# HASH SET

@thriverashish (ASHISH GUPTA)

Set < String > mySet = new HashSet < String >();
       Integer or etc

Hashset internally uses HashMap.

Value          (Key, (Value))

↳ it stores unique values and no Duplicates

mySet.add ("Ashish")                    Stored as Key in
                                          HashMap.

Private transient HashMap <(E), Object> map ;
                              ↑
                          generic
                                    Always be of Object type.

Private static final Object PRESENT = new Object();

                    Stored against each and
                    every key.

                    treated as Value in Hashset.

mySet.add (" thriverashish")

Key in HM          thriver   PRESENT
but                ashish
treated as Value
in HS              hash      null
                   code.

Important

```java
public boolean add(E e) {
    return map.put(e, PRESENT) == null;
}
```

1st time:
map.put("Ashish", "Gupta");
→ null

2nd time
map.put("Ashish", "G");

return

Gupta

| Ashish | Gupta |
|--------|-------|
| hash | null |

| Ashish | G |
|--------|---|
| hash | null |
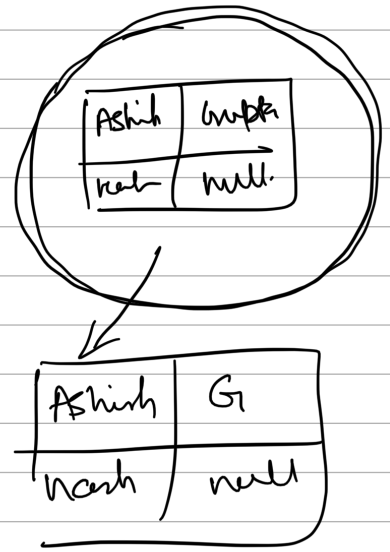
```java
public boolean contains(Object o) {
    return map.containsKey(o);
}
```

@thriverashish
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