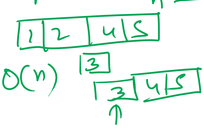
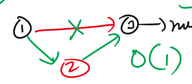
Collections Framework : → Package java.util

① ArrayList & LinkedList are [I2]

* Has a built-in array
* Good for search operations.



* Has a built-in linked list
* Good for insert operations



They only accept Wrapper Classes.
Primitive not allowed!

* Mutable ✓
  StringBuffer & StringBuilder
* Immutable
  String Class

* Which one of these two is more efficient. Illustrate by giving a practical example.

[Builder is more efficient for larger manipulations. Takes less time.]

[In C++ → auto]

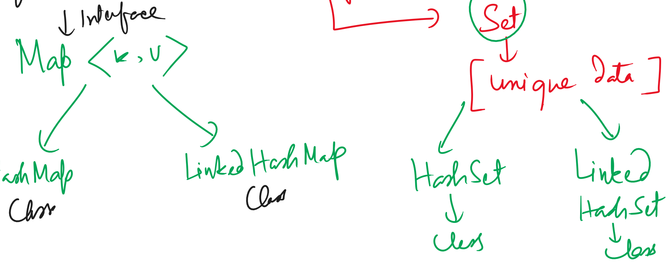
Iterator : It is an interface in Java used to traverse over all the data structures in the Collections Framework. iterator(); hasNext();

* Write a Java program to remove items from a collection using the Iterator Interface based on certain given conditions.

[12, 2, 9, 13, 11, 4, 6]
ArrayList

① remove num < 10
② remove num > 10

* Write a Java Program to remove Duplicates from a collection (ArrayList).

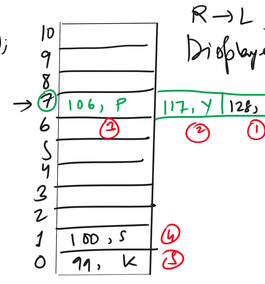


(0.75) HashTable <K, V> → java.util
Initial Load Factor: (75%)
↳ (Array of Lists)
↳ Initial size is (11)

106 % 11 =
117 % 11 =
Hash Collision

T → B
R → L
Displayed

```
Hashtable <Integer, String> ht = new HashTable<>();
ht.put(106, "Pramath");
ht.put(117, "Yathin");
ht.put(128, "Vishakh");
ht.put(100, "Sagar");
ht.put(99, "Kamal");
```



[Priority Queue → Heaps]
[Degree]