**Report for the Given Program “CombinedCheck.java”**

**Course**: Comp3053

**Name**: Yeda Han

**ID**: 16515800

**Introduction**Because the given program is .class file that cannot read directly, we cannot identify its detailed requirements. I decompiled the .class file to find following requirements from the program:

The requirements of email:

1. Email should contain one “@” symbol and be separated into two parts by it.
2. The left part of email should contain at least one character and up to 255 characters.
3. The right part of email should contain at least one “.” symbol and be separated into at least two parts by it.
4. The right part of email should contain at least one character and up to 255 characters.

The requirements of password(strong):

1. Password contain at least one special symbol.
2. Password contain at least one lower alphabet.
3. Password contain at least one number.
4. Password contain elements different from above three type.

**Errors in Given “CominedCheck.java”**

For email part

1. The program will never show “Valid Email ID” no matter whether the input email from console is valid or not.
2. The program cannot deal with exceptions by display corresponding messages, for example:

*console - $ Please enter E or e for email id verification and P or p for password format verification: E*

*console - $ Enter an Email Id: “thisisanemail”*

An exception “ArrayIndexOutOfBoundsException” will occur, the program will interrupt and need to terminate it manually.

For password part

The program will always show “Weak password” no matter what the input is.

**Conclusion**The program cannot show user messages about the judge for input because of the construction of code, which needs some reconstruction. For example(not all):

1. The code *“if (arrayOfString.length < 2) {”* in 23 line should be *“if (arrayOfString.length > 2) {”*
2. Following code

*if (c1 >= '?' && c1 <= '\_') {*

*bool1 = true;*

*}*

*else if (c1 >= 'c' && c1 <= 'x') {*

*bool2 = false;*

*}*

*else if (c1 >= '(' && c1 <= '9') {*

*bool3 = true;*

*} else {*

*bool4 = true;*

*}*

From 54 to 64 lines should be:

1. *if (c1 >= '?' && c1 <= '\_') {*

*bool1 = true;*

*}*

*if (c1 >= 'c' && c1 <= 'x') {*

*bool2 = true;*

*}*

*if (c1 >= '(' && c1 <= '9') {*

*bool3 = true;*

*}*

*If(!bool1 && !bool2 && !bool3){*

*bool4 = true;*

*}*