

Various Types of array :-

① 1-D → linear array.

Declaration :-

type variable - name[size];

→ ~~will be contained~~

Initialization :- After declaration,

its elements must be initialized. Otherwise, they will contain 'garbage value'.

stages of initializations :-

a) compile-time :-

type array . name [size] =
(list of values);

b) Run type time → example -

```
-----  
-----  
for (i=0; i < 100; i = i+1)  
{  
    if i < 50  
        sum[i] = 0.0;  
    else  
        sum[i] = 1.0;  
}
```

② 2-D array :->

Declaration :->

type array-name [row-size]
[column-size];

	Column 0 ↓ [0][0]	Column 1 ↓ [0][1]	Column 2 ↓ [0][2]
Row 0 ->	310	275	365
	[1][0]	[1][1]	[1][2]
Row 1	10	190	325
	[2][0]	[2][1]	[2][2]
Row 2 -	405	205	240
	[3][0]	[3][1]	[3][2]
Row 3 ->	310	275	365



Initialization

```
int table[2][3] = {0, 0, 0, 1, 1, 1};
```

initializes the elements of 1st row to zero & 2nd row to 1.

→ done row by row.

③ Multi-dimension array - C allows arrays of 3 or more dimensions.

General form:-

```
type array name[s1][s2]  
[s3]...[sm];
```

Ex →

```
int survey[3][5][12];
```