

This assignment is the fifth and final step in the comprehensive program that you will be completing all semester to develop computer software to solve a problem or improve an application in your approved area of interest. This assignment has two parts:

1. Revise and expand your proposal for your concept of the overall assignment that you want to pursue this semester to include the description of your implementation of recursion and two other significant improvements. JavaFX is now highly encouraged.
2. Add the recursions and two other significant improvements to your assignment as described in your proposal.
3. Be sure that you completely **comment** your source with both headers and in-line comments. Retain the following objects / data structures in your application.
 - a. At least three objects (can be in an array) from classes you create
 - b. Implementation of an inheritance structure and polymorphism
 - c. At least one single-dimension array structure
 - d. At least one two-dimension array structure
 - e. File I/O and exception handling

and retain the following **control structures** from assignment 1 in your project:

- a. Nested **if-else** and/or **switch** structures,
- b. Nested **while** or **do-while** loops, and
- c. Count control using one or more **for** loops

Submit your word file and all of your completely documented /commented source code for the Java class files using this assignment feature. NOTE: I suggest that you create a zip file containing your other files for this project. Do NOT submit other types of compressed files (e.g., RAR or JAR), I will only accept zip files.

Be sure to submit your complete set of files because you will on be able to submit the files once. NOTE: Remember that 25 points of your 50 point grade for assignment are reserved and based upon how this assignment fits in to your comprehensive overall goal for all five assignments. You must present assignment 5 and complete all five assignments in order to receive a score for the second portion of assignment 5.