

Міністерство освіти, науки, молоді та спорту України  
Національний університет «Львівська політехніка»

Кафедра СШ

## Лабораторна робота №13

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import
java.io.Serializable;

import java.util.*;
class Name implements Serializable{
    public String name;
    Name(String name){
        this.name = name;
    }
    public void setName(String name){
        this.name = name;
    }
    public String getName(){
        return name;
    }
}
class Address implements Serializable{
    public String address;
    Address(String address){
        this.address = address;
    }
    public void setAddress(String address){
        this.address = address;
    }
    public String getAddress(){
        return address;
    }
}
class Number implements Serializable{
    public ArrayList<Integer> numbers;
    Number(int number){
        this.numbers = new ArrayList<>();
        numbers.add(number);
    }
    public void addNumbers(int newNumber){
        numbers.add(newNumber);
    }
    public ArrayList getNumbers(){
        return numbers;
    }
    @Override
    public String toString(){
        return numbers.toString();
    }
}
class Specialization implements Serializable{
    public String specialization;
    Specialization(String specialization){

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        this.specialization = specialization;
    }
    public void setSpecialization(String specialization){
        this.specialization = specialization;
    }
    public String getSpecialization(){
        return specialization;
    }
}

class Schedule implements Serializable{
    public HashMap<String,String> schedule;
    Schedule(String day, String time){
        this.schedule = new HashMap<>();
        schedule.put(day,time);
    }
    public void addNewWorkingDay(String day, String time){
        schedule.put(day,time);
    }
    public void setSchedule(String day, String time){
        schedule.replace(day,time);
    }
    public void ShowSchedule(){
        for(Map.Entry<String, String> x :
schedule.entrySet()){
            System.out.println(x.getKey() + " " +
x.getValue());
        }
    }
    public HashMap<String, String> getSchedule() {
        return schedule;
    }
    @Override
    public String toString(){
        return schedule.toString();
    }
}

class TradePoint implements Serializable {
    Name name;
    Adress adress;
    Specialization specialization;
    Number number;
    Schedule schedule;
    public TradePoint( String name1, String adress1, int
number1, String specialization1, String day, String time){
        this.name = new Name(name1);

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        this.address = new Address(adress1);
        this.specialization = new
Specialization(specialization1);
        this.number = new Number(number1);
        this.schedule = new Schedule(day,time);
    }

    public String ShowAllData(){
        String str = name.getName() + " " + address.getAddress()
+ " " + specialization.getSpecialization() + " " + number + "
" + schedule;
        return str;
    }
    @Override
    public String toString(){
        return ShowAllData();
    }
}
public class Main {
    public static void main(String args[]) {
        TradePoint tradePoint = new TradePoint( "Name",
"Adress",123, "Programmer", "Monday", "20:00");
        TradePoint secondPoint = new TradePoint( "Andrew",
"MainStreet",880553535, "Trader", "Sunday", "18:00");
        System.out.println(tradePoint);
        System.out.println(secondPoint);
    }
}

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import
java.io.FileOutputStream;

import java.io.IOException;
import java.io.ObjectOutputStream;
import java.io.Serializable;
import java.util.Collections;
import java.util.LinkedList;
public class lab14 implements Serializable {
    private static LinkedList<TradePoint> list = new
LinkedList<>();
    private static int find(TradePoint value){
        return list.indexOf(value);
    }
    private static void remove(TradePoint value){
        list.remove(value);
    }
}

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    }
    private static void add(TradePoint value){
        list.add(value);
    }
    private static void sort(LinkedList<TradePoint> list){
        Collections.sort(list, (object1, object2) ->
object1.name.getName().compareTo(object2.name.getName()));
    }
    public static void main(String[] args) throws
IOException {
        TradePoint tradePoint = new TradePoint( "Bob",
"Adress",123, "Programmer", "Monday", "20:00");
        TradePoint secondPoint = new TradePoint( "Andrew",
"MainStreet",880553535, "Trader", "Sunday", "18:00");
        TradePoint thirdPoint = new TradePoint( "Joe",
"SalmanelaStreet",742625725, "Cook", "Tuesday", "17:00");
        TradePoint forthPoint = new TradePoint( "Anton",
"RynokStreet",450236234, "Manger", "Wednesday", "9:00");
        add(tradePoint);
        add(secondPoint);
        add(thirdPoint);
        add(forthPoint);
        for (Object i: list)
            System.out.println(i);
        sort(list);
        System.out.println();
        for (Object i: list)
            System.out.println(i);
        remove(thirdPoint);
        for (Object i: list)
            System.out.println(i);
        System.out.println("Find index of tradepoint " +
find(tradePoint));
        FileOutputStream fos = new
FileOutputStream("temp.out");
        ObjectOutputStream oos = new
ObjectOutputStream(fos);
        oos.writeObject(list);
        oos.flush();
        oos.close();
    }
}

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