

Java Hash map

Java HashMap it used for the store Items store items in "**key/value**" pairs, and you can access them by an index of another type string.

One object is used as a key (index) to another object (value). It can store different types: **String** keys and **Integer** values, or the same type, like: **String** keys and **String** values:

*

Create hashmap objects called Capital Cities that will store keys and String values .

Example:

```
Import java.util.HashMap; // here we are creating hashmap class
```

```
HashMap<String ,String >CapitalCities =new HashMap<Strings,Striing>();
```

1. The **HashMap** class has many useful methods.
2. For example, to add items to it, use the **Put()** method

```
import java.util.HashMap;

public class Main {
    public static void main(String[] args) {
        HashMap<String, String> capitalCities = new HashMap<String, String>();
        capitalCities.put("thbs", "company");
        capitalCities.put("good", "at the");
        capitalCities.put("bangular", "Uk");
        capitalCities.put("USA", "Dehli");
        System.out.println(capitalCities);
    }
}
```

```
{USA=Dehli, thbs=company, bangular=Uk, good=at the}
```

> 1.Access an Item

> access a value in the HashMap use the `get()` method and refer to its key:

```
import java.util.HashMap;

public class Main {
    public static void main(String[] args) {
        HashMap<String, String> capitalCities = new HashMap<String, String>();
        capitalCities.put("hindhi", "telugu");
        capitalCities.put("karnataka", "Bangali");
        capitalCities.put("english", "tamil");
        capitalCities.put("kerala", "kannada");
        System.out.println(capitalCities.get("hindhi"));
    }
}
```

telugu

> 2.Remove an Items

1. Remove an items, use the `remove()` method and use this to the key

```
import java.util.HashMap;

public class Main {
    public static void main(String[] args) {
        HashMap<String, String> capitalCities = new HashMap<String, String>();
        capitalCities.put("hindhi", "telugu");
        capitalCities.put("karnataka", "Bangali");
        capitalCities.put("english", "tamil");
        capitalCities.put("kerala", "kannada");
        capitalCities.remove("hindhi");
        System.out.println(capitalCities);
    }
}
```

{kerala=kannada, karnataka=Bangali, english=tamil}

>3. HashMap Clear()

1. To remove all items, use the `clear()` method:

```
import java.util.HashMap;

public class Main {
    public static void main(String[] args) {
        HashMap<String, String> capitalCities = new HashMap<String, String>();
        capitalCities.put("telugu", "kannnada");
        capitalCities.put("tamil", "karnataka");
        capitalCities.put("hindhi", "english");
        capitalCities.put("USA", "Uk");
        capitalCities.clear();
        System.out.println(capitalCities);
    }
}
```

{}

>4. HashMap Size()

1. To find out how many items there are, use the `size()` method:

2. example:

```
import java.util.HashMap;

public class Main {
    public static void main(String[] args) {
        HashMap<String, String> capitalCities = new HashMap<String, String>();
        capitalCities.put("telugu", "kannnada");
        capitalCities.put("tamil", "karnataka");
        capitalCities.put("hindhi", "english");
        System.out.println(capitalCities.size());
    }
}
```

A terminal window with a black background and white text. The number '3' is displayed on the first line, representing the output of the size() method from the provided code example.

>5. Loop Through a HashMap

1. Loop through the items of a `HashMap` with a **for-each** loop.

2. Use the `keySet()` method if you only want the keys, and use the `values()` method if you only want the values:

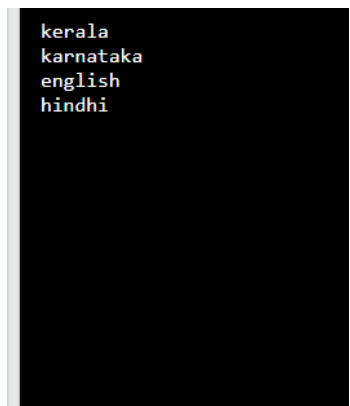
3. example:

```
import java.util.HashMap;

public class Main {
    public static void main(String[] args) {
        HashMap<String, String> capitalCities = new HashMap<String, String>();

        capitalCities.put("hindhi", "telugu");
        capitalCities.put("karnataka", "Bangali");
        capitalCities.put("english", "tamil");
        capitalCities.put("kerala", "kannada");

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

A terminal window with a black background and white text. The keys of the HashMap are printed on separate lines: 'kerala', 'karnataka', 'english', and 'hindhi'.