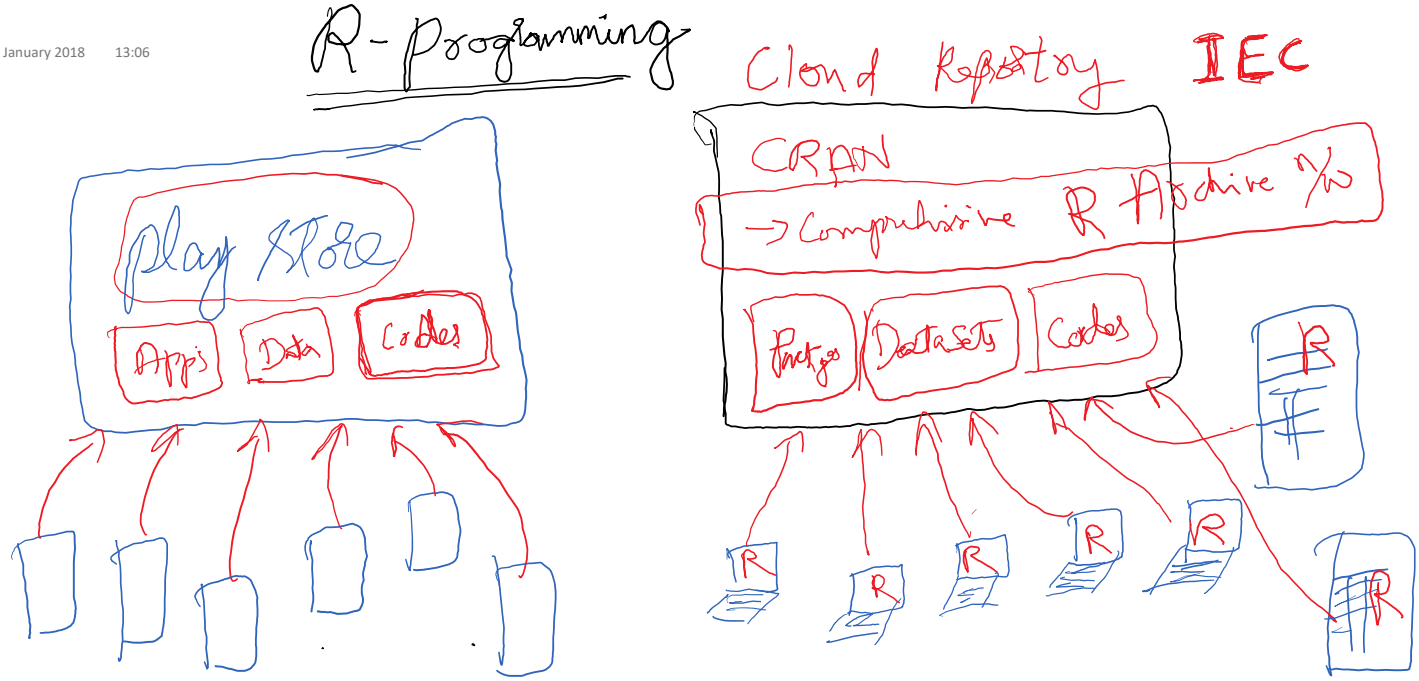
17 January 2018 13:06

R-Programming



→ Mi-Ui
→ Cyanogen
→ Oxygen

Ui
Anda

IDE
R-Studio
Base
CRAN
R

IDE → R-Studio

Script	Console
Environment	plot

→ Datatypes

→ Logical → TRUE & FALSE → T & F → 1 & 0

→ Integer → whole numbers

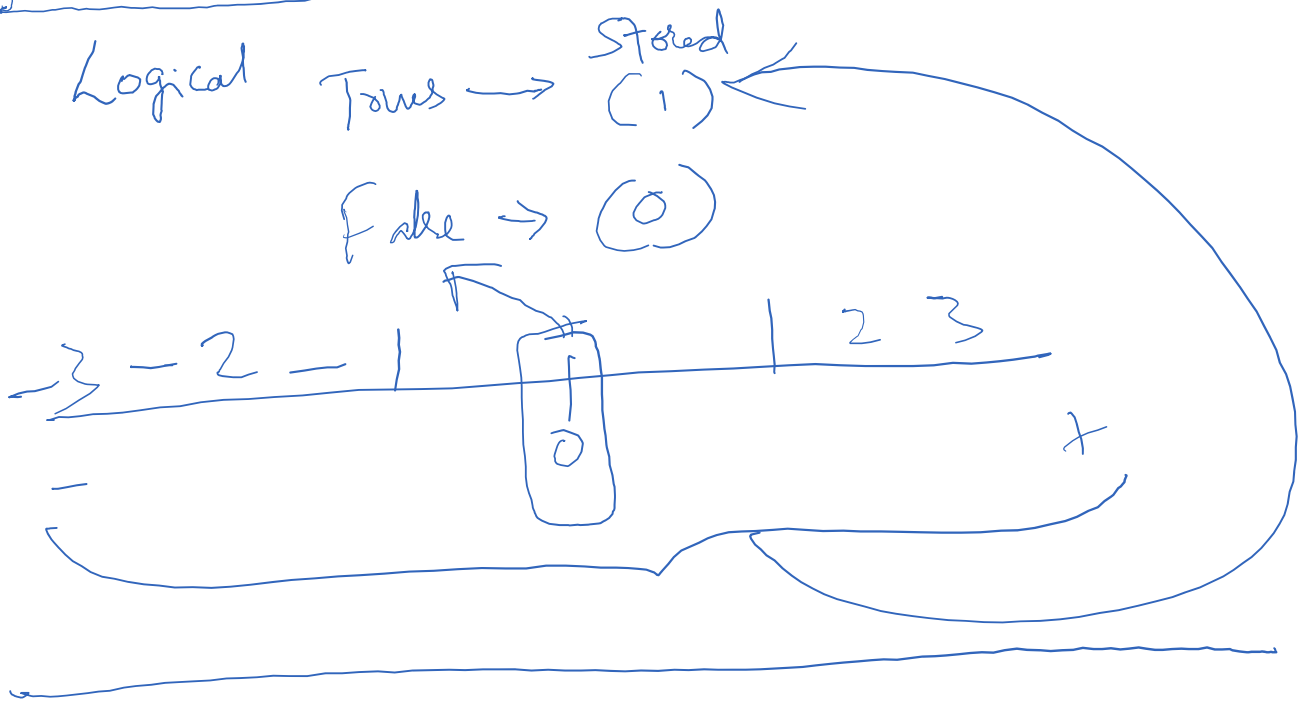
Presidence

→ Integer → whole numbers
→ Numeric → Decimals
→ Character → Alphabets.

Precedence ↓

→ Factor
→ Complex
→ Date

Logical
True → Stored (1)
False → (0)



Data structures

	1D	2D	3D
→	Vectors.	Matrix	Array x
	List	Dataframe	

Vector.
[1] 78 79 80 81
↓
Index

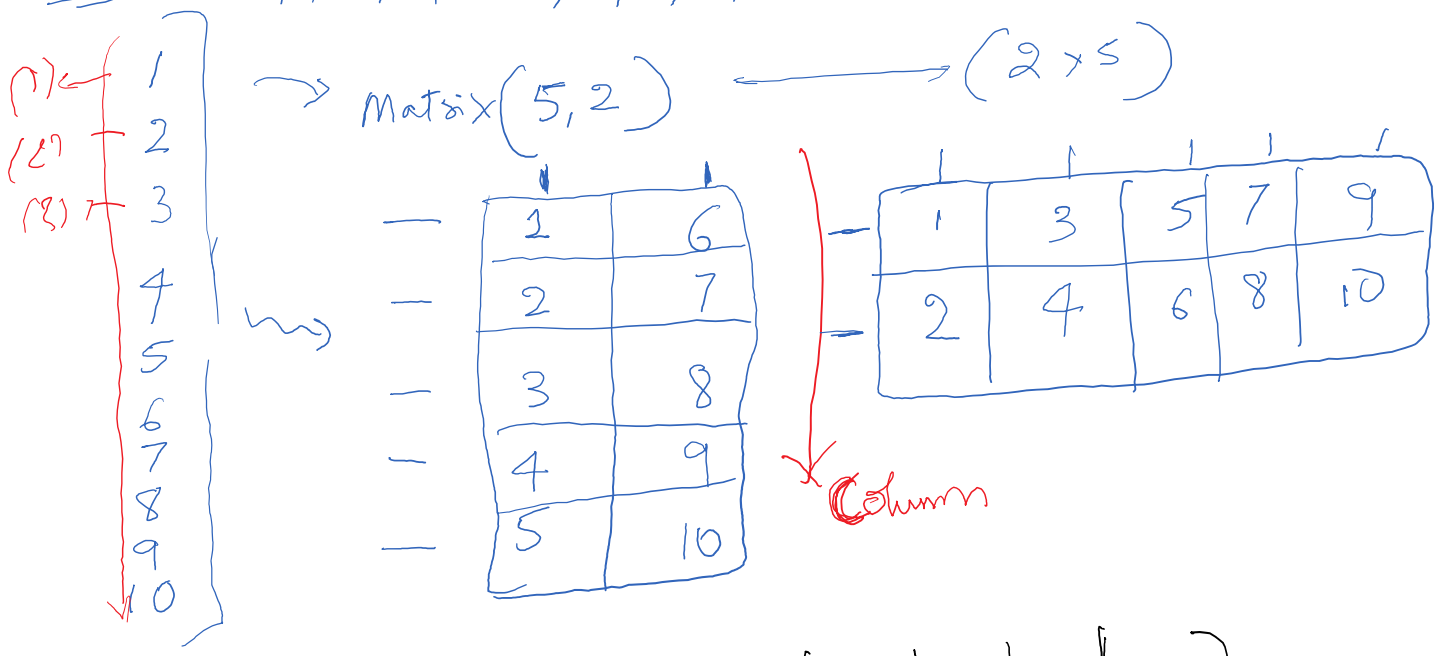
[1] 78
[2] 79
[3] 80
[4] 81
[5] 82
Column

See

Internal

Matrix

1, 2, 3, 4, 5, 6, 7, 8, 9, 10



1) Print your name

2) Add 460.3 & 1.00

3) Create vector "A" with elements 1, 2, TRUE, INDIA, 6.34

4) From 'A' pick out India

5) —— " —— 2 to India

6) —— " —— All elements except 'TRUE'

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

M

M[1,1] - 1

M[4,4] - 19

M[3] - 11

M[,3] -

M[3,] -

M[row, col] → Access elements in Matrix

Good practice: 2D → [R, C]

M[1] → 1D — Not good practice

Create

2	4	6	8	10
12	14	16	18	20

Access → 18

Add Rows

Add Columns.

12	14	16	18	20

Add rows
Add Columns
Find Dimension

⇒ Replace 16 with "INDIA"

---

2 4 6 8 10

12 14 "India" 18 20

"2" "4" "6" "8" "10"

or

"12" "14" India "18" "20"

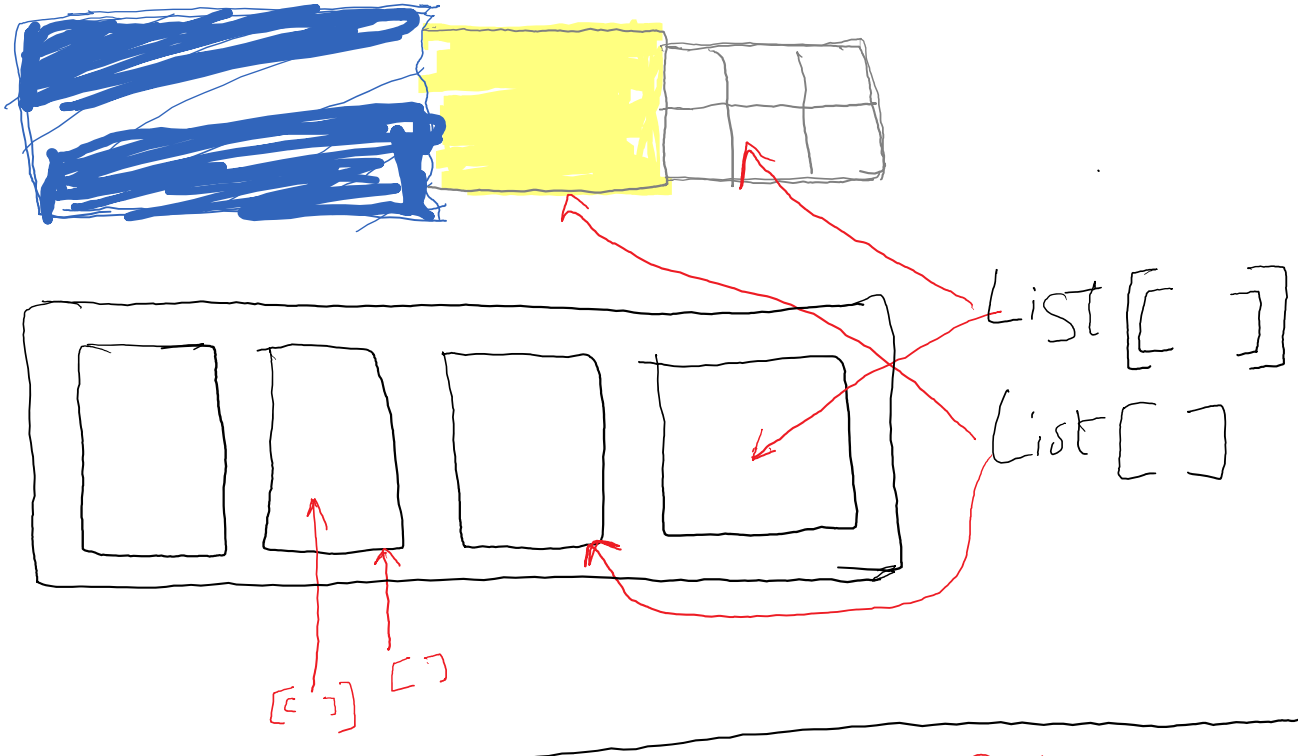
$$\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} \begin{bmatrix} 5 & 6 \\ 7 & 8 \end{bmatrix} \Rightarrow \begin{bmatrix} 1 & 2 & 5 & 6 \\ 3 & 4 & 7 & 8 \end{bmatrix}$$

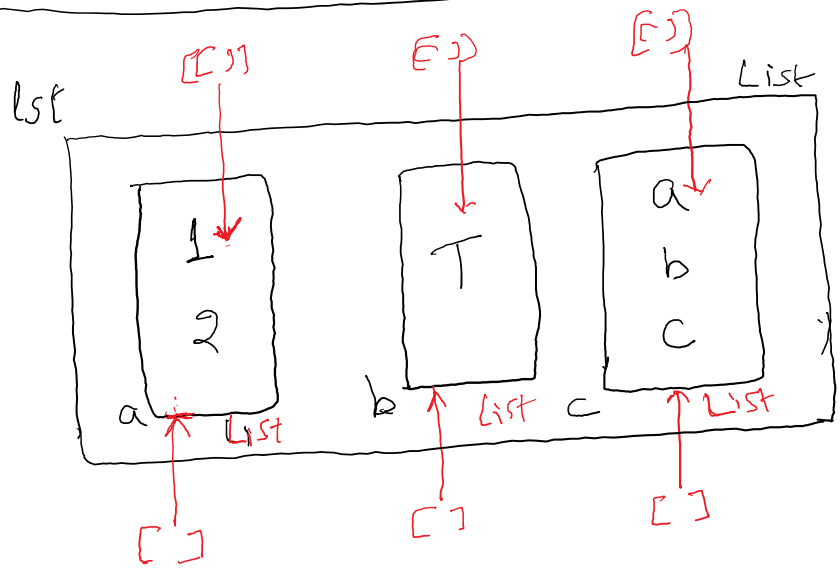
or

$$\begin{bmatrix} 12 \\ 34 \end{bmatrix} \begin{bmatrix} 56 \\ 78 \end{bmatrix}$$

Add → $\begin{bmatrix} 6 & 8 \\ 10 & 12 \end{bmatrix}$

List





list → a = TRUE, False

b = 1, 2, 3, 4

c = 3.14, 2.17, 9.99, 3.33, 6.41, 100

d = "India", "is", "my", "Country"

Display

[1] [2]

[1] [1]
1 2 3 4

[4]
9.99

[1]
9.99

India is Country

[1]
2.14, 9.99, 3.33