```
// Import necessary Java utilities package
import java.util.*;
class Main {
 public static void main(String[] args) {
   // Create a HashMap that can store any type of key and value (using Object)
   Map<Object,Object> map = new HashMap<>();
   // Adding key-value pairs to the map
   map.put("Apple", 10);
   map.put("Banana", 20);
   map.put("Orange", 30);
   // Print all entries in the map
   System.out.println("Initial entries: " + map.entrySet());
   // Check if map contains a specific key
   System.out.println("Contains key 'Banana'?" + map.containsKey("Banana"));
   // Get value associated with a key
   System.out.println("Value of 'Orange': " + map.get("Orange"));
   // Update operations
   map.put("Orange", 50); // Overwrites the value for "Orange"
   map.replace("Apple", 10); // Replaces value for "Apple" only if it exists
   map.replace("Banana", 20, 30); // Replaces value for "Banana" only if
current value is 20
```

```
// Print entries after updates
   System.out.println("Entries after updates: " + map.entrySet());
   // Remove operations
   map.remove("Apple"); // Removes the "Apple" entry regardless of its value
   map.remove("Banana", 40); // Removes "Banana" only if its value is 40
(won't work here)
   // Print entries after removals
   System.out.println("Entries after removals: " + map.entrySet());
   // Create another HashMap
   HashMap<String,Integer> fruits = new HashMap<>();
   fruits.put("Apple", 40);
   fruits.put("Mango", 80);
   // Merge the second map into the first map
   map.putAll(fruits);
   // Print entries after merge
   System.out.println("Entries after merge: " + map.entrySet());
   // Utility methods
   System.out.println("Size: " + map.size()); // Number of key-value pairs
   System.out.println("IsEmpty: " + map.isEmpty()); // Checks if map is empty
   System.out.println("Value of Apple: " + map.getOrDefault("Apple", 0)); //
Gets value or default
```

```
// Iterate through all entries in the map
   System.out.println("Iterating through entries:");
   for(Map.Entry<Object,Object> entry : map.entrySet()) {
     System.out.println(entry.getKey() + " : " + entry.getValue());
   }
   // Clear all entries from the map
   map.clear();
   // Print size after clearing
   System.out.println("Size after clear: " + map.size());
}
Outputs:
Initial entries: [Apple=10, Orange=30, Banana=20]
Contains key 'Banana'? true
Value of 'Orange': 30
Entries after updates: [Apple=10, Orange=50, Banana=30]
Entries after removals: [Orange=50, Banana=30]
Entries after merge: [Apple=40, Mango=80, Orange=50, Banana=30]
Size: 4
IsEmpty: false
```

Value of Apple: 40

## Iterating through entries:

Apple: 40

Mango: 80

Orange: 50

Banana: 30

Size after clear: 0

=== Code Execution Successful ===