

Text File: (Tree.txt)

Tree height it is measured from Leaf Node to Root Node, in upward direction.  
Tree depth it is measured from Root Node to Leaf Node in downward direction.

| Operations                                         | Expected output                                                                                                                    |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 1. Method documentLength (int l)                   | l=28                                                                                                                               |
| 2. Method uniqueWords (int u)                      | u=15                                                                                                                               |
| 3. Method total Occuranceparticular word(String w) | If w=leaf → output=2<br>If w=Node → output=4<br>if w=Home → output=0                                                               |
| 4. Method totalWordsForLength (int l, int t)       | If l=2 → t= 8 (with repetition)<br><u>OR</u><br>If l=2 → t=4 (without repetition)<br>Both are correct. Depends on your assumption. |

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|------|---|------|---|----|---|----|---|----------|---|------|---|------|---|-----------|---|----|---|----|---|--------|---|-------|---|--------|---|----------|---|
| 5. Method displayUniqueWords ()                             | <table><tr><td>Node</td><td>4</td></tr><tr><td>Tree</td><td>2</td></tr><tr><td>Root</td><td>2</td></tr><tr><td>it</td><td>2</td></tr><tr><td>is</td><td>2</td></tr><tr><td>measured</td><td>2</td></tr><tr><td>from</td><td>2</td></tr><tr><td>leaf</td><td>2</td></tr><tr><td>direction</td><td>2</td></tr><tr><td>in</td><td>2</td></tr><tr><td>to</td><td>2</td></tr><tr><td>height</td><td>1</td></tr><tr><td>depth</td><td>1</td></tr><tr><td>upward</td><td>1</td></tr><tr><td>downward</td><td>1</td></tr></table> | Node | 4 | Tree | 2 | Root | 2 | it | 2 | is | 2 | measured | 2 | from | 2 | leaf | 2 | direction | 2 | in | 2 | to | 2 | height | 1 | depth | 1 | upward | 1 | downward | 1 |
| Node                                                        | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| Tree                                                        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| Root                                                        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| it                                                          | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| is                                                          | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| measured                                                    | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| from                                                        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| leaf                                                        | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| direction                                                   | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| in                                                          | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| to                                                          | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| height                                                      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| depth                                                       | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| upward                                                      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| downward                                                    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| 6. Method occurrences (String w, LinkedList<WordOccur> l)   | <p>If w=it➡<br/>l=<br/>(1,3)<br/>(2,3)</p> <p>if w=Node➡<br/>l=<br/>(1,8)<br/>(1,11)<br/>(2,8)<br/>(2,11)</p>                                                                                                                                                                                                                                                                                                                                                                                                             |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |
| 7. Method checkAdjacent (String w1, String w2, boolean res) | <p>if w1=Tree, w2=height ➡ res=True<br/>if w1=leaf, w2=Root➡res=False</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |   |      |   |      |   |    |   |    |   |          |   |      |   |      |   |           |   |    |   |    |   |        |   |       |   |        |   |          |   |