Inspection Summary Report

Inspection Identification:

Project: Reagent Control System

Inspector: Naranjo Jhony

Meeting Date: 08/July/2019

Work Product Description:

**Java Inspection Checklist**

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   1.  Variable, Attribute, and Constant Declaration Defects (VC)

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are descriptive variable and constant names used in accord with naming conventions?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are there variables or attributes with confusingly similar names?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is every variable and attribute correctly typed?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is every variable and attribute properly initialized?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are all for-loop control variables declared in the loop header?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are there literal constants that should be named constants?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are there variables or attributes that should be constants?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are there attributes that should be local variables?

❑  https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Do all attributes have appropriate access modifiers (private, protected, public)?

In class order doesn't have access modifiers

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are there static attributes that should be non-static or vice-versa?

2.  Method Definition Defects (FD)

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are descriptive method names used in accord with naming conventions?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is every method parameter value checked before being used?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ For every method: Does it return the correct value at every method return point?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Do all methods have appropriate access modifiers (private, protected, public)?

❑ Are there static methods that should be non-static or vice-versa?

There are static methods in the library FileManager.class and this method can be non-static, however, it is not appropriate

3.  Class Definition Defects (CD)

❑https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Does each class have appropriate constructors?

In class Validate doesn't have a constructor.

❑ https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Do any subclasses have common members that should be in the superclass?

The program doesn't have inheritance

❑ https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Can the class inheritance hierarchy be simplified?

The program doesn't have inheritance

4.  Data Reference Defects (DR)

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ For every array reference: Is each subscript value within the defined bounds?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ For every object or array reference: Is the value certain to be non-null?

5.  Computation/Numeric Defects (CN)

❑https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Are there any computations with mixed data types?

Only same types.

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is overflow or underflow possible during a computation?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ For each expression with more than one operator: Are the assumptions about order of evaluation and precedence correct?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are parentheses used to avoid ambiguity?

6.  Comparison/Relational Defects (CR)

❑https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ For every boolean test: Is the correct condition checked?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are the comparison operators correct?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Has each boolean expression been simplified by driving negations inward?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is each boolean expression correct?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are there improper and unnoticed side-effects of a comparison?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Has an "&" inadvertently been interchanged with a "&&" or a "|" for a "||"?

7.  Control Flow Defects (CF)

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ For each loop: Is the best choice of looping constructs used?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Will all loops terminate?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ When there are multiple exits from a loop, is each exit necessary and handled properly?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Does each switch statement have a default case?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are missing switch case break statements correct and marked with a comment?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Do named break statements send control to the right place?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is the nesting of loops and branches too deep, and is it correct?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Can any nested if statements be converted into a switch statement?

❑https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Are null bodied control structures correct and marked with braces or comments?

Doesn't have comment in methods.

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are all exceptions handled appropriately?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Does every method terminate?

8.  Input-Output Defects (IO)

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Have all files opened before use?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are the attributes of the input object consistent with the use of the file?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Have all files been closed after use?

❑https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Are there spelling or grammatical errors in any text printed or displayed?

In Window Terms of use exist error gramaticals.

❑https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are all I/O exceptions handled in a reasonable way?

9.  Module Interface Defects (MI)

❑https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are the number, order, types, and values of parameters in every method call in agreement with the called method's declaration?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Do the values in units agree (e.g., inches versus yards)?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ If an object or array is passed, does it get changed, and changed correctly by the        called method?

10.  Comment Defects (CM)

❑ https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Does every method, class, and file have an appropriate header comment?

Does Not comments

❑https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Does every attribute, variable, and constant declaration have a comment?

Does Not comments

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is the underlying behavior of each method and class expressed in plain language?

❑https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Is the header comment for each method and class consistent with the behavior of the method or class?

Does Not comments

❑ Do the comments and code agree?

Does Not comments

❑ Do the comments help in understanding the code?

Does Not comments

❑https://lh6.googleusercontent.com/eJZOABDACw6h55w1gcmrRahg-cO_bdh0neO3jK4Ofs8mJUMpqVjosd3RBs_hSHOf3lja7uPZ9wRRYqUeyv9GN0YHjQr3hMY6srIH33YZFHf0I4Gr-ejcBubKfhPOuKLN_ANvnFA0 Are there enough comments in the code?

Does Not comments

❑ Are there too many comments in the code?

11.  Layout and Packaging Defects (LP)

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is a standard indentation and layout format used consistently?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ For each method: Is it no more than about 60 lines long?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ For each compile module: Is no more than about 600 lines long?

12.  Modularity Defects (MO)

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is there a low level of coupling between modules (methods and classes)?

❑https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is there a high level of cohesion within each module (methods or class)?

❑ Is there repetitive code that could be replaced by a call to a method that provides the behavior of the repetitive code?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are the Java class libraries used where and when appropriate?

13.  Storage Usage Defects (SU)

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are arrays large enough?

❑https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are object and array references set to null once the object or array is no longer needed?

14.  Performance Defects (PE)

❑ Can better data structures or more efficient algorithms be used?

Is possible, if the programmers want it.

❑https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are logical tests arranged such that the often successful and inexpensive tests precede the more expensive and less frequently successful tests?

❑ Can the cost of recomputing a value be reduced by computing it once and storing the results?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Is every result that is computed and stored actually used?

❑ Can a computation be moved outside a loop?

❑ Are there tests within a loop that do not need to be done?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Can a short loop be unrolled?

❑ Are there two loops operating on the same data that can be combined into one?

❑ https://lh6.googleusercontent.com/Ksv0jwa9QZe2rdsz2IZWPDEwPOQiiqC-ffMdsSdvtlWxNoh0fZMq228jwdmI3aRTnjDPtwpqZ-UPrEMYisoyKMhkg1gm3x4yIZBtf4D3GHZEYo1PvCQTrF5okmiKrk_3B9GvJVv_ Are frequently used variables declared register?

❑ Are short and commonly called methods declared inline?

**Additional notes:**

When you change your password if entering an incorrect password for 2 times on the third attempt entering the correct one the program closes.

After adding a new reagent, the program does not advance. If we restart the program and we want to see the reagent table, it does not advance in the execution.

For the error of adding new reagent, it is not possible to enter the Order menu.

For the error of adding new reagent, it is not possible to enter the Statistics menu.

In window Registration cell phone text Field you should let enter only ten numbers.

The problem of new reagent persists and does not allow other actions in other profiles.

Update IEEE, Use Case Diagram , does not have requirement change password for example.

Update Class Diagram, in diagram exist User class but in code not exist.