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Difference Between HashMap and IdentityHashMap

Most of the time I use HashMap whenever a map kinda object is needed. When reading some blog I came across IdentityHashMap in Java.

by Himanshu Gupta · Apr. 15, 10 · Java Zone · Opinion

Heads up...this article is old!

Technology moves quickly and this article was published 8 years ago. Some or all of its contents may be outdated.

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Most of the time I use HashMap whenever a map kinda object is needed. When reading some blog I came across IdentityHashMap in Java. It is good to understand the differences between the two because you never know when you will see them flying across your code and you trying to find out why is this kinda Map is used here.

IdentityHashMap as name suggests uses the equality operator(==) for comparing the keys. So when you put any Key Value pair in it the Key Object is compared using == operator.

```
import java.util.HashMap; import java.util.IdentityHashMap; import java.util.Map;public class IdentityMapDemo {public static void main(String[] ar
```

On the other hand HashMap uses equals method to determine the uniqueness of the Key.

```
k1.equals(k2)
```

instead of equality operator.

When you run the above code the result will be

```
Identity Map KeySet Size :: 2Hash Map KeySet Size :: 1
```

The Keysize of Identity Map is 2 because here **a** and **new String("a")** are considered two different Object. The comparison is done using == operator.

For HashMap the keySize is 1 because K1.equals(K2) returns true for all three Keys and hence it keep on removing the old value and updating it with the new one.

These both Maps will behave in same manner if they are used for Keys which are user defined Object and doesn't overrides equals method.

From http://himanshugpt.wordpress.com/2010/03/24/difference-between-hashmap-and-identityhashmap/

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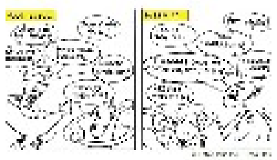

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