

Annexes - La classe util.MapUtil

Cette classe utilitaire propose une méthode permettant de classer une Map<Clé, Valeur> dans l'ordre décroissant des valeurs, à condition que ces valeurs soient des entiers. Le fichier est disponible sur le portail.

```
package util;

import java.util.ArrayList;
import java.util.Collections;
import java.util.Comparator;
import java.util.LinkedHashMap;
import java.util.List;
import java.util.Map;
import java.util.Map.Entry;

public class MapUtil {

    public static <K, V extends Comparable? super V>> Map<K, V> sortByDescendingValue(Map<K, V> map) {

        List<Entry<K, V>> sortedEntries = new ArrayList<Entry<K, V>>(map.entrySet());

        Collections.sort(sortedEntries, new Comparator<Entry<K, V>>() {
            @Override
            public int compare(Entry<K, V> e1, Entry<K, V> e2) {
                return e2.getValue().compareTo(e1.getValue());
            }
        });

        Map<K, V> result = new LinkedHashMap<>();
        for (Entry<K, V> entry : sortedEntries) {
            result.put(entry.getKey(), entry.getValue());
        }

        return result;
    }
}
```

Un exemple de trace d'exécution

Blastoff vs Drift --> Blastoff wins!
Blastoff vs Lynx --> Lynx wins!
Blastoff vs Catalyst --> Catalyst wins!
Blastoff vs Raven --> Raven wins!
Blastoff vs Midas --> Midas wins!
Drift vs Blastoff --> Blastoff wins!
Drift vs Lynx --> Lynx wins!
Drift vs Catalyst --> Drift wins!
Drift vs Raven --> Drift wins!
Drift vs Midas --> Midas wins!
Lynx vs Blastoff --> Lynx wins!
Lynx vs Drift --> Drift wins!
Lynx vs Catalyst --> Lynx wins!
Lynx vs Raven --> Lynx wins!
Lynx vs Midas --> Lynx wins!
Catalyst vs Blastoff --> Catalyst wins!
Catalyst vs Drift --> Drift wins!
Catalyst vs Lynx --> Lynx wins!
Catalyst vs Raven --> Catalyst wins!
Catalyst vs Midas --> Midas wins!
Raven vs Blastoff --> Raven wins!
Raven vs Drift --> Drift wins!
Raven vs Lynx --> Raven wins!
Raven vs Catalyst --> Raven wins!
Raven vs Midas --> Raven wins!
Midas vs Blastoff --> Blastoff wins!
Midas vs Drift --> Midas wins!
Midas vs Lynx --> Lynx wins!
Midas vs Catalyst --> Catalyst wins!
Midas vs Raven --> Raven wins!

*** Ranking ***

Lynx - 8
Raven - 6
Drift - 5
Catalyst - 4
Midas - 4
Blastoff - 3