MAPS

MAP INTERFACE

Es una estructura que contiene elementos mapeados a su llave

- No acepta llaves duplicadas
- Útil para buscar, actualizar y eliminar

MAP INTERFACE

```
Object put(Object key, Object value)
void putAll(Map map)
Object remove(Object key)
Object get(Object key)
boolean containsKey(Object key)
Set keySet()
Set entrySet()
```

HASHMAP

HASHMAP

Hash Table que implementa la interfaz Map

- Contiene elementos basados en llaves
- No permite llaves duplicadas
- No esta ordenada
- Perimite solo una llave null
- Permite multiples valores null

CONSTRUCTORES

```
HashMap()
HashMap(Map m)
```

MÉTODOS

```
void clear()
boolean containsKey(Object key)
boolean containsValue(Object value)
boolean isEmpty()
Object clone()
Set entrySet()
Set keySet()
Object put(Object key, Object value)
int size()
Collection values()
```

EJERCICIO

```
import java.util.*;
class TestMap{
  public static void main(String args[]){

    Map<Integer, String> map = new HashMap<Integer, String>();

    map.put(100,"Amit");
    map.put(101,"Vijay");
    map.put(102,"Rahul");
    map.put(102,"Vijay");
    map.put(103,"Amit");
    map.put(null,null);
    map.put(null,"Payal");

    for( Map.Entry<Integer, String> m : map.entrySet() ) {
      System.out.println(m.getKey()+" "+m.getValue());
    }
  }
}
```

EJERCICIO

```
import java.util.*;
public class HashMapExample {
  public static void main(String args[]) {

    Map<Integer,String> map = new HashMap<Integer,String>();

    map.put(101,"Let us C");
    map.put(102, "Operating System");
    map.put(103, "Data Communication and Networking");

    Iterator it = map.keySet().iterator();
    while(it.hasNext()){
      Integer key = it.next();
      System.out.println("Clave: " + key + " -> Valor: " + map.get(ke
    }
  }
}
```

EJERCICIO

```
import java.util.*;
public class HashMapExample {
  public static void main(String args[]) {

    HashMap<Integer,String> map = new HashMap<Integer,String>();
    map.put(101,"Let us C");
    map.put(102, "Operating System");
    map.put(103, "Data Communication and Networking");

    map.remove(102);
  }
}
```