

But, in the case of WeakHashMap, if object doesn't contain any references, it is eligible for GC even though Object associated with WeakHashMap i.e. Garbage Collector dominates WeakHashMap.

Ex

```
import java.util.*;

public class Test
{
    public static void main (String[] args) throws Exception
```

```
    HashMap m = new HashMap ();
```

```
    Temp t = new Temp();
```

```
    m.put (t, "durga");
```

```
    S.o.p (m);
```

```
    t = null;
```

```
    System.gc();
```

```
    Thread.sleep (5000);
```

```
    S.o.p (m);
}
```

```
class Temp
```

```
{
```

```
    public String toString()
```

```
{
```

```
    return "temp";
```

```
}
```

```
    public void finalize()
```

```
{
```

```
    S.o.p ("Finalize method called");
```

```
}
```

⇒ In this Example, Temp object not eligible for GC bcoz, it is associated with HashMap

In this case o/p is { temp = durga }

⇒ In the above prog, if we replace HashMap with WeakHashMap

then temp object is eligible for GC.

In this case o/p is : { }

## => Sorted Map :-

- > It is the child interface of Map.
- > If we want to represent a group of key-value pairs a/c to some sorting order ~~instead~~ of k, then we should go for Sorted Map.
- > Sorting is based on the key, but not based on Value.
- > Sorted Map defines the following <sup>Specific</sup> methods:-
  - Object firstKey()
  - Object lastKey()
  - SortedMap headMap(Object key)
  - SortedMap tailMap(Object key)
  - SortedMap subMap(Object key1, Object key2)
  - Comparator comparator()

firstKey() → 101	101 - A
lastKey() → 136	103 - B
headMap(107) → {101=A, 103=B, 104=C}	104 - C
tailMap(107) →	107 - D
	125 - E
	136 - F

{ 107=D, 125=E, 136=F }

subMap(103, 25} →

{ 103=B, 104=C, 107=D }

comparator() → null

## => TreeMap :-

- ① The underlined data structured is RED-BLACK Tree.
- ② Insertion Order is not preserved. and it is based on some sorting order of keys.
- ③ Duplicate keys are not allowed, but values can be duplicated.
- ④ If we are depending on default natural sorting order then keys should be homogeneous and