Name of the Course : Complete Java SE8 Developer Bootcamp

Level : Medium

Tool Stack: Java 8

Problem Statement : A collection application likes to read and store unique string elements in an ordered way .

The rules are

1. checking for duplicate elements is case sensitive.(AA and aa are different elements)
2. Upper case elements takes precedence in sorting.

(ABC precedes in order over abc)

Description : Create class MainClass with following methods .

1.Public static void main(String arg[])for accepting user input and invokes methods orderElements(String[] elements)

2. method public static String [] orderElements(String[] elements)

output consists of elements of string array.

Sample input 1:

6

AAA

BBB

AAA

AAA

CCC

CCC

sample output 1:

AAA

BBB

CCC

Sample input 2:

7

AAA

BBB

aaa

AAA

Abc

A

b

Sample Output 2:

A

AAA

Abc

BBB

aaa

b

Code:

**import** java.text.ParseException;

**import** java.util.Arrays;

**import** java.util.LinkedHashSet;

**import** java.util.Scanner;

**public** **class** UniqueCollection {

**public** **static** **void** main(String[] args) **throws** ParseException {

Scanner sc = **new** Scanner(System.***in***);

**int** n=sc.nextInt();

String[] a= **new** String[n];

**for**(**int** i=0;i<n;i++)

a[i]=sc.next();

String res[]=*orderElements*(a);

**for**(**int** i=0;i<res.length;i++)

System.***out***.println(res[i]);

}

**public** **static** String[] orderElements(String[] s) {

LinkedHashSet<String> lhs=**new** LinkedHashSet<String>();

**for**(**int** i=0;i<s.length;i++)

{

lhs.add(s[i]);

}

String[] a= **new** String[lhs.size()];

lhs.toArray(a);

Arrays.*sort*(a);

**return** a;

}

}

Junit Code:

import static org.junit.Assert.assertArrayEquals;

import static org.junit.Assert.assertEquals;

import org.junit.Test;

import handson.UniqueCollection;

import junit.framework.Assert;

public class TestUniqueCollection {

@Test

public void testOrderElements() {

assertArrayEquals(new String[]{"AAA","ABC","abc"},UniqueCollection.orderElements(new String[] {"abc","ABC","AAA","AAA"}));

assertArrayEquals(new String[] {"A","AAA","Abc","BBB","aaa","b"},

UniqueCollection.orderElements(new String[] {"AAA","BBB","aaa","AAA","Abc","A","b"}));

}

Test Data1

Sample input:

6  
AAA  
BBB  
AAA  
AAA  
CCC  
CCC  
sample output:

AAA  
BBB  
CCC

Test Data2

sample input :

7  
AAA  
BBB  
aaa  
AAA  
Abc  
A  
b  
sample output :

A  
AAA  
Abc  
BBB  
aaa  
b

Learning outcome: Participant could able to learn how to use Arrays ,Collection API.