**LAB Sessional Programming fundamentals**

**Reg# Fa20-Bse-094**

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**Question:**

Q1. Write down a function which receives a 2D array of Names of Students, the size of array could be m x n where m is number of rows and n is number of columns, the function converts all the Names in first row in uppercase and all the names in second row in lowercase, this process repeats for all the rows i.e., uppercase and lowercase in alternate rows. All the names in all the rows are also sorted as well and then this array is returned to the caller which is printed to show the result.

You are required to

1. Define method “myMethod” with all the given requirements.

2. In main method display all the names returned by the “myMethod

**Source Code:**

package ruslan\_7kd;

import java.util.\*;

public class Sessional\_2\_LAB\_Question\_2 {

public static void main(String[] args) {

// Given Initialized 2D array

String[][] arrayName = {

{"Asad","Kamal","Zahid","Jafar","Yaqoob"},

{"Hashim", "Waqar","Bilal","Danish","Masood"},

{"Tahir","Ahmed","Zafar","Javed","Qasim"},

{"Imran","Uzair","Basit","Ashraf","Rashid"}

};

// Method Calling

String[][] results = myMethod(arrayName);

// Displaying Data

System.out.println("\n\*\*\* Sorting, (Capital and lower casing) of Rows \*\*\*\n");

for (int i = 0; i < results.length; i++) {

System.out.print("\nRow: "+(i));

for (int j = 0; j < results[i].length; j++) {

System.out.printf("\t %.8s",results[i][j]);

}

}

}

//MyMethod for sorting and casings

public static String[][] myMethod(String[][] names){

//Loop for sorting

for (int i = 0; i < names.length; i++) {

Arrays.sort(names[i]);

}

for (int i = 0; i < names.length; i++) {

// If even Row the Capitalize else Lower case

if (i % 2 == 0){

for (int j = 0; j < names[i].length ; j++) {

String nameString = names[i][j];

names[i][j] = nameString.toUpperCase() ;// Upersae string method

}

}

else

for (int j = 0; j < names[i].length ; j++) {

String nameString = names[i][j];

names[i][j] = nameString.toLowerCase(Locale.ROOT);// Lower case string method

}

}

return names;

}

}

**Output**

