**Java Core Assignment 6 -Tanaya Jadhav**

**1)**

import java.util.\*;  
class Contact {  
 String Name;  
 String Email;  
  
 enum Gender {*MALE*, *FEMALE*}  
  
 Gender contGender;  
  
 public Contact( String Name, String Email, Gender contGender) {  
 this.Name = Name;  
 this.Email = Email;  
 this.contGender = contGender;  
 }  
 public static void main(String[] args)  
 {  
 TreeMap<Long, Contact> contact = new TreeMap<Long,Contact>(Collections.*reverseOrder*());  
 Contact Tanaya = new Contact("Tanaya","tanaya@com",Gender.*FEMALE*);  
 Contact Amit = new Contact("Amit","amit@.com",Gender.*MALE*);  
 Contact Sham = new Contact("Sham","soham@.com",Gender.*MALE*);  
 contact.put(741258963L,Tanaya);  
 contact.put(745896321L,Amit);  
 contact.put(845632174L,Sham);  
  
 Set<Map.Entry<Long, Contact>> set = contact.entrySet();  
 for (Map.Entry<Long, Contact> longContactEntry : set) {  
 Long key = longContactEntry.getKey();  
 Contact b = longContactEntry.getValue();  
 System.*out*.println("key: "+key);  
 System.*out*.println("Contacts: ["+"Name:- "+b.Name+" "+"Email:- "+b.Email+"Gender:- "+b.contGender+"]");  
 }  
 }  
}

**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=51753:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Contact**

**key: 845632174**

**Contacts: [Name:- Sham Email:- soham@.comGender:- MALE]**

**key: 745896321**

**Contacts: [Name:- Amit Email:- amit@.comGender:- MALE]**

**key: 741258963**

**Contacts: [Name:- Tanaya Email:- tanaya@comGender:- FEMALE]**

**Process finished with exit code 0**

import java.util.\*;  
class Contact {  
 String Name;  
 String Email;  
  
 enum Gender {*MALE*, *FEMALE*}  
  
 Gender contGender;  
  
 public Contact( String Name, String Email, Gender contGender) {  
 this.Name = Name;  
 this.Email = Email;  
 this.contGender = contGender;  
 }  
 public static void main(String[] args)  
 {  
 TreeMap<Long, Contact> contact = new TreeMap<Long,Contact>(Collections.*reverseOrder*());  
 Contact Tanaya = new Contact("Tanaya","tanaya@com",Gender.*FEMALE*);  
 Contact Amit = new Contact("Amit","amit@.com",Gender.*MALE*);  
 Contact Sham = new Contact("Sham","soham@.com",Gender.*MALE*);  
 contact.put(741258963L,Tanaya);  
 contact.put(745896321L,Amit);  
 contact.put(845632174L,Sham);  
  
 Set<Map.Entry<Long, Contact>> set = contact.entrySet();  
 for (Map.Entry<Long, Contact> longContactEntry : set) {  
 Long key = longContactEntry.getKey();  
 Contact b = longContactEntry.getValue();  
 System.*out*.println("key: "+key);  
   
 }  
 }  
}

**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=62798:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Contact**

**key: 845632174**

**key: 745896321**

**key: 741258963**

**Process finished with exit code 0**

**2)**

import java.util.HashSet;  
public class Collection1 {  
  
  
 public static void main(String[] args)  
 {  
 HashSet<String> tanu = new HashSet<String>();  
 tanu.add("shampoo");  
 tanu.add("book");  
 tanu.add("soap");  
 tanu.add("table");  
 tanu.add("grocery");  
 tanu.add("phone");  
 tanu.add("pen");  
 tanu.add("pillow");  
 tanu.add("purse");  
 tanu.add("watch");  
 tanu.add("watch");  
 System.*out*.println("Tanayas set contains: ");  
 for (String temp : tanu) {  
 System.*out*.println(temp);  
 }  
 }  
 }

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=58565:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava Collection1

Tanayas set contains:

shampoo

phone

watch

book

grocery

pen

pillow

soap

table

purse

Process finished with exit code 0

ith exit code 0

3)

import java.util.\*;  
  
class Employee {  
 private int id;  
 private String name;  
 private final String Department;  
 private double Salary;  
  
 public Employee(int id, String name, String Department, double Salary) {  
 this.id = id;  
 this.name = name;  
 this.Department = Department;  
 this.Salary = Salary;  
 }  
  
 public int getId() {  
 return id;  
 }  
  
 public void setId(int id) {  
 this.id = id;  
 }  
  
 public String getName() {  
 return name;  
 }  
  
 public void setName(String name) {  
 this.name = name;  
 }  
  
 public String getDepartment() {  
 return Department;  
 }  
  
 public double getSalary() {  
 return Salary;  
 }  
  
 public void setSalary(double Salary) {  
 this.Salary = Salary;  
 }  
  
 @Override  
 public boolean equals(Object o) {  
 if (this == o) return true;  
 if (o == null || getClass() != o.getClass()) return false;  
 Employee employee = (Employee) o;  
 return id == employee.id;  
  
 }  
  
 @Override  
 public Object hashCode() {  
 return Objects.*hash*(id);

return Objects.hash(name);

return Objects.hash(department);

return Objects.hash(Salary);  
  
  
 }  
  
 public int Employee(Employee employee) {  
 return this.getId() - employee.getId();  
  
 }  
  
  
 @Override  
 public String toString() {  
 return "Employee{" +  
 "id=" + id +  
 ", name=" + name + ", Department= "+Department+" Salary= "+Salary +  
 '}';  
 }  
  
  
  
 }

import java.util.Scanner;  
import java.util.SortedSet;  
import java.util.TreeSet;

static class TreeSetUserDefinedObjectExample {  
public static void main(String[] args) {  
 Scanner in = new Scanner(System.*in*);  
 System.*out*.print("Enter Your Choice: ");  
 int n = in.nextInt();  
  
 SortedSet<Employee> employees = new TreeSet<>();  
  
 employees.add(new Employee(1001, "Tanaya","IT",200002));  
 employees.add(new Employee(1005, "Sachin","Cs",9887));  
 employees.add(new Employee(1008, "ramesh","Hr", 85250));  
 employees.add(new Employee(1015, "sanket","IT",200002));  
 employees.add(new Employee(1067, "Amit","BU",98817));  
 employees.add(new Employee(1023, "Chris","CR", 85240));  
 employees.add(new Employee(1010, "sonali","SR",2002));  
 employees.add(new Employee(1089, "monali","TR",98887));  
 employees.add(new Employee(1036, "akansha","BR", 8520));  
  
  
  
 System.*out*.println("Employees Sorted in form of ID");  
 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=57803:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava TreeSetUserDefinedObjectExample

Enter your choice: a

Employees Sorted in form of ID

[Employee{id=1001, name=Tanaya, Department= IT Salary= 200002.0},

Employee{id=1005, name=Sachin, Department= Cs Salary= 9887.0},

Employee{id=1008, name=ramesh, Department= Hr Salary= 85250.0},

Employee{id=1010, name=sonali, Department= SR Salary= 2002.0},

Employee{id=1015, name=sanket, Department= IT Salary= 200002.0},

Employee{id=1023, name=Chris, Department= CR Salary= 85240.0},

Employee{id=1036, name=akansha, Department= BR Salary= 8520.0},

Employee{id=1067, name=Amit, Department= BU Salary= 98817.0},

Employee{id=1089, name=monali, Department= TR Salary= 98887.0}]

Process finished with exit code 0

4) import java.util.ArrayList;  
import java.time.LocalDate;  
import java.util.Collection;  
import java.util.Iterator;  
import java.util.LinkedList;  
import java.util.List;  
import java.util.Objects;  
  
public class LeapCollection {  
  
 public static void main(String[] args) {  
  
 LocalDate date1 = LocalDate.*of*(2001, 12, 23);  
  
 Collection<Object> obj=new LinkedList<>();  
 obj.add(date1);  
 for(Object i: obj) {  
  
  
 int a,c;  
 int y=date1.getYear();  
 if(y!=0)  
 {  
 a=(y%400==0)?(c=1):(y%100==0)?(c=0):((y%4==0)?(c=1):(c=0));  
 if(a==1)  
 System.*out*.println(date1+" Hey tanaya ,it is a leap year");  
 else  
 System.*out*.println(date1+" Hey tanaya ,it is not a leap year");  
  
  
 Iterator<Object> itr=obj.iterator();  
 while(itr.hasNext()) {  
 }  
 }  
  
 }  
  
 }  
}

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=64346:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tanaya\IdeaProjects\Corejava\out\production\Corejava LeapCollection

2001-12-23 Hey tanaya ,it is not a leap year