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CST8130 -Data Structures

Assignment #4- Test Plan

**Selection 1 : Clear/Reset**

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| Description | Input | Output |
| Clear an empty tree | Choice 1 | There are 0 node(s) |
| Clears files after accessing it | Choice 3:  Enter file to access: oliver.txt  Choice 1 | There are 0 node(s) |
| Clear tree after adding data | Choice 2:  Enter word to add :  **Data**  Choice 2:  Enter word to add :  **Java**  Choice 1 | There are 0 nodes |

**Selection 2 : Add from file /keyboard**

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| --- | --- | --- |
| Description | Input | Output |
| Add same word from keyboard multiple times with different (capitalization or symbols ) | Choice 2:  Enter word to add:  **It’s**  Choice 2:  Enter word to add:  **I’ts**  Choice 2:  Enter word to add:  **Its/**  Choice 2:  **it@s** | Choice 4:  Enter word to search: its  It occurs 4 times  Choice 5:  There is 1 node |
| Add numbers or symbols to tree from keyboard | Choice :2  1234 or @#$% or … | Choice 5:  There is 1 node |
| Add different words from keyboard | Choice 2:  Enter word to add :  **java**  Choice 2:  Enter word to add :  **C**  Choice 2:  Enter word to add :  **Communication**  Choice 2:  **Lab** | Choice 5 :  There are 4 nodes |
| Access file that does not exist or without the extension | Choice 3 :  Enter file to access: **oliver** | File does not exist ….  -returns back to main menu |
| Add word to file | Choice 3 :  Enter file to access: **oliver.txt**  Choice 2:  Enter word to add :  Hasan | Choise 5:  There are 11558 nodes |
|  |  |  |

**Selection 4: Search/Count**

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| --- | --- | --- |
| Description | Input | Output |
| Search and count for word does not exist in tree or file | Choice :4  Enter word to search for :  Rainbow | It does not exist  -return back to main menu |
| Search after adding same word | Choice 2:  Enter word to add:  **It’s**  Choice 2:  Enter word to add:  **I’ts**  Choice 2:  Enter word to add:  **Its/**  Choice 2:  **it@s** | Choise 4:  Enter word to search  Its or ITS  It occurs 4 times . |
| Search an empty tree | Choice 4 :  Enter word to search :  Rainbow | Tree is empty |
| Enter wrong value menu instead of 1, 2, 3 ,4 ,5 ,6 | Choice : 2.5 , abc or @#$ | Invalid option  Goes back to main menu |
| Search for a number in file | Choice 3 :  Enter file to access: **oliver.txt**  Choice 4:  Enter word to add :  14 | Occurs 104 times |

**Selection 5 : Display**

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| --- | --- | --- |
| Description | Input | Output |
| Display number of nodes before entering any data | Choice 5 | There is 0 nodes |
| Display number of nodes after accessing the file | Choice 3  Enter file to access : oliver.txt | There are 11557 nodes |
| Display word added with spaces ( it will only read the word before the space ) | Choice 2:  Enter word to add:  Ja va | It will add JA then gives invalid option |
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