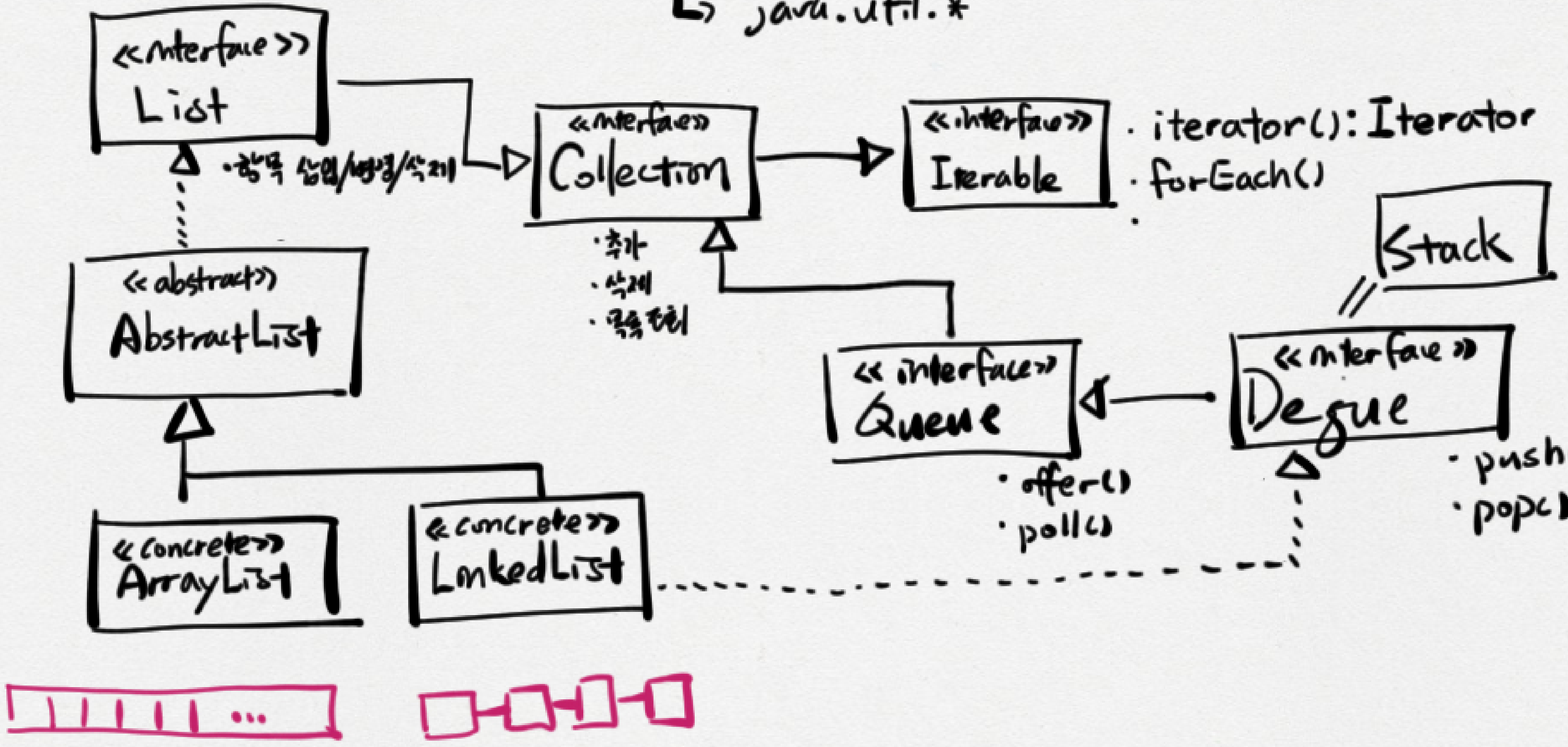
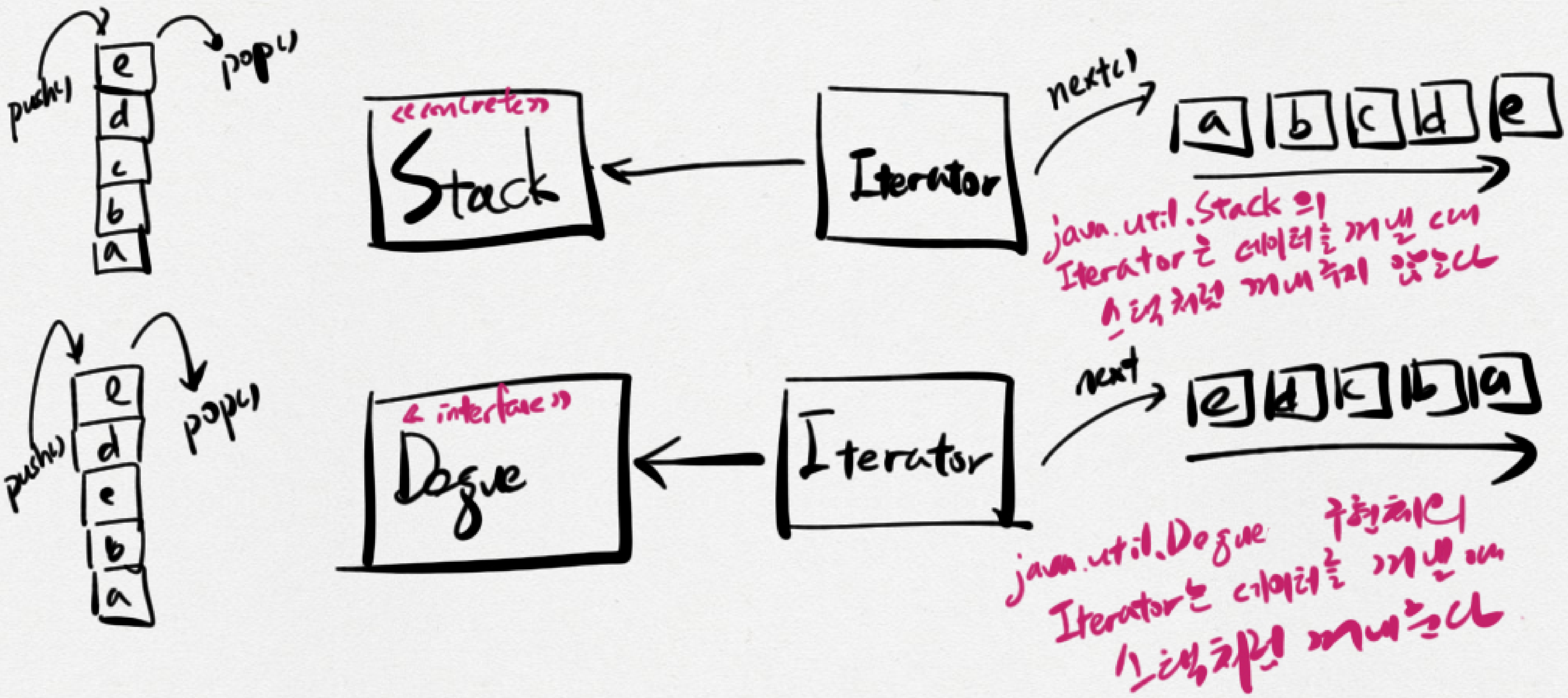
* Collection Framework
└> Collection API
└> java.util.*

[2021-2-17]



* Stack vs Deque



java.util.Stack 의
Iterator는 데이터를 꺼낼 때
스택처럼 꺼내주지 않는다

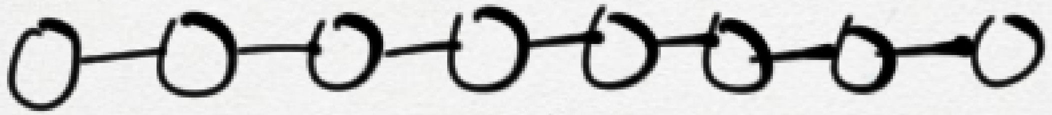
java.util.Deque 구현체의
Iterator는 데이터를 꺼낼때
스택처럼 꺼내준다

* List , Set , Map

	List(v)	Set(v)	Map(k,v)	
데이터 중복	O	X	key : X , value : O	
순서	O	X	X	
저장위치	인덱스	해시값	해시값	
			HashMap	Hashtable
null	O	O	O	X

* HashSet

List

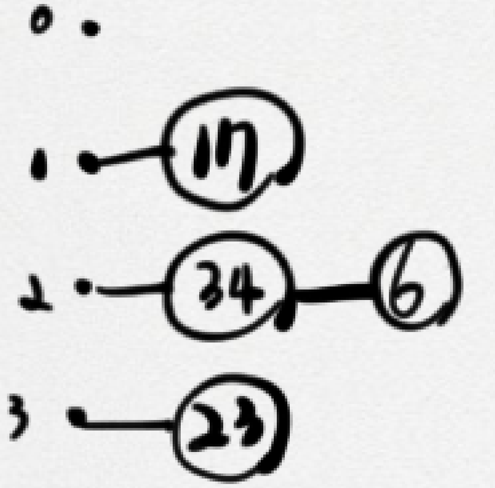


← linear

↳ 순서대로 저장

index

HashSet



← 값의 식별번호를 가지고 위치 결정

⇓

Hash Value

↓

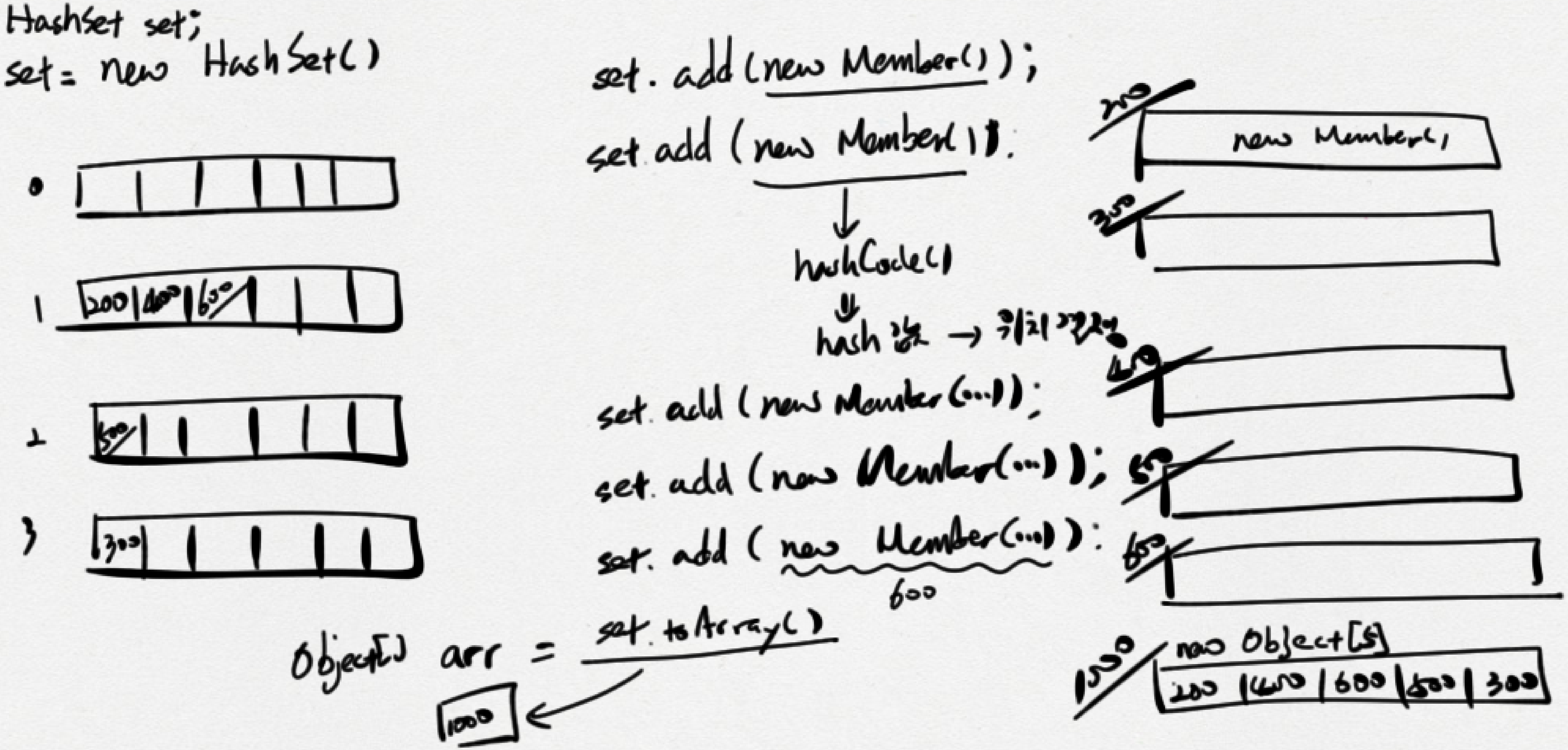
자바에서는 hashCode() 의 리턴 값

* HashMap

"501"	100	200
"502"	101	600
"503"	102	400
"504"	103	500

200	"홍길동"	20
300	"임꺽정"	30
400	"유관순"	16
500	"안중근	20
600	"[illegible]	30

* HashSet



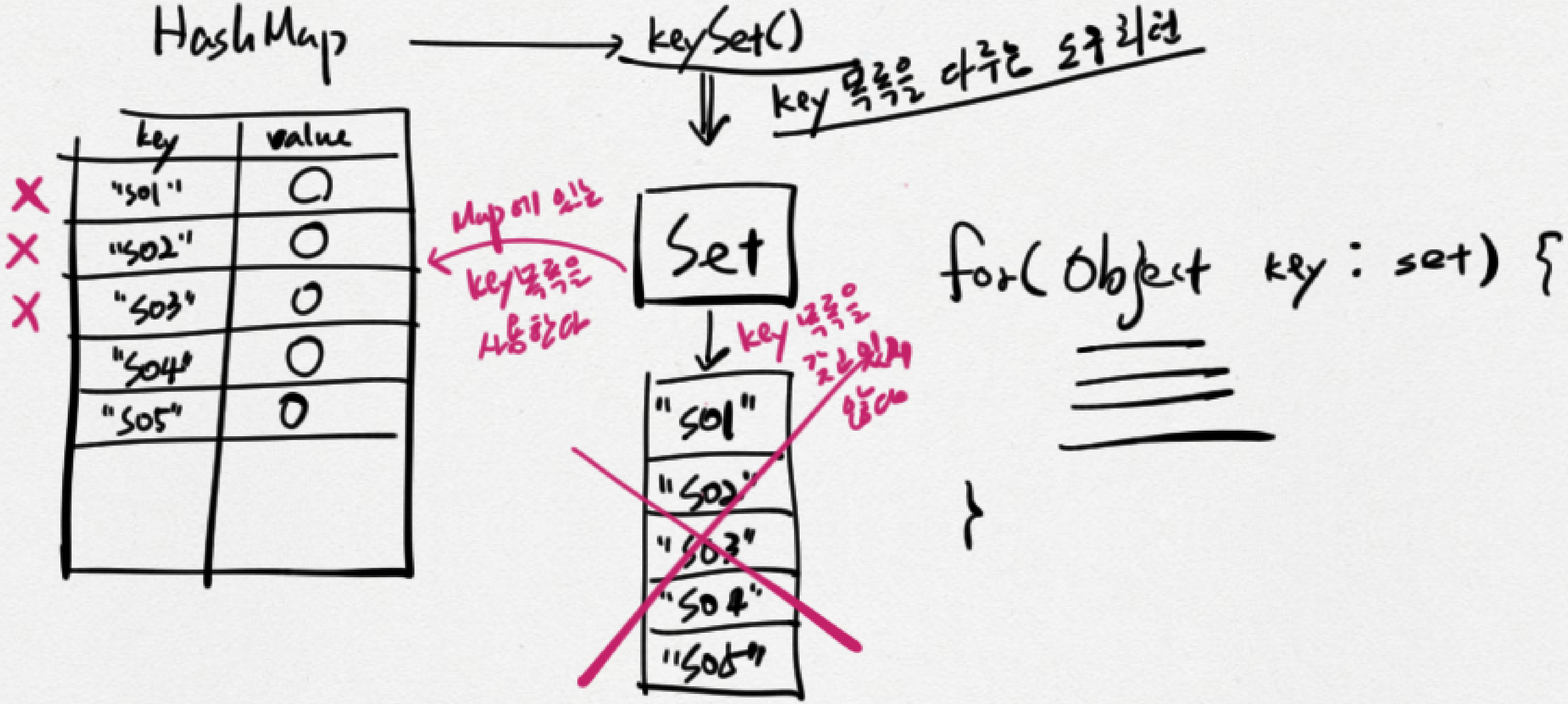
```
HashSet set;
set = new HashSet()

set.add(new Member());
set.add(new Member());

set.add(new Member(...));
set.add(new Member(...));
set.add(new Member(...));

Object[] arr = set.toArray()
```

* HashMap 의 key 목록



key	value
"s01"	O
"s02"	O
"s03"	O
"s04"	O
"s05"	O

"s01"
"s02"
"s03"
"s04"
"s05"

```
for(Object key : set) {

}
```