

16/8/21

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Expt-2: Implementation of vector and  
list data objects operations.

a) Create vector and list with following  
classes of objects:

character

numeric

integer

complex

logical

b) Create vector and list using Combine  
and Sequence functions

Aim: Implementation of vector & list data objects operations.

a) create a vector and list with following classes of objects: character, numeric, integer, complex, logical.

```
> x = c('a', 'b', 'c')
```

```
> x
```

```
[1] "a" "b" "c"
```

```
> x = c(1, 2, 3)
```

```
> x
```

```
[1] 1 2 3
```

```
> class(x)
```

```
[1] "numeric"
```

```
> x = c(2L, 3L)
```

```
> class(x)
```

```
[1] "integer"
```

```
> x = c(2+3i, 4+5i)
```

```
> class(x)
```

```
[1] "complex"
```

$x = c(TRUE, FALSE)$

$\rightarrow \text{class}(x)$

$[1] \text{ "logical"}$

$x = \text{list}("xyz", 2+3i, TRUE, 2L, 10.0)$

$\rightarrow \text{class}(x)$

$[1] \text{ "list"}$

b) create vector and list using  
combine & sequence functions.

$x = c(1, 2, 3)$

$y = c(4, 5, 6)$

$z = c(x, y)$

$\rightarrow z$

$[1] \ 1 \ 2 \ 3 \ 4 \ 5 \ 6$

$l_1 = \text{list}("xyz", 123, 12L)$

$l_2 = \text{list}(1:5, 223, "Hi")$

$l_3 = c(l_1, l_2)$

$\rightarrow l_3$

$[1]$

$[1] \text{ "xyz"}$

$[5]$

$[1] \ 223$

$[2]$

$[1] \ 123$

$[6]$

$[1] \text{ "Hi"}$

$[3]$

$[1] \ 12$

$[4]$

$[1] \ 12345$