C Option

Reading records from a file.

Read Moutafis from file.

Creating new tree starting with: Moutafis, 295-1492

Inserting Moutafis as left child of zzzzzzzzzz

Read Ikerd from file.

Inserting Ikerd as left child of Moutafis

Read Gladwin from file.

Inserting Gladwin as left child of Ikerd

Read Robson from file.

Inserting Robson as right child of Moutafis

Read Dang from file.

Inserting Dang as left child of Gladwin

Read Bird from file.

Inserting Bird as left child of Dang

Read Harris from file.

Inserting Harris as right child of Gladwin

Read Ortiz from file.

Inserting Ortiz as left child of Robson

Found customer Ortiz, 584-3622 iteratively.

Found customer Ortiz, 584-3622 recursively.

Could not find Penton iteratively.

Could not find Penton recursively.

Found customer Ikerd, 291-1864 iteratively.

Starting inorder traversal from: Ikerd, 291-1864

Moutafis, 295-1492

Ortiz, 584-3622

Robson, 293-6122

Bird, 291-7890

Dang, 295-1882

Gladwin, 295-1601

Harris, 294-8075

Ikerd, 291-1864

Reading records from a file.

Read Avila from file.

Inserting Avila as left child of Bird

Read Quijada from file.

Inserting Quijada as right child of Ortiz

Read Villatoro from file.

Inserting Villatoro as right child of Robson

Starting inorder traversal from: Moutafis, 295-1492

Ortiz, 584-3622

Quijada, 294-1882

Robson, 293-6122

Villatoro, 295-6622

Avila, 294-1568

Bird, 291-7890

Dang, 295-1882

Gladwin, 295-1601

Harris, 294-8075

Ikerd, 291-1864

Moutafis, 295-1492

Starting pre order traversal iterative

Moutafis, 295-1492

Ikerd, 291-1864

Gladwin, 295-1601

Dang, 295-1882

Bird, 291-7890

Avila, 294-1568

Harris, 294-8075

Robson, 293-6122

Ortiz, 584-3622

Quijada, 294-1882

Villatoro, 295-6622

Starting post order traversal iterative from: Moutafis, 295-1492

Avila, 294-1568

Bird, 291-7890

Dang, 295-1882

Harris, 294-8075

Gladwin, 295-1601

Ikerd, 291-1864

Quijada, 294-1882

Ortiz, 584-3622

Villatoro, 295-6622

Robson, 293-6122

Moutafis, 295-1492

B Option

Found customer Robson, 293-6122 iteratively.

Deleting found item and returning space to the heap.

Swapping record Villatoro, 295-6622 into Robson, 293-6122's node

Starting inorder traversal from: Moutafis, 295-1492

Ortiz, 584-3622

Quijada, 294-1882

Villatoro, 295-6622

Avila, 294-1568

Bird, 291-7890

Dang, 295-1882

Gladwin, 295-1601

Harris, 294-8075

Ikerd, 291-1864

Moutafis, 295-1492

Found customer Moutafis, 295-1492 iteratively.

Deleting found item and returning space to the heap.

Swapping record Quijada, 294-1882 into Ortiz, 584-3622's node

Swapping record Ortiz, 584-3622 into Moutafis, 295-1492's node

Starting inorder traversal from: Ortiz, 584-3622

Quijada, 294-1882

Villatoro, 295-6622

Avila, 294-1568

Bird, 291-7890

Dang, 295-1882

Gladwin, 295-1601

Harris, 294-8075

Ikerd, 291-1864

Ortiz, 584-3622

Found customer Ikerd, 291-1864 iteratively.

Deleting found item and returning space to the heap.

Swapping record Quijada, 294-1882 into Ortiz, 584-3622's node

Swapping record Ortiz, 584-3622 into Ikerd, 291-1864's node

Reading records from a file.

Read Poudel from file.

Inserting Poudel as right child of Ortiz

Read Spell from file.

Inserting Spell as left child of Villatoro

Starting inorder traversal from: Quijada, 294-1882

Spell, 295-1882

Villatoro, 295-6622

Avila, 294-1568

Bird, 291-7890

Dang, 295-1882

Gladwin, 295-1601

Harris, 294-8075

Ortiz, 584-3622

Poudel, 294-1666

Quijada, 294-1882

Starting reverse in order traversal from: Quijada, 294-1882

Villatoro, 295-6622

Spell, 295-1882

Quijada, 294-1882

Poudel, 294-1666

Ortiz, 584-3622

Harris, 294-8075

Gladwin, 295-1601

Dang, 295-1882

Bird, 291-7890

Avila, 294-1568

Starting pre order traversal iterative

Quijada, 294-1882

Ortiz, 584-3622

Gladwin, 295-1601

Dang, 295-1882

Bird, 291-7890

Avila, 294-1568

Harris, 294-8075

Poudel, 294-1666

Villatoro, 295-6622

Spell, 295-1882

A Option

Starting post order traversal iterative from: Quijada, 294-1882

Avila, 294-1568

Bird, 291-7890

Dang, 295-1882

Harris, 294-8075

Gladwin, 295-1601

Poudel, 294-1666

Ortiz, 584-3622

Spell, 295-1882

Villatoro, 295-6622

Quijada, 294-1882

Starting post oder traversal recursive with: Quijada, 294-1882

Avila, 294-1568

Bird, 291-7890

Dang, 295-1882

Harris, 294-8075

Gladwin, 295-1601

Poudel, 294-1666

Ortiz, 584-3622

Spell, 295-1882

Villatoro, 295-6622

Quijada, 294-1882

The lab steps do not ask for this, but there is a grading check for a recursive preorder traversal.

All preorder traversals before this one use the iterative version.

This is just a demonstration that I created a working recursive preorder as well.

Starting pre order traversal recursive with:

Quijada, 294-1882

Ortiz, 584-3622

Gladwin, 295-1601

Dang, 295-1882

Bird, 291-7890

Avila, 294-1568

Harris, 294-8075

Poudel, 294-1666

Villatoro, 295-6622

Spell, 295-1882