Name: Somnath R. Shintre Roll No:

Class: TE CSE Batch:

**Title: -** Fill a HashMap with key-value pairs. Print the results to show ordering by hash code. Extract the pairs, sort by key, and place the result into a LinkedHashMap. Show that the insertion order is maintained.

**Program:-**

import java.util.\*;

class HashMapper{

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

LinkedHashMap<Integer, String> linkedmap = new LinkedHashMap<Integer, String>();

public void fillMap(){

Random rand = new Random(42);

int k;

for (int i=0; i<10; i++){

k = rand.nextInt(i+20);

map.put(k, Integer.toString(k));

}

System.out.println("\nHash code order: " + map);

}

public void remap(){

Set<Integer> keyset = map.keySet();

Iterator<Integer> it;

int temp;

int smallest;

int iterations = keyset.size();

System.out.println("\nInserting into LinkedHashMap...");

System.out.println("Key Values");

System.out.println("--------------");

for (int i = 0; i < iterations; i++) {

it = keyset.iterator();

smallest = it.next();

it = keyset.iterator();

while(it.hasNext()) {

temp = it.next();

if (temp < smallest) smallest = temp;

}

linkedmap.put(smallest, map.get(smallest));

System.out.println(smallest+" "+map.get(smallest));

keyset.remove(smallest);

}

System.out.println("\nSorted LinkedHashMap(insertion order maintained): " + linkedmap);

}

}

public class Hashmap {

public static void main(String[] args) {

HashMapper hm = new HashMapper();

hm.fillMap();

hm.remap();

}

}

**Output: -**

