Test by inputting different word searches:

Test case 1 (testing specific command):
<terminate>   #should terminate program

Test case 2 (testing debug command):
<catalog>   #should output the dictionary with books as keys and values as number followed by URL

Test case 3 (testing debug command):
<titles>   #should output list of book titles

Test case 4 (testing numerical input):
24   #Should output "not found in any books." for all tested
0
1

Test case 5 (testing special characters input):
.   #Should output "not found in any books." for all tested
#

,
"" (press Enter)

Test case 6 (testing word searches):
Elizabeth   #should output 594 words in Pride and Prejudice.
elizabeth   #testing upper/lowercase. Should ouput 594 words in Pride and Prejudice only.
grouche   #should output "not found in any books"
the   #should output some value for all books
gutenberg   #should output approximately same value for all books
httpwwwgutenbergnet   #hand-test the following:
4 . The word httpwwwgutenbergnet appears 2 time(s) in The Adventures of Huckleberry Finn (link:
http://people.ischool.berkeley.edu/~tygar/for.i206/pg76.txt)
5 . The word httpwwwgutenbergnet appears 1 time(s) in Beowulf (link:
http://people.ischool.berkeley.edu/~tygar/for.i206/pg16328.txt)
6 . The word httpwwwgutenbergnet appears 1 time(s) in The Adventures of Sherlock Holmes (link:
http://people.ischool.berkeley.edu/~tygar/for.i206/pg1661.txt)
8 . The word httpwwwgutenbergnet appears 2 time(s) in Metamorphosis (link:
http://people.ischool.berkeley.edu/~tygar/for.i206/pg5200.txt)
10 . The word httpwwwgutenbergnet appears 2 time(s) in The Adventures of Tom Sawyer (link:
http://people.ischool.berkeley.edu/~tygar/for.i206/pg74.txt)

Test with different file formats:

Test case 1 (test different file type):
catalog.xlsx (excel file)   # results in TypeError. Should print 'Wrong file type. Must be .txt file.'

Test case 2 (testing different file contents):
testing.txt (text file with string 'qwerty') #should output 'not found in any books' for all words searched.

Test case 3 (testing different links):
testing1.txt (text file with book title and broken links)   #results in IOError [Errno 8]. Should print 'Broken URL(s)."

testing2.txt (text file with book title and different links like google.com, facebook.com, etc) #should output 'not found in any books' for all words searched.

What are the boundary cases?
One boundary case would be non-alphabetic characters such as special characters and punctuation, since those were supposed to have been removed. Another boundary case would be different input types such as a space or just pressing enter. Another boundary case would be words that may have had punctuation within them such as www.gutenberg.org. Finally, a boundary case would be different file types or file conents.

What happens if catalog.txt comes in an unexpected format?

If the catalog.txt comes in a .xlsx format, it cannot read the URL and results in "TypeError: must be encoded string without NULL bytes, not str." I created a "try" and "except" clause that will print 'Wrong file type. Must be .txt file.' if this is the case.

If the contents of the file are just a string with no URL, then there is no way to open and read a file from a URL. Thus, the program will never find a word in the book, and will keep print that the word does not appear in any book for every word searched.

What happens if a link is broken or the contents come in an unexpected format? etc.

If the link is broken, it results in IOError: [Errno socket error] [Errno 8] nodename nor servname provided, or not known. I created a "try" and "except" clause that will print Broken URL.' if this is the case.

If the links are not broken, but it refers to a different website such as google.com or youtube.com, it will just print that the word does not appear in any book. The program will print that for every word searched.