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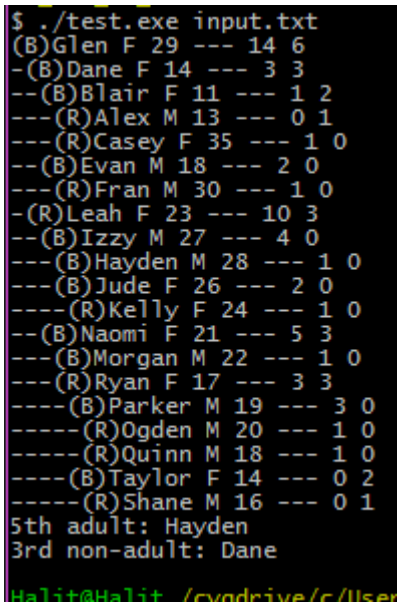
BLG 335E HW5 REPORT

1)Screenshot.

For the given input.txt input, output is:



Necessary explanations are given as the comments in source file.

2)Updating a name in RB tree.

First I would search for the node i wanted to change in RB tree. After finding the node, I would delete it, then fix the modifying operations. After that we can insert the updated version of the deleted node and modify the tree if necessary.

3)Incrementing ages of all people in RB tree.

Since the ages wont affect the tree's RB properties as the key is names not ages, I would traverse the array in a way that when i reach a dead leaf at both sides, I would increment the age update the adult and non_adult counters of that node and turn back to parent to first update it and second check if needs any more updates. The last person to update will be the head node.