**Computer Science Notes**

## Chapter 13: Exception Handling

These notes are meant to accompany Introduction to Java Programming: Brief Version, eighth edition by Y. Daniel Lang.

**Book’s Statement of Skills:**

1. To distinguish

Consider the code below. It illustrates one solution to the problem of what to do if you prompt for an integer, but the user enters a sequence of characters that can not be parsed as an integer. The solution uses what is known as a **try-catch** block, and is an example of exception handling. In this example, the block of code in the **try** portion tries to parse **integerString** into an integer. However, if **integerString** does not contain a String that can be parsed into an integer, then the **parseInt()** method throws what is known as an exception; specifically, the **NumberFormatException** exception. An exception is like an error message. So, if this happens, the **catch** portion senses that error and does something else in response. In this case, it sends a message that an integer was not entered.

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| **import** javax.swing.JOptionPane;  /\*\* The Homework1007 class implements an application that  \* illustrates small programming ideas for HW10, Problem #7.  \*/  **public** **class** Homework1007  {  /\*\*HW10 Question 7  \* **@param** args is not used  \*/  **public** **static** **void** main(String[] args) {  **int** i;  **while** (**true**)  {  //prompt the user to enter an integer  String integerString =  JOptionPane.*showInputDialog*("Enter an integer (0 to quit):");  //Convert the String into an int  **try**  {  i = Integer.*parseInt*(integerString);  **if** (i == 0)  {  *xMethod*(2.5, 3.7);  **return**;  }  JOptionPane.*showMessageDialog*(**null**, "i = " + i);  }  **catch** (NumberFormatException ex)  {  JOptionPane.*showMessageDialog*(**null**, "That was not an integer");  }    }//end while loop  }//end main(String[])    **public** **static** **void** xMethod(**double** x, **double** y)  {  System.*out*.print(x + y);  **return**;  }//end method xMethod(double, double)  }//end class Homework1007 |