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

Main.java

**package** generic\_pro;

**import** java.util.HashSet;

**public class** Main {

**public static void** main(String[] args)

{

HashSet<emp>set=**new** HashSet<emp>();

emp e=**new** emp(312,"Sameer","IT",45000.0);

set.add(e);

**for**(emp e1:set)

{

e.Displaydetails();

}

}

}

Emp.java

**Package** generic\_pro;

**publicclass** emp {

**int** id;

String name,dep;

**Double** sal;

**Public** emp(**int** id, String name, String dep, **double** sal)

{

**super**();

**this**.id = id;

**this**.name = name;

**this**.dep = dep;

{

System.***out***.println(id+" "+name+" "+dep+" "+sal);

}

}

Output:

312, Sameer IT 45000.0

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

import java.util.HashMap;

public class map

{

public static void main(String[] args)

{

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

map.put(76, 66.9);

map.put(84, 56.7);

map.put(12, 30.6);

map.put(79, 23.5);

map.put(25, 38.9);

map.put(85, 46.9);

map.put(234, 79.8);

map.put(129, 73.5);

map.put(64, 18.4);

map.put(94, 77.6);

System.out.println(map);

}

}

Output:

{76=66.9, 84=57.7, 12=30.6, 79=23.5, 25=38.9, 85=46.9, 234=79.8, 129=73.5, 64=18.4, 94=77.6}

3.Write ageneric method to exchange the position of two different elements in array.

**package** generic\_pro;

**import** java.util.ArrayList;

**import** java.util.Arrays;

**import** java.util.Collections;

**import** java.util.List;

**public** **class** Swap {

**public** **static** **final**<T> **void** swap(T[] a,**int** i,**int** j) {

T t=a[i];

a[i]= a[j];

a[j]=t;

}

**public** **static** **final** <T> **void** swap(List<T> b,**int** i,**int** j) {

Collections.<T>*swap*(b, i, j);

}

**private** **static** **void** swap1() {

Integer []a= {12,34};

*swap*(a,0,1);

System.***out***.println("a :"+Arrays.*toString*(a));

List<Integer> b=**new** ArrayList<Integer>(Arrays.*asList*(a));

*swap*(b,0,1);

System.***out***.println("b :"+b);

}

**public** **static** **void** main(String[]args) {

*swap1*();

}

}

OUTPUT:

a :[34, 12]

b :[12, 34]

1. Design a class named pair which has two properties. The name of the first property is key and that of the second property is value.

a.**import**java.util.\*;

**publicclass** pair {

**publicstaticvoid**main(String[] args)

{

Map<String,String>map=**new** HashMap<>();

map.put("susheel", "71");

map.put("sonu", "32");

System.***out***.println(map);

}

}

Output:

{susheel=71, sonu=32}

b. **import**java.util.\*;

**publicclass** pair1

{

**publicstaticvoid**main(String[] args)

{

Map<String,Date>map=**new** HashMap<>();

map.put("Today is", **new**java.util.Date());

System.***out***.println(map);

}

}

Output:

{Today is=Sun Jan 16 20:02:39 IST 2022}