

How HashMap works internally

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

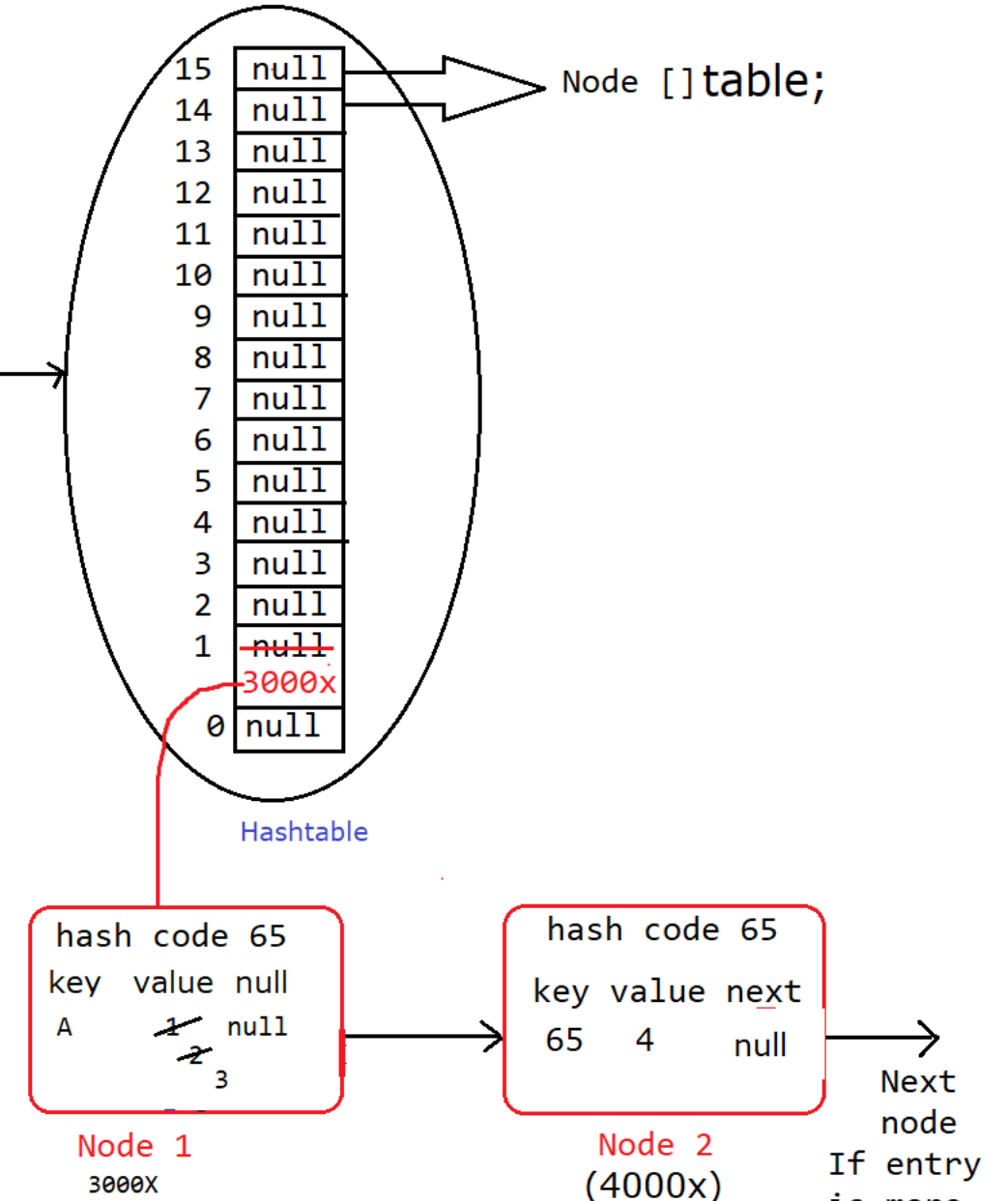
hm.put("A",2);
-> key2.hashCode();
65 % 16 = 1
key2 == key1 -> true

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 cretaed [Heap]



```
int index = key.hashCode() % table.length;

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