LAB 1.3 AND LAB 1.4 ADDRESS BOOK and person

public class Person {

String firstName, lastName;

int idNumber;

static int count = 0;

Person() {

firstName = "MATT";

lastName = "ROBIN";

idNumber = 1000 + count;

changeID ();

}

String returnFirstName () {

return firstName;

}

String returnLastName () {

return lastName;

}

int returnidNumber () {

return idNumber;

}

String returnFullName () {

return firstName + lastName;

}

void printFirstName () {

System.out.println(firstName);

}

void printLastName () {

System.out.println(lastName);

}

void printIDNumber () {

System.out.println(idNumber);

}

String returnToString () {

return "Name: " + firstName + " " + lastName + ". ID Number : " + idNumber + ".";

}

private void changeID () {

this.count ++;

}

}

run:

Hello. What is your first name?

Matthew

What is your last name?

Robin

Your ID number is 1000.

Next Person!

Hello. What is your first name?

Matthew

What is your last name?

Robin

Your ID number is 1001.

Next Person!

Hello. What is your first name?

John

What is your last name?

Kelly

Your ID number is 1002.

BUILD SUCCESSFUL (total time: 52 seconds)

import java.util.\*;

import java.util.Scanner;

public class AddressBook {

ArrayList<Person> myAddressBook;

Scanner keyboard = new Scanner(System.in);

public AddressBook() {

this.myAddressBook = new ArrayList<>();

}

void UserAdd() {

System.out.println("Please write the name of the person "

+ "you would like to add to your address book.");

Person p1 = new Person();

p1.firstName = keyboard.nextLine();

myAddressBook.add(p1);

}

void add(Person p) {

if (myAddressBook.contains(p)) {

System.out.println("This person is already in your address book.");

} else {

myAddressBook.add(p);

System.out.print(p.returnToString());

System.out.println(" is now in your address book.");

}

}

void userDelete() {

System.out.println("Please write the name of the person "

+ "you would like to delete from your address book.");

Person p2 = new Person();

p2.firstName = keyboard.nextLine();

if (myAddressBook.contains(p2)) {

myAddressBook.remove(p2);

System.out.print(p2.returnToString());

System.out.println(" has been deleted.");

} else {

System.out.println("This person is not in your address book "

+ "and could not be deleted.");

}

}

void delete(Person p) {

if (myAddressBook.contains(p)) {

myAddressBook.remove(p);

System.out.print(p.returnToString());

System.out.println(" has been deleted.");

} else {

System.out.println("This person is not in your address book "

+ "and could not be deleted.");

}

}

public static boolean isInteger(String s) {

try {

Integer.parseInt(s);

} catch (NumberFormatException e) {

return false;

}

// only got here if we didn't return false

return true;

}

void userSearch() {

System.out.println("Please write the first name, last name, "

+ "or ID number of the person you would like to find");

String answer = keyboard.nextLine();

boolean found;

found = false;

for (Person p : myAddressBook) {

// check if answer is int

if (isInteger(answer)) {

// convert, go straight to compare to idNumber

String idString = String.valueOf(p.idNumber);

if (answer.equals(idString)) {

found = true;

System.out.println("ID Number Match!");

System.out.println(p.returnToString());

}

} //Search for first and last names

else {

if (p.firstName.equals(answer)) {

found = true;

System.out.println("First Name Match!");

System.out.println(p.returnToString());

} else {

if (p.lastName.equals(answer)) {

found = true;

System.out.println("Last Name Match!");

System.out.println(p.returnToString());

}

}

}

}

if (found == false) {

System.out.println("This person is not in your address book.");

}

}

void search(Person p3) {

if (myAddressBook.contains(p3)) {

System.out.println(p3.returnToString());

} else {

System.out.println("This person is not in your address book.");

}

}

}

run:

Name: Harry Potter. ID Number : 1000. is now in your address book.

Name: Tim Hidecker. ID Number : 1001. is now in your address book.

Name: Matthew Robin. ID Number : 1002. is now in your address book.

Deleting Harry Potter.

Name: Harry Potter. ID Number : 1000. has been deleted.

Searching for Tim Hidecker.

Name: Matthew Robin. ID Number : 1002.

Searching for Matthew Robin.

This person is not in your address book.

Calling user search:

Please write the first name, last name, or ID number of the person you would like to find

Matthew

First Name Match!

Name: Matthew Robin. ID Number : 1002.

BUILD SUCCESSFUL (total time: 13 seconds)