- **Proposal design of the project: which classes to use , how to read the file with the most efficient way .**
- **Implementation notes.**

- The main method gets 1 parameter, checks whether the file is legal or not.
    - 0 if the file is legal, 1 if it is illegal, 2 if IOE error,
    - you should print errors with the system.err()
    - The line can be also an empty line and a comment line (if there was it should be in a single line).
    - "{" should be with the declaration of the method in the same line, and "}" in a single line.
    - In case we use "final", the variable must get a value in the same line (final int a= 5;→ legal, final int a; →illegal)
    - The declaration of the variable is legal without initializing it in the same line iff the next line of It, is an initialization or the variable does not used in the method.

^^ Proposal ideas of implementation:

- To save existing variable names (global variables) and method names in the first time we read the given file (in order to identify which variables/methods are legal to deal with)
- Use buffer as a reader of your file.
- Proposal design:
    - Abstract Class(Blocks):it should get in it's constructor(Array list of the variables in the relevant

scope), with sub-classes: METHOD BLOCK, IF BLOCK,
WHILE BLOCK, GLOBALBLOCK
- Each "variable" should contain the data: Type, name,
value, modifier (whether it final or not)- you can save
these data in a list ,else you can make a variable object
which contains these data.
- In each "block" class we will have an array list which
contains the current block variables and the "previous"
block variables.
** Block1 Should be the global scope

Example: in the supplied file 501.txt

Block1 : (GLOBAL) ArrayList1:[int,a,5,true],
ArrayList2:[int,b,a,5, true], ArrayList3: [string, s, null or
any special value you want, false]

CurrentArrayList : [ArrayList1, ArrayList2, ArrayList3]

Block2 : (METHOD) ArrayList4:[ ]

CurrentArrayList : [ArrayList1, ArrayList2, ArrayList3,
ArrayList4]

Block3 (IF/WHILE) ArrayList4: ArrayList5: []

CurrentArrayList : [ArrayList1, ArrayList2, ArrayList3,
ArrayList4, ArrayList5]

- In the same way, you should save the method names
with each method's parameters.
- -* method's parameters do not get a value when it is
declared, even if "final" appears as a modifier of the
parameter. (void foo(int c=0)   is not a legal
declaration. void foo(final int c=0) is not legal too.

- "line" classes : method lines, variable lines, comment
lines(up to you to decide whether it need a class or

not) , if& while lines. Each class should check all of the possibilities of such a "line".

- you can use "\s*" to split each line.
- A legal line is a line starts with :
  * final
  * int/double/char/String/boolean
  * if/ while
  *void
  *//
  * }
  *return;
  *variable name
  *empty line
   or any one of these words with whitespaces before.

- regexr.com is helpful (and enjoyable) .use it !