Java Programming

3-6: Exceptions and Assertions

Practice Activities

Lesson Objectives:

- Use exception handling syntax to create reliable applications
- Recognize common exception classes and categories
- Create custom exception and auto-closeable resources
- Test invariants by using assertions
- Use try and throw statements
- Use the catch, multi-catch, and finally statements

Vocabulary:

Identify the vocabulary word for each definition below.

	A certain kind of try statement that contains resources.
	An invariant used to evaluate the assumptions of the class instances.
	Certain types of boolean statements that allow you to test specific aspects of your code.
	Key statement for handling exceptions in Java.
	An invariant that handles boolean statements to test internal values.
	An invariant that handles conditions in control flow statements.
	A statement that allows you to handle multiple exceptions.
	An optional addition to a try-catch statement that will always be executed.
	Run-time errors that can be handled inside the program.

Try It/Solve It:

1. You would like to write a program that will open a file called "myFile.txt". Write a try catch statement to open the file and catch the error if the file fails to open.

2. Create an exception called "myException" that prints out an error message when thrown.

3. Create a block of code that utilizes all three types of invariants and asserts their values.