HashMaps

Actividad 1.

```java
import java.util.HashMap;

public class Main {
  public static void main(String[] args) {
    HashMap<String, String> capitalCities = new HashMap<String, String>();
    capitalCities.put("England", "London");
    capitalCities.put("Germany", "Berlin");
    capitalCities.put("Norway", "Oslo");
    capitalCities.put("USA", "Washington DC");
    capitalCities.put("Mexico", "Mexico City");
    System.out.println(capitalCities);
  }
}
```

```
{USA=Washington DC, Norway=Oslo, England=London, Mexico=Mexico City, Germany=Berlin}
```

```java
import java.util.HashMap;

public class Main {
  public static void main(String[] args) {
    HashMap<String, String> capitalCities = new HashMap<String, String>();
    capitalCities.put("England", "London");
    capitalCities.put("Germany", "Berlin");
    capitalCities.put("Norway", "Oslo");
    capitalCities.put("USA", "Washington DC");
    System.out.println(capitalCities.get("England"));
    System.out.println(capitalCities.get("Norway"));
  }
}
```

```
London
Oslo
```

```java
import java.util.HashMap;

public class Main {
  public static void main(String[] args) {
    HashMap<String, String> capitalCities = new HashMap<String, String>();
    capitalCities.put("England", "London");
    capitalCities.put("Germany", "Berlin");
    capitalCities.put("Norway", "Oslo");
    capitalCities.put("USA", "Washington DC");
    capitalCities.remove("England");
    capitalCities.remove("Norway");
    System.out.println(capitalCities);
  }
}
```

```
{USA=Washington DC, Germany=Berlin}
```

```java
import java.util.HashMap;

public class Main {
  public static void main(String[] args) {
    HashMap<String, String> capitalCities = new HashMap<String, String>();
    capitalCities.put("England", "London");
    capitalCities.put("Germany", "Berlin");
    capitalCities.put("Norway", "Oslo");
    capitalCities.put("USA", "Washington DC");
    capitalCities.put("Mexico", "Mexico City");
    System.out.println(capitalCities.size());
  }
}
```

```
5
```

```java
import java.util.HashMap;

public class Main {
  public static void main(String[] args) {
    HashMap<String, String> capitalCities = new HashMap<String, String>();
    capitalCities.put("England", "London");
    capitalCities.put("Germany", "Berlin");
    capitalCities.put("Norway", "Oslo");
    capitalCities.put("USA", "Washington DC");
    capitalCities.put("Mexico", "Mexico City");

    for (String i : capitalCities.keySet()) {
      System.out.println(i + " " + capitalCities.get(i));
    }
  }
}
```

```
USA Washington DC
Norway Oslo
England London
Mexico Mexico City
Germany Berlin
```

```java
// Import the HashMap class
import java.util.HashMap;

public class Main {
  public static void main(String[] args) {

    // Create a HashMap object called people
    HashMap<String, Integer> people = new HashMap<String, Integer>();

    // Add keys and values (Name, Age)
    people.put("John", 32);
    people.put("Steve", 30);
    people.put("Angie", 33);
    people.put("Karliux", 15);

    for (String i : people.keySet()) {
      System.out.println("Name: " + i + "\tAge: " + people.get(i));
    }
  }
}
```

```
Name: Angie      Age: 33
Name: Steve      Age: 30
Name: John       Age: 32
Name: Karliux    Age: 15
```

Tema de interés

```java
// Import the HashMap class
import java.util.HashMap;

public class Main {
  public static void main(String[] args) {
    HashMap<String, Float> cars = new HashMap<String, Float>();
    cars.put("Hyundai", 1.1f);
    cars.put("G5 GT", 2.2f);
    cars.put("Mustang", 5.0f);
    cars.put("Topaz", 2.4f);

    for (String i: cars.keySet()) {
      System.out.println("Name: " + i + "\tEngine Size: " +
cars.get(i));
    }
  }
}
```

```
Name: Mustang    Engine Size: 5.0
Name: Hyundai    Engine Size: 1.1
Name: Topaz      Engine Size: 2.4
Name: G5 GT      Engine Size: 2.2
```

Actividad 2.

```java
// Import the HashMap class
import java.util.HashMap;
import java.util.Scanner;

public class Main {
  public static void main(String[] args) {
    Scanner s = new Scanner(System.in);
    HashMap<String, String> sites = new HashMap<String, String>();
  for(int i = 0; i < 5; i++){
        System.out.print("Insert Key: ");
      String l = s.nextLine();
        if(sites.containsKey(l)){
          System.out.println("Key already exists");
            i--;
        }
        else {
          System.out.print("Insert Value: ");
          String c = s.nextLine();
            sites.put(l, c);
        }
    }
    for (String i: sites.keySet()) {
      System.out.println("Alias: " + i + "\tSite: " + sites.get(i));
    }
  }
}
```

```
PS C:\Users\lalor\Downloads> java Main
Insert Key: Moodle
Insert Value: https://upmoodlecloud.up.edu.mx/course/view.php?id=2338
Insert Key: Gmail
Insert Value: https://mail.google.com/mail/u/0/#inbox
Insert Key: GitHub
Insert Value: https://gist.github.com/LuisR-jpg/a0af516ce6082c2cee7e9e5a5d6816a4
Insert Key: Moodle
Key already exists
Insert Key: Gmail
Key already exists
Insert Key: GitHub
Key already exists
Insert Key: W3schools
Insert Value: https://www.w3schools.com/java/tryjava.asp?filename=demo_hashmap_integer
Insert Key: Drive
Insert Value: https://drive.google.com/drive/u/0/my-drive
Alias: W3schools        Site: https://www.w3schools.com/java/tryjava.asp?filename=demo_hashmap_integer
Alias: Moodle    Site: https://upmoodlecloud.up.edu.mx/course/view.php?id=2338
Alias: Gmail     Site: https://mail.google.com/mail/u/0/#inbox
Alias: GitHub    Site: https://gist.github.com/LuisR-jpg/a0af516ce6082c2cee7e9e5a5d6816a4
Alias: Drive     Site: https://drive.google.com/drive/u/0/my-drive
PS C:\Users\lalor\Downloads>
```