

How HashMap works internally

```
-----  
HashMap hm = new HashMap();  
hm.put("A",1);  
-> key1.hashCode();  
65 % 16 = 1 [Bucket Index]
```

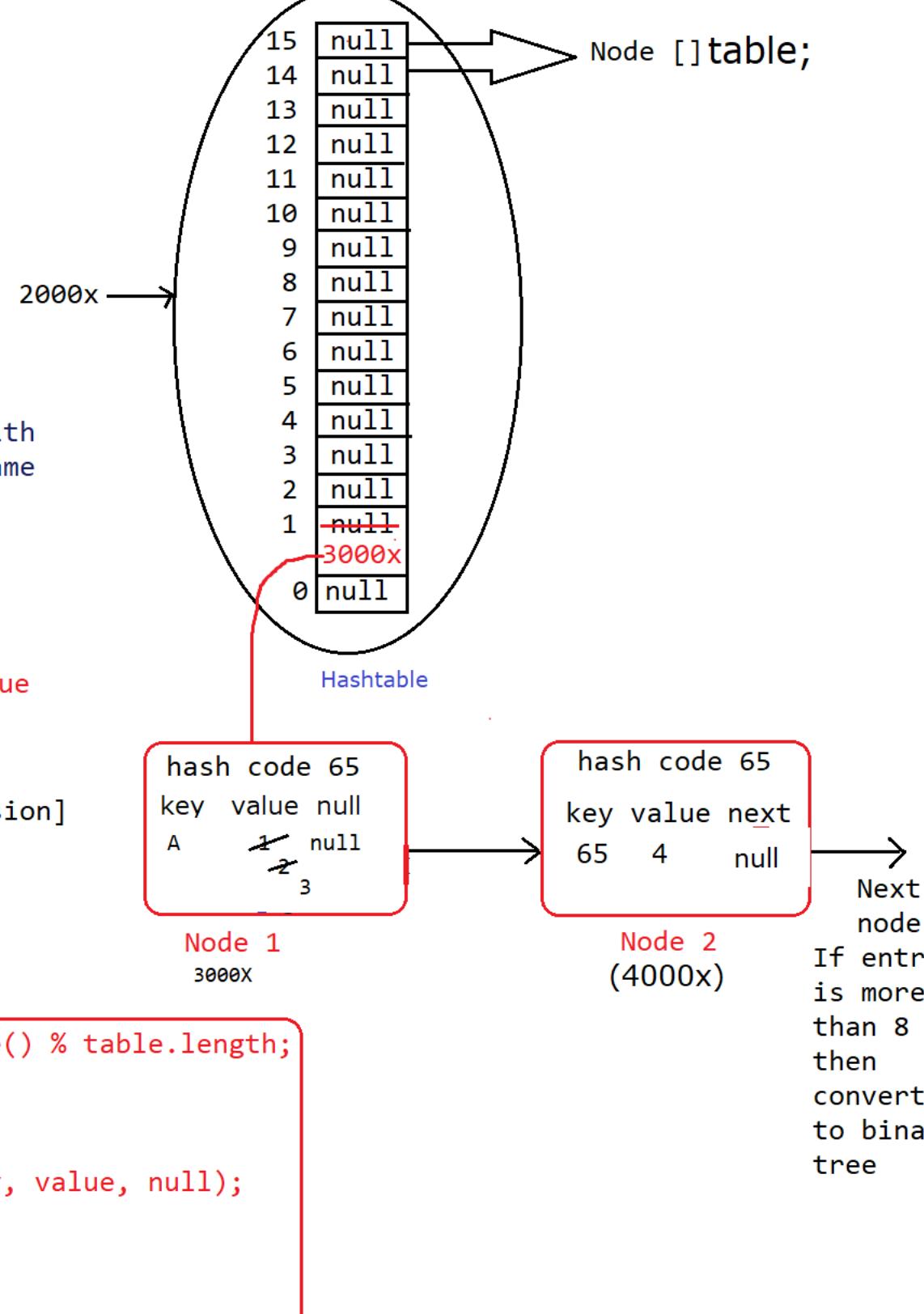
```
hm.put("A",2);  
-> key2.hashCode();  
65 % 16 = 1  
key2 == key1 -> true
```

Hash Collision, Now this entry will also insert in the same bucket.
Comparsion will be done with the existing key in the same bucket only.

```
hm.put(new String("A"),3);  
-> key3.hashCode();  
65 % 16 = 1 [Hash Coll]  
key3 == key1 -> false  
key3.equals(key1) -> true
```

```
hm.put(65,4);  
-> key4.hashCode();  
65 % 16 = 1 [Hash Collision]  
k4 == k1 -> false  
k4.equals(k1); -> false
```

hm : 1000x, table:2000x [Stack]
2000x :Hashtable object created [Heap]



```
int index = key.hashCode() % table.length;  
  
if(table[index] == null)  
{  
    Node n = new Node(key, value, null);  
    table[index] = n;  
}  
else  
{  
}
```