Intro to Statistics and Computation with Data

Anurag (bmat2508@isibang.ac.in)

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Marks breakdown for this course:

- Homework: 5
- Quiz: 15
- Midterm: 20
- Worksheet: 10
- Final: 50

Basic Syntax

```
#Creating a list of numbers
scores=c(21,23,34,54,12)
scores
```

```
## [1] 21 23 34 54 12
```

```
mean(scores)
```

```
## [1] 28.8
```

```
x=1:100
x[x>10|x<90]
```

```
##   [1]   1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16  17  18
##  [19]  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36
##  [37]  37  38  39  40  41  42  43  44  45  46  47  48  49  50  51  52  53  54
##  [55]  55  56  57  58  59  60  61  62  63  64  65  66  67  68  69  70  71  72
##  [73]  73  74  75  76  77  78  79  80  81  82  83  84  85  86  87  88  89  90
##  [91]  91  92  93  94  95  96  97  98  99 100
```

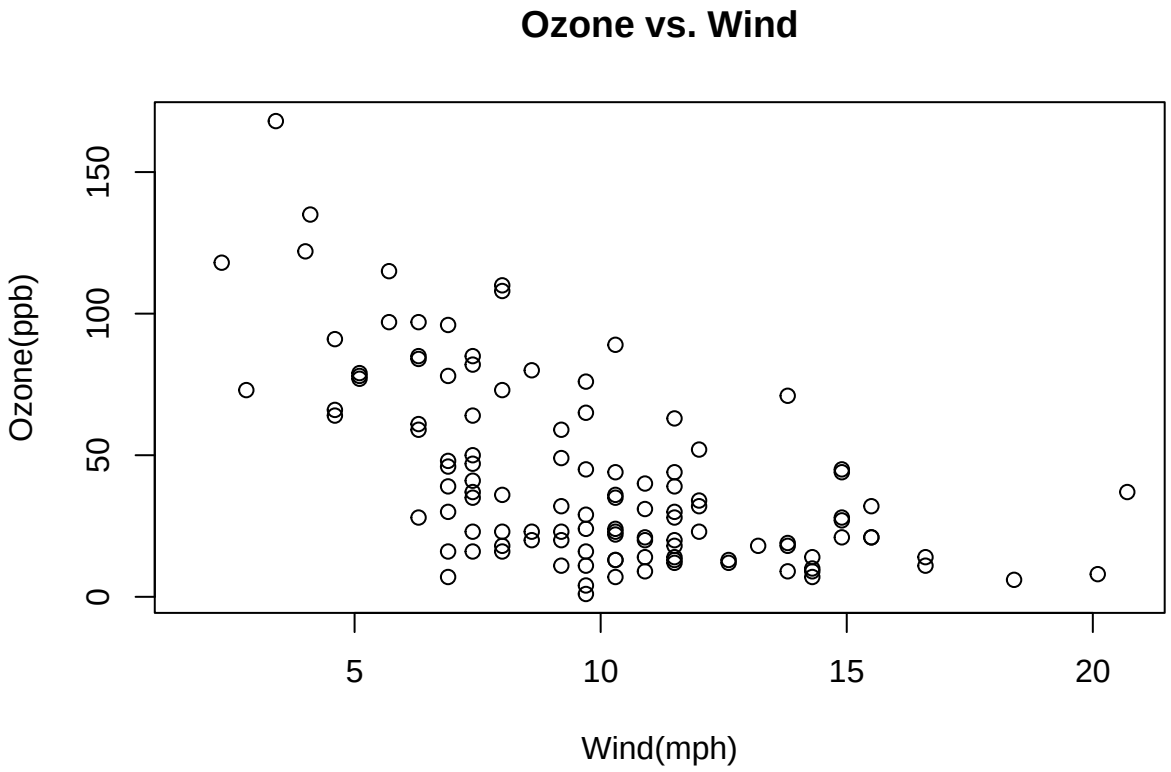
There are many pre-installed datasets in R.

```
#Air quality data of New York City
head(airquality,9)
```

```
##   Ozone Solar.R Wind Temp Month Day
## 1    41     190  7.4   67     5   1
## 2    36     118  8.0   72     5   2
## 3    12     149 12.6   74     5   3
## 4    18     313 11.5   62     5   4
## 5    NA      NA 14.3   56     5   5
## 6    28      NA 14.9   66     5   6
## 7    23     299  8.6   65     5   7
## 8    19      99 13.8   59     5   8
## 9     8      19 20.1   61     5   9
```

Here's how we can plot graphs based on given data:

```
#Scatter plot of Ozone versus Wind
plot(airquality$Wind, airquality$Ozone,main="Ozone vs. Wind",xlab="Wind(mph)",ylab="Ozone(ppb)")
```




```
#What happens when you try to plot the whole dataset?
plot(airquality)
```