

Array List:

+ If you don't know the size of the array. Let java

handle the size by using ArrayList.

## Syntax:

ArrayList  $\langle \underbrace{(\text{datatype})}_{\text{name}} \rangle = \text{new ArrayList} \langle \rangle ();$

Here you should not write int we should write  
(generic)

Rapour class (Integer).

\* To add value to ArrayList

```
name.add(value);
```

4 to print ArrayList.

So ut (name),

\* When you set initial capacity in () while declaring.

But you can also add more.

+ 70 check whether the value is in arraylist.

name, contains (value); // return true or false.

+ to change specific value at particular index use,

name.set (index, value);



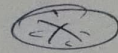
→ To remove the value from ArrayList:

name.remove(index);

→ To fetch item or value from specific index use

name.get(index);

and you should not use ~~name[index];~~



Note:

→ Size of the ArrayList is fixed internally.

→ ArrayList creates another arraylist of size double the old list and copy the array

list so that when the first arraylist is filled by 50% and old arraylist will be deleted.

Eg:- [1, 2, 9, , ]  $\Rightarrow$  [1, 2, 9, , , , , ]  
(80% full) (Doubles the size and stores)

⊗ → Even if it double the array and store the time complexity is still  $O(1)$

Multi Dimensional Array List:

Syntax:

ArrayList < ArrayList < (datatype) > > name ArrayList < > ();

Initializing Array List;

1. name.add(new ArrayList < > ());