Java Generics Assignment

1. Using Hashset to hold employee objects. Upon running the application, the details of the employee added to the HashSet should be displayed.

import java.util.\*;

class Employee{

int id;

String name;

int Salary;

String department;

public Employee(int id, String name,int Salary,String department) {

this.id=id;

this.name=name;

this.Salary=Salary;

this.department=department;

}

}

public class G1 {

public static void main(String[] args) {

// TODO Auto-generated method stub

HashSet<Employee> hs = new HashSet<Employee>();

Employee E1 = new Employee(101,"Sravya",50000,"Administration");

Employee E2 = new Employee(102,"Yashaswi",40000,"Sales");

Employee E3 = new Employee(103,"John",60000,"Administration");

hs.add(E1);

hs.add(E2);

hs.add(E3);

for(Employee E:hs)

{

System.out.println(E.id+" "+E.name+" "+E.Salary+" "+E.department);

}

}

}

1. Write an application to hold 10 random int values as keys and 10 random double values as values for HashMap. Print the data store in the HashMap.

import java.util.\*;

public class G2 {

public static void main(String[] args) {

// TODO Auto-generated method stub

Map<Integer,Double> mp = new HashMap<Integer,Double>();

mp.put(101, 10.098);

mp.put(102, 20.058);

mp.put(103, 10.098);

mp.put(104, 42.764);

mp.put(105, 75.432);

mp.put(106, 97.209);

mp.put(107, 31.875);

mp.put(108, 31.875);

mp.put(109, 20.058);

mp.put(110, 86.320);

//Iterating Through HashMap

for(Map.Entry<Integer, Double> k:mp.entrySet())

{

System.out.println(k.getKey()+" "+k.getValue());

}

}

}

1. Write a generic method to exchange the positions of two different elements in an array.

import java.util.\*;

public class G3 {

public static void main(String[] args) {

// TODO Auto-generated method stub

List<Integer> al = new ArrayList<Integer>();

al.add(23);

al.add(46);

al.add(87);

al.add(96);

al.add(45);

System.out.println("Before Changing elements");

System.out.println(al);

//Changing Second Element and 4th Element in the list

Collections.swap(al, 1, 3);

System.out.println("After Changing elements");

System.out.println(al);

}

}