01 Basic R for Finance

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R Basic

Matrix

We can create matrix from one atomic vector.

```
x_vec <- c(9, 4, 6, 20, 19, 29)
x_mat <- matrix(data = x_vec, nrow = 2, ncol = 3, byrow = TRUE)
x_mat
```

```
##      [,1] [,2] [,3]
## [1,]    9    4    6
## [2,]   20   19   29
```

```
cor(x_mat)
```

```
##      [,1] [,2] [,3]
## [1,]    1    1    1
## [2,]    1    1    1
## [3,]    1    1    1
```

We can also create matrix from 2 vectors.

```
y_vec = rnorm(6, 23, 98)

matrix_yx <- cbind(x_vec, y_vec)
matrix_yx
```

```
##      x_vec     y_vec
## [1,]     9 146.17211
## [2,]     4 -64.33708
## [3,]     6 110.61228
## [4,]    20  94.54053
## [5,]    19  34.60247
## [6,]    29  69.91260
```

```r
cor(matrix_yx)
```

```
##           x_vec     y_vec
## x_vec 1.0000000 0.1729291
## y_vec 0.1729291 1.0000000
```