Avriel Lyon

10/28/2021

Test Cases Document

The first test case I generated was to meet the requirement of size 105 for the amount of books in the library. To generate this I created a separate c program that would output the amount of test cases, number of books, max pages, and the array of pages in each book. To make it easier to check over on if the output was correct, I did the following:

* The number of test cases was set to 1
* The number of books was set to 105
* The max pages to read was set to 105
* Each book in the array only had 1 page

Knowing this, even without testing with the P4 code, the amount of books that could be read would be 105. After creating the testing program, I ran it on Eustis and put the output into a sample.in file. Then ran the sample1.in to a sample1.out file to store the output of my P4 code. As expected, it produced 105 (100000) as the answer.

My second test case utilized a similar format to the first program, however I altered many of the values of the variables. Including the max pages to meet the requirement of making it greater than 1010.

* The number of test cases was set to 1
* The number of books was set to 105
* The max pages to read was set to 12000000000 (to be greater than 1010)
* Each book in the array had between 1-100 pages

Due to each book still having a relatively small amount of pages, the presumed output is still 105. The reason for the pages to be between 1-100 instead of just 1 like in the first program, was to verify that the time it took to process and sort the array did not go over the time limit. This test case also produced the answer of 105 (100000).