JAVA GENERICS ASSIGNMENT 5

1)

**import** java.util.HashSet;

**class** Employee

{

**private** **long** id,salary;

**private** String name,dept;

**public** Employee(**long** id, String name, **long** salary, String dept)

{

**this**.id = id;

**this**.name = name;

**this**.salary = salary;

**this**.dept = dept;

}

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

{

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

Employee e1 =**new** Employee(1,"nikita",20000,"DA");

Employee e2 =**new** Employee(2,"mahek",25000,"JFS");

Employee e3 =**new** Employee(3,"kamal",35000,"ASE");

Employee e4 =**new** Employee(4,"pankaj",40000,"ASD");

set.add(e1);

set.add(e2);

set.add(e3);

set.add(e4);

**for** (Employee e:set)

{

System.***out***.println(e.id+ " " +e.name+ " " +e.salary+ " " +e.dept);

}

}

}

2)

**import** java.util.HashMap;

**public** **class** Hashmap

{

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

{

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

map.put(1,5.2);

map.put(2,5.3);

map.put(3,5.4);

map.put(4,5.5);

map.put(5,5.6);

map.put(6,5.7);

map.put(7,5.8);

map.put(8,5.9);

map.put(9,6.5);

map.put(10,6.23);

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

}

}

3)

**import** java.util.ArrayList;

**import** java.util.List;

**public** **class** SwapGenericElements

{

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

{

List<Integer> intList = **new** ArrayList<>();

intList.add(10);

intList.add(20);

intList.add(30);

intList.add(40);

Integer[] intArray = **new** Integer[intList.size()];

intArray = intList.toArray(intArray);

System.***out***.println("Before Swapping Array Elements:");

**for**(Integer e:intArray)

{

System.***out***.print(e+" ");

}

*swap*(intArray,1,3);

System.***out***.println("After Swapping Array Elements:");

**for**(Integer e:intArray)

{

System.***out***.print(e+" ");

}

}

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

{

T temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

}

4)

**public** **class** Pair<K,V>

{

**private** K key;

**private** V value;

**public** K getKey()

{

**return** key;

}

**public** **void** setKey(K key)

{

**this**.key = key;

}

**public** V getValue()

{

**return** value;

}

**public** **void** setValue(V value)

{

**this**.value = value;

}

}

a)b)

**public** **class** genericQueLast

{

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

{

Pair<String,String> P1=**new** Pair<>();

P1.setKey("hello");

P1.setValue("world");

System.***out***.println("For first pair Key is "+P1.getKey()+" and value is "+P1.getValue());

Pair<String,java.util.Date> P2=**new** Pair<>();

P2.setKey("today is");

P2.setValue(**new** java.util.Date());

System.***out***.println("For second pair Key is "+P2.getKey()+" and value is "+P2.getValue());

}

}