

HashMap

Arrays and Lists store elements as ordered collections, with each element given an integer index.

HashMap is used for storing data collections as key and value pairs. One object is used as a key (index) to another object (the value).

The **put**, **remove**, and **get** methods are used to add, delete, and access values in the HashMap.

Example:

```
import java.util.HashMap;
```

```
public class MyClass {  
    public static void main(String[ ] args) {  
        HashMap<String, Integer> points = new HashMap<String, Integer>();  
        points.put("Amy", 154);  
        points.put("Dave", 42);  
        points.put("Rob", 733);  
        System.out.println(points.get("Dave"));  
    }  
}
```

Output:

42

We have created a HashMap with Strings as its keys and Integers as its values.

Use the **get** method and the corresponding key to access the HashMap elements.

A **HashMap** cannot contain duplicate keys. Adding a new item with a key that already exists overwrites the old element.

The HashMap class provides **containsKey** and **containsValue** methods that determine the presence of a specified key or value.

If you try to get a value that is not present in your map, it returns the value of **null**.

null is a special type that represents the absence of a value.

Problem

The program you are given defines and outputs HashMap, where the names of employees are stored as keys, and their ages as values.

It also takes N number from user as age limit. Write code to delete all the employees whom age is less than N number.

The line of code for the output of HashMap object is already provided.

Sample Input

25

Sample Output

{Robert=32, John=28}

Hint

Use **get()** method to access values in the HashMap and **remove()** to delete them.

nameArr is an array of given HashMap keys and created for iteration.

```
import java.util.HashMap;
```

```
import java.util.Scanner;
```

```

public class Main {
    public static void main(String[ ] args) {
        Scanner scanner = new Scanner(System.in);

        HashMap<String, Integer> ages = new HashMap<String, Integer>();
        ages.put("David", 22);
        ages.put("Tom", 23);
        ages.put("Robert", 32);
        ages.put("Alice", 21);
        ages.put("Sophie", 19);
        ages.put("Maria", 24);
        ages.put("John", 28);

        String[] nameArr = new String[ages.size()];
        nameArr = ages.keySet().toArray(nameArr);

        int ageLimit = scanner.nextInt();
        for (String emp : nameArr){
            if(ages.get(emp) < ageLimit)
                ages.remove(emp);
        }
        System.out.println(ages);
    }
}

```

Input

20

Output

{Tom=23, Robert=32, Alice=21, David=22, John=28, Maria=24}