

Please read the instructions CAREFULLY! Do not lose points because you did not understand something...ask questions if necessary.

This project tests your ability to do the following:

1. Follow all Shop Rules.
2. Adjust a short JAVA program to be easier to read and troubleshoot when necessary.
3. Create simple exception handling code.
4. Follow directions.

See the class **ExceptionHandling** given to you. Once you have completed making the necessary changes, it should read and parse a user-input number of String array elements into an integer array in such a fashion that ONLY the strings that can be parsed into an integer data type are contained in the integer array and all other strings are tossed aside/ignored. It then displays those integers to the screen. You should do the following:

1. Add a comment section at the top following the instructions in the Shop Rules document.
2. See that all lines in the class do not extend beyond the column 80 location.
 - a. Using your tab setting at 2.
3. See that there is no more than 1 statement per line.
4. Import any additional classes necessary, but no more than are necessary.
 - a. Note: A few imports already exist.
 - b. You will need more.
5. Look at the main method.
 - a. It contains a **throws** statement that must be removed before you submit.
 - b. It contains two array definitions.
 - i. One String array that contains the string values.
 - ii. One int array that will contain the integer values when the program is finished and executed.
 1. Notice that the int array calls a method to obtain the number of elements the user wants in the array...a maximum of 40.
 2. ENTER NO MORE THAN 40 AT THE PROMPT!
 - c. main also calls two additional methods for the processing.
6. Look at the method **getNumberOfIntegers ()**
 - a. Remove the **throws Exception** clause and HANDLE the possible exception using try/catch.
 - i. Hint: This is a checked exception
 - b. The try block must contain no more lines than are necessary.
 - c. You must handle the **EXACT** exception that may be thrown...do not handle the Exception class.
 - d. Your handling routine should simply print an appropriate message as to why the program is exiting AND then exit the program without displaying the stack trace...you know the statement that does this!
7. Look at the method **getIntegers (String, int)**
 - a. The method will throw an unchecked exception during its execution.
 - b. You must determine what this exception is AND use try/catch to handle the exception.

- c. You must handle the exact exception that is thrown...no others!
- d. The program MUST not exit when this exception is thrown, but continue to execute properly filling the integer array with integers and skipping the non-integer values
 - i. Hint: Think index. Don't overthink this one!
 - ii. Hint 2: No printing to the screen in this method at all.
 - iii. Hint 3: This is probably the hardest part of the project for some of you.
- 8. You must add a very brief description to each method coded describing exactly what the method does.
 - a. Be brief...one or two lines at the most.

General Specifications:

- All Shop Rules must be obeyed
- Existing code may **not** be changed other than indicated in this document. Ask if you have questions.
 - Changing code is a major infraction and will result in [-5] points off for each line changed unnecessarily.
 - Change no code!
- Each unnecessary line in a try statement [-1]
- Each unnecessary line in a catch statement [-1]
- No **throws** clauses allowed [-3 each]
- All syllabus project/lab rules apply. Please re-read!
- All Shop Rules apply. Please re-read!
- Do not archive your code
- Submit the source code only using Canvas
- Value: 50 Points
- Due Date/Time: 10:00 PM September 23
 - Do not submit late or incomplete!