Vectors

1) Vectors are one of the most important data structures in R.

2) Vectors are one dimensional array that can store homogeneous (same data type) data.

3) Vectors are created using combine function **c()**

Creating vector

In [1]:
```
v1 <- c(1,2,3,4)
```

In [2]:
```
v1
```

1 2 3 4

In [3]:
```
v2 <- c('A','B','C')
```

In [4]:
```
v2
```

'A' 'B' 'C'

Checking class of the above vectors

In [5]:
```
class(v1)
```

'numeric'

In [6]:
```
class(v2)
```

'character'

Since vector can store only homogeneous data, R will convert the other elements in the array to force everything to be of the same data type.

In [7]:
```
v3 <- c(1,2,TRUE,FALSE)
```

In [8]:
```
v3
```

1 2 1 0

In [9]:
```
class(v3)
```

'numeric'

In [10]:
```
v4 <- c(4,5,'Hello','World')
```

In [11]:
```
v4
```

'4' '5' 'Hello' 'World'

In [12]:
```
class(v4)
```

'character'

In [13]:
```
v5 <- c(TRUE,FALSE,'Hello','World')
```

In [14]:
```
v5
```

'TRUE' 'FALSE' 'Hello' 'World'

In [15]:
```
class(v5)
```

'character'

Vector Names

Name function **name()** is used to assign names to each elements of a vector

In [16]:
```
marks <- c(75,81,69,86)
```

In [17]:
```
names(marks) <- c('Math','Science','English','GK')
```

In [18]:
```
marks
```

Math	75
Science	81
English	69
GK	86

Creating a sequence vector using

In [19]:
```
1:10
```

1 2 3 4 5 6 7 8 9 10

In [27]:
```
v <- 5:10
```

In [28]:
```
v
```

5 6 7 8 9 10