COMP 1451 Lab 10-a

For this lab you will work in teams of two. Write three classes: InputReader, NotAnIntegerException, and NumberReader. You may use the following code for your InputReader class:

```
import java.util.Scanner;

public class InputReader {
	private Scanner scanner;
	public InputReader(){
		scanner = new Scanner(System.in);
	}

	/**This method returns the number typed by the user. If the
	number isnot an integer it throws a custom checked exception   that
	will be caught by the calling method.@throws
	InputMismatchException, NatAnIntegerException*/

	public int getNumber() throws NotAnIntegerException
	{
		int number = 0;
		try {
			number = scanner.nextInt();
		}
		// catch any non-integer input
		catch(java.util.InputMismatchException exc) {
			scanner.nextLine(); // clear the buffer
			throw new NotAnIntegerException("not a valid
                                                number!");
		}

		return number;
	}
}
```

`NotAnIntergerException` is a custom checked exception that you will write.
`NumberReader` has a single field, of type InputReader. It has a method that repeatedly prompts the user to type a non-zero whole number. The user will type a zero to stop the loop. After the loop has finished, the sum of the input numbers will be displayed on the screen. This method must have a **try catch block** to catch a thrown NotAnIntegerException and display an error message if the user types something that is not an integer.

Sample run:

```
Type a whole number, 0 to stop: e
not a valid number!
Type a whole number, 0 to stop: 1
Type a whole number, 0 to stop: 2
Type a whole number, 0 to stop: 0
The sum of numbers entered is 3
```

NOTE: Use a do/while loop for prompting and reading user input since you'll need to prompt at least once to test the input. See below.

```
boolean userWantsToContinue = true;
  do {
      try {
         // your code here
      }
      catch(NotAnIntegerException exc) {
          //you code here
      }
  } while(userWantsToContinue);
```

Demonstrate your completed project before leaving class. If you do not complete the lab in time then bring it with you to the next class so it can be checked off.