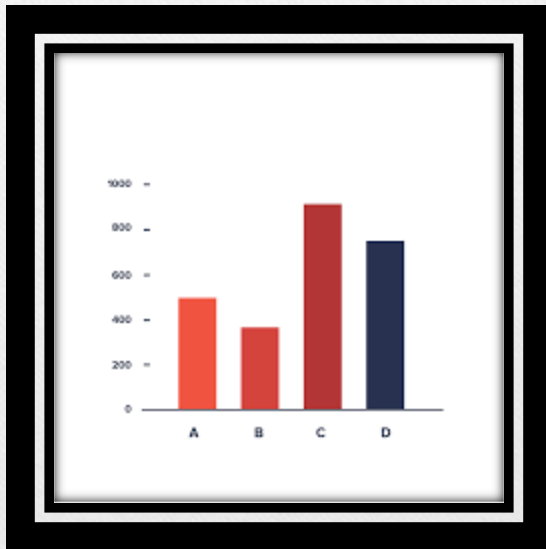
***A bar chart or bar graph is a chart or graph that presents categorical data with rectangular bars with heights or lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally. A vertical bar chart is sometimes called a column chart.**

*** Bar Charts are widely used because they convey information in a readily understood fashion. It shows data that falls into discrete categories.**

TYPES OF BARCHARTS

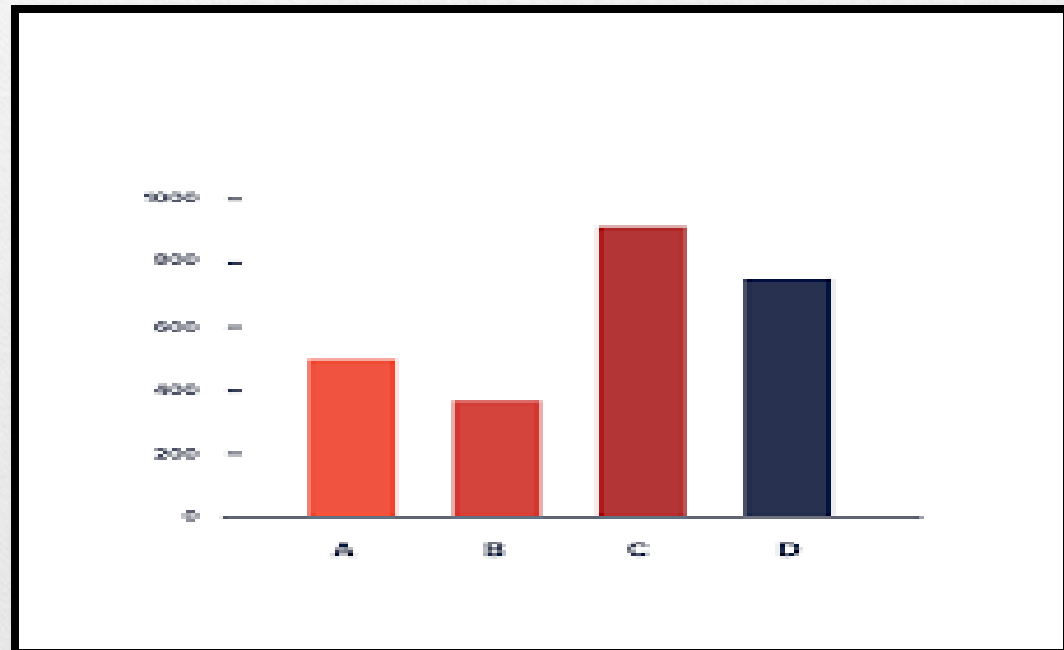
THERE ARE TWO TYPES OF BARCHARTS :

- **VERTICAL BAR CHART**
- **HORIZONTAL BAR CHART**



VERTICAL BAR CHART:

A graph that visually displays data using vertical bars going up from the bottom, whose lengths are proportional to quantities they represent. It can be used when one axis cannot have a numerical scale.



THERE ARE FURTHER MORE TYPES OF VERTICAL BAR CHARTS:

- 1. VERTICAL STACKED BAR CHART**
- 2. GROUPED VERTICAL BAR CHART**
- 3. SEGMENTED VERTICAL BAR CHART**

VERTICAL STACKED BAR CHART:

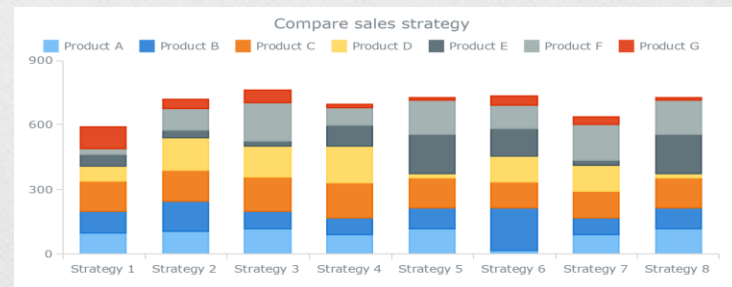
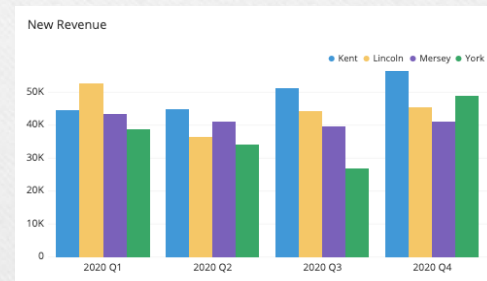
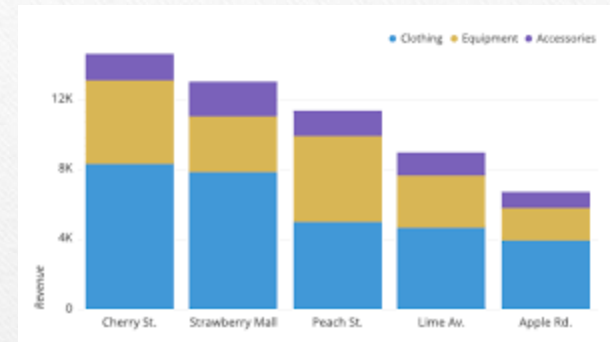
Use a vertical stacked bar chart when you want to view information for one dimension within another dimension.

. GROUPED VERTICAL BAR CHART:

A grouped bar chart is a type of bar graph that is used to represent and compare different categories of two or more groups.

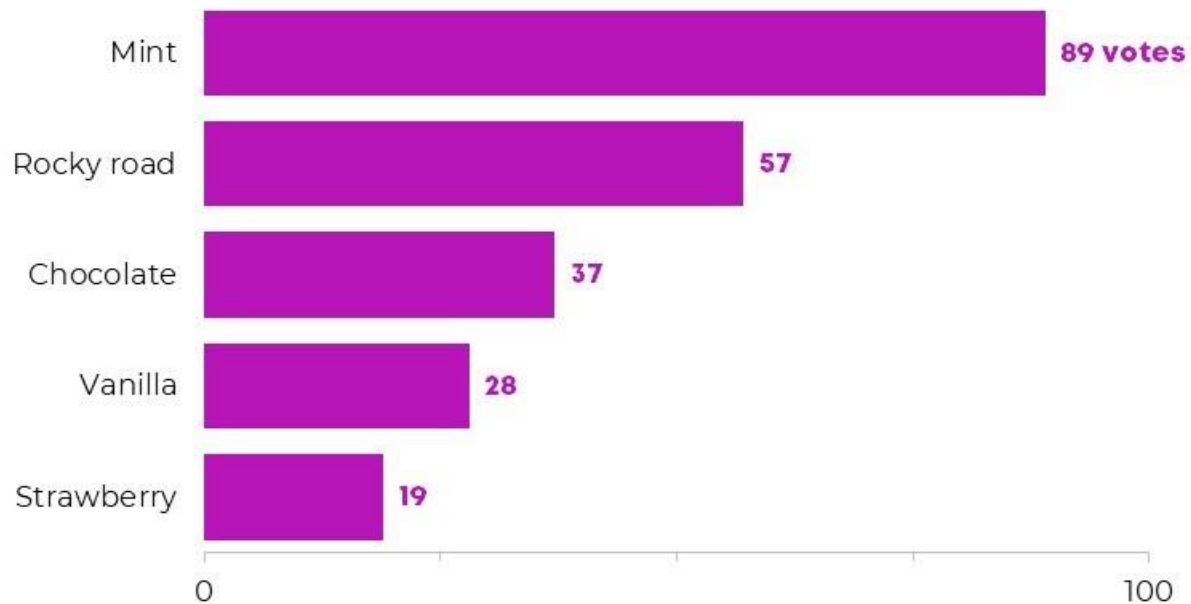
SEGMENTED VERTICAL BAR CHART:

The stacked bar chart has become quite popular; it is used for grouping or categorizing the parts of a whole.



HORIZONTAL BAR CHARTS:

Horizontal bar graphs represent the data **horizontally**. It is a **graph** whose **bars** are drawn **horizontally**. The data categories are shown on the vertical axis and the data values are shown on the **horizontal** axis.

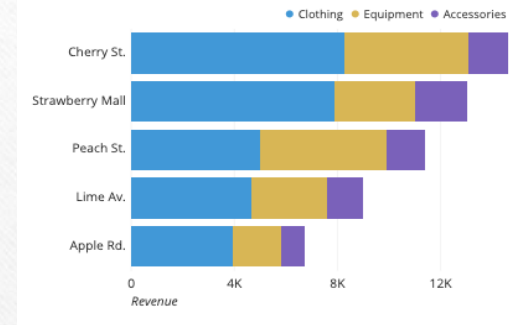


HERE ARE SOME TYPES OF HORIZONTAL BAR CHARTS:

1. HORIZONTAL STACKED BAR CHART
2. HORIZONTAL GROUPED BAR CHART
3. SEGMENTED HORIZONTAL BAR CHART

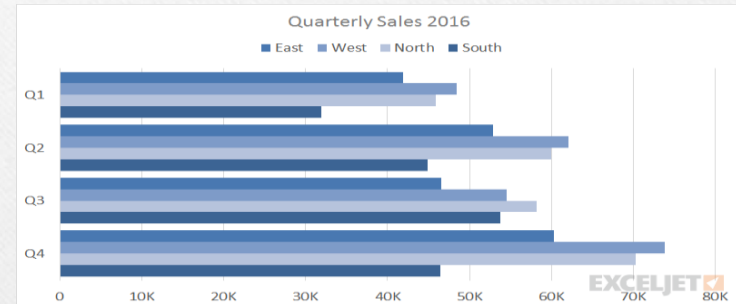
1. HORIZONTAL STACKED BAR CHART:

Horizontal bar graphs represent the data horizontally. It is a graph whose bars are drawn horizontally.



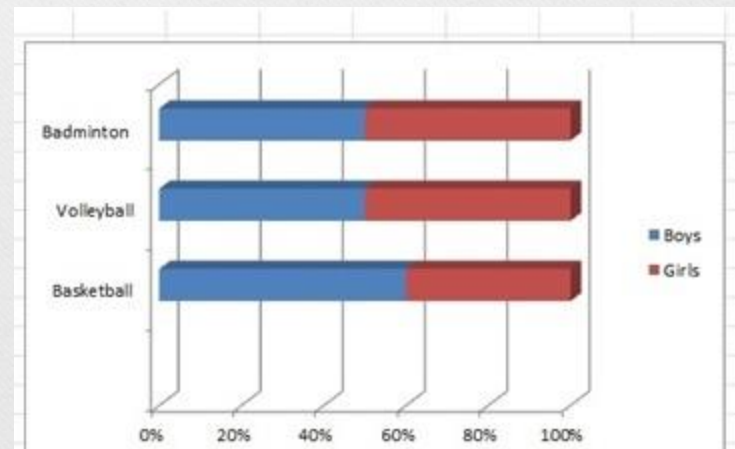
2. HORIZONTAL GROUPED BAR CHART:

It is a graph whose bars are drawn horizontally. The data categories are shown on the vertical axis and the data values are shown on the horizontal axis.



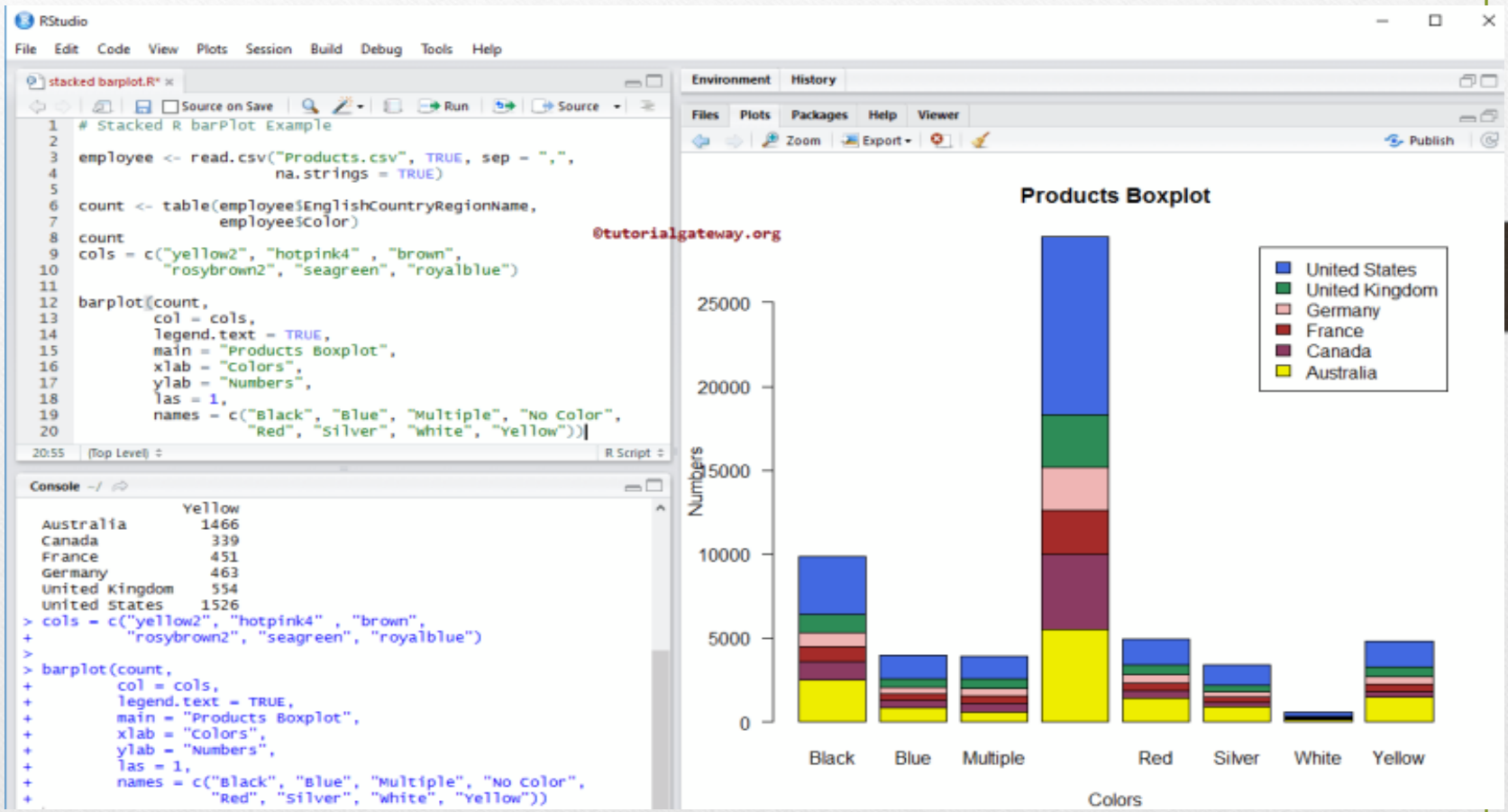
SEGMENTED HORIZONTAL BAR CHART:

A segmented Bar chart is one kind of stacked bar chart, but each bar will show 100% of the discrete value.



How to make a bar chart in “R” SOFTWARE?

-> R uses the function `barplot()` to create bar charts . R can draw both vertical and horizontal bars in the bar chart.



EXAMPLE 1:

Consider a matrix as follows:

Garden <-c(47,19,50,46,9,4)

Hedgerow<-c(10,3,0,16,3,0)

Parkland<-c(40,5,10,8,0,6)

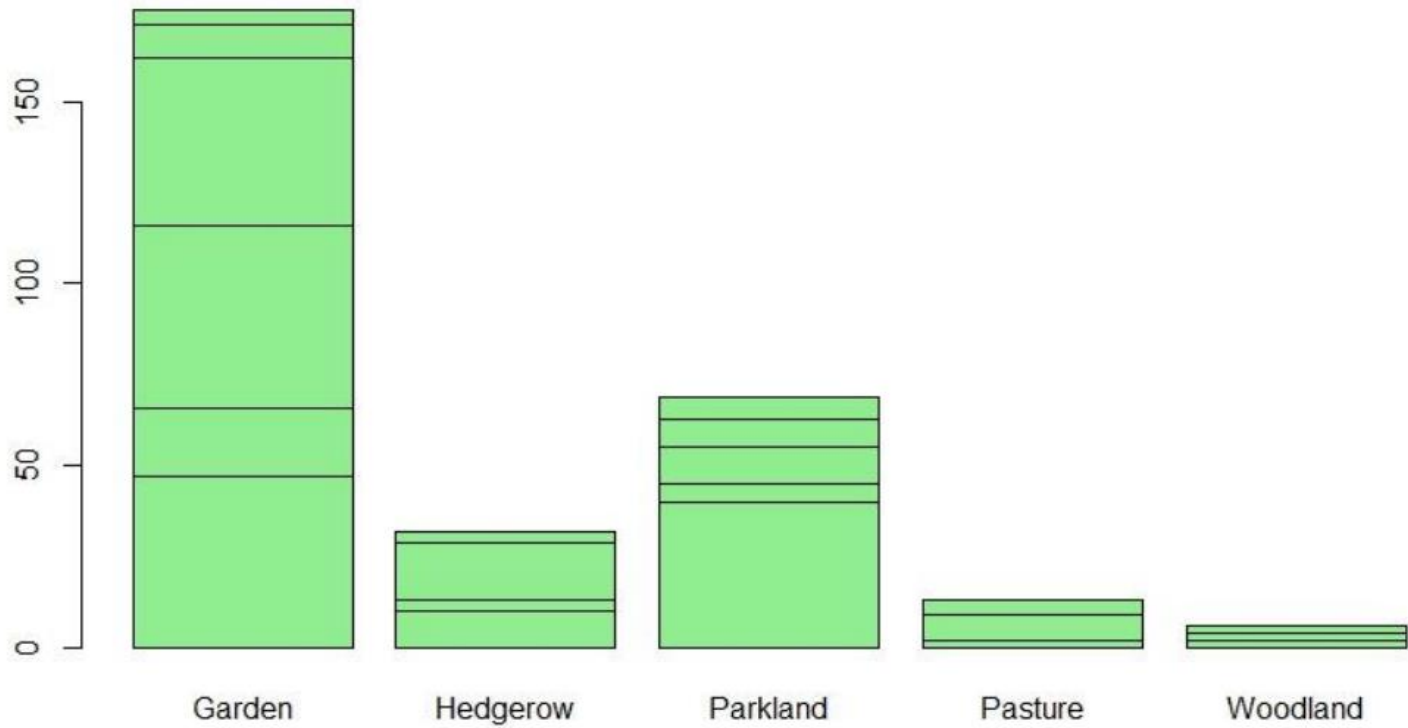
Pasture<-c(2,0,7,4,0,0)

Woodland<-c(2,2,0,0,2,0)

m<-cbind(Garden, Hedgerow, Parkland, Pasture, Woodland)

[1,]	47	10	40	2	2
[2,]	19	3	5	0	2 [3,
]	50	0	10	7	0
[4,]	46	16	8	4	0
[5,]	9	3	0	0	2
[6,]	4	0	6	0	0

BARPLOT (M,COL='LIGHTGREEN')



EXAMPLE 2 :

Data is given in a vector form:

```
rain<-c(3,5,7,5,3,2,6,8,5,6,9,8)
```

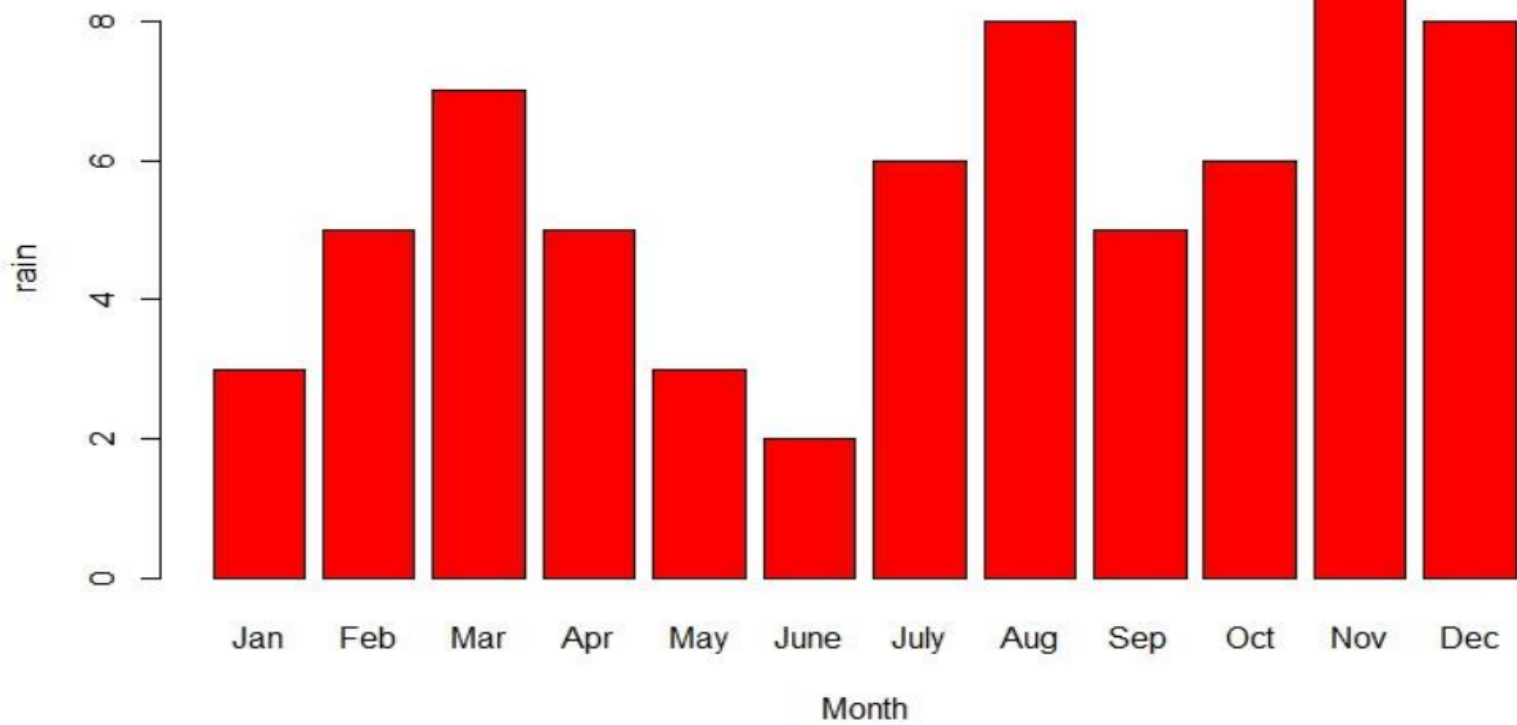
```
rain
```

```
[1] 3 5 7 5 3 2 6 8 5 6 9 8
```

```
barplot(rain)
```

```
month<-c("Jan", "Feb", "Mar", "Apr", "May", "June", "July", "Aug", "Sep",  
"Oct", "Nov", "Dec")
```

```
barplot(rain, names=month, xlab='Month', ylab='rain', col='red')
```



* T.H.A.N.K. Y.O.U *
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