**Java core Assignment – 5 Tanaya Jadhav**

import java.util.Collections;  
import java.util.HashSet;  
import java.util.Set;  
  
  
public class Employee {  
  
 private int empId;  
 private String empName;  
 private double empsalary;  
  
 public Employee(int empId, String empName, double empsalary) {  
 super();  
 this.empId = empId;  
 this.empName = empName;  
 this.empsalary = empsalary;  
  
 }  
 public final int getEmpId() {  
 return empId;  
 }  
  
 public final void setEmpId(int empId) {  
 this.empId = empId;  
 }  
  
 public final String getEmpName() {  
 return empName;  
 }  
  
  
 public final void setEmpName(String empName) {  
 this.empName = empName;  
 }  
 public final void setEmpsalary(double empsalary){  
 this.empsalary=empsalary;  
 }  
  
 @Override  
 public String toString() {  
 return "Employee [empId=" + empId + ", empName=" + empName + ", empSal= " +empsalary +"]";  
 }  
  
 @Override  
 public int hashCode() {  
 return this.empId;  
 }  
  
 @Override  
 public boolean equals(Object obj) {  
 Employee employee = (Employee) obj;  
 if (employee.empId == this.empId) {  
 employee.setEmpName(this.empName);  
 return true;  
 } else {  
 return false;  
 }  
 }  
 public static void main(String[] args) {  
 Set<Employee> employees = new HashSet<Employee>();  
 Employee tanaya = new Employee(1, "Tanaya", 30000.00);  
 employees.add(tanaya);  
 System.*out*.println(employees);  
 }  
  
}

output:-

"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea\_rt.jar=64090:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Employee

[Employee [empId=1, empName=Tanaya, empSal= 30000.0]]

Process finished with exit code 0

2)

import java.util.HashMap;  
  
 class Hashmap {  
 public static void main(String args[])  
 {  
  
 HashMap<Integer, Double> hm1 = new HashMap<>();  
 HashMap<Integer, Double> hm2 = new HashMap<>();  
 hm1.put(1, 1234546.0);  
 hm1.put(2, 8451.0);  
 hm1.put(3, 454541.0);  
 hm1.put(4, 549529.0);  
 hm1.put(5,684184.0);  
  
 hm2.put(6, 4418414.0);  
 hm2.put(7, 4444.0);  
 hm2.put(8, 89615.0);  
 hm2.put(9, 51955184.0);  
 hm2.put(10, 5646154.0);  
  
 System.*out*.println("Mappings of HashMap hm1 are : "  
 + hm1);  
  
 System.*out*.println("Mapping of HashMap hm2 are : "  
 + hm2);  
 }  
  
}

Output:-

"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea\_rt.jar=61192:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Hashmap

Mappings of HashMap hm1 are : {1=1234546.0, 2=8451.0, 3=454541.0, 4=549529.0, 5=684184.0}

Mapping of HashMap hm2 are : {6=4418414.0, 7=4444.0, 8=89615.0, 9=5.1955184E7, 10=5646154.0}

Process finished with exit code 0

3)

import java.util.ArrayList;  
import java.util.Arrays;  
import java.util.Collections;  
import java.util.List;  
  
  
public class Generic {  
 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> l, int i, int j) {  
 Collections.<T>*swap*(l, i, j);  
 }  
  
 private static void test() {  
 String [] a = {"Tanaya", "Jadhav"};  
 *swap*(a, 0, 1);  
 System.*out*.println("a:"+Arrays.*toString*(a));  
 List<String> l = new ArrayList<String>(Arrays.*asList*(a));  
 *swap*(l, 0, 1);  
 System.*out*.println("l:"+l);  
 }  
 public static void main(String...args)  
 {  
 *test*();  
 }  
  
}

Output:- }

"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea\_rt.jar=50600:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Generic

a:[Jadhav, Tanaya]

l:[Tanaya, Jadhav]

Process finished with exit code 0

4)

public class Pair {  
 String first;  
 String second;  
 public Pair(String first, String second) {  
 this.first = first;  
 this.second = second;  
 }  
 public void print(){  
 System.*out*.println("< "+first+", "+second+ " >");  
 }  
  
 public static void main(String[] args){  
 Pair a = new Pair("1","Hello");  
 a.print();  
 }  
}

output:-

"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea\_rt.jar=59331:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Pair

< 1, Hello >

Process finished with exit code 0