Assignment – Trees

Comp310 Object oriented data structures in Java

# TopicS

tree applications and implementations

# Readings

Carrano: Chapters 23 – 25, 27

# Objectives

Understand the applications and implementations of Trees.

# Instructions

Select and implement one of the following projects:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Chapter | Project | Page | Tree Type | Application | ANALYSIS: Project-specific questions to answer in your JOURNAL |
| 24 | 9 | 626 | Binary | **Huffman Coding** | 1. Is this a binary search tree? Explain why or why not. 2. Would it make sense to “balance” the tree (see chapter 27)? Explain why or why not. |
| 25 | 11 | 667 | BST | **kd-tree** | 1. Could you implement the kd-tree as a Balanced Search Tree (see chapter 27)? Explain why or why not. |

# Summary

Each student must individually answer the following *(even if you worked in pairs)* in your Journal either in paragraph form or as answers to the numbered items:

1. **If you worked in pairs:**
   1. How did you “divide up” the work so that each student still met the objectives for the assignment (i.e., learned, understood and applied the concepts).
   2. What was your contribution?
   3. How did you coordinate code changes/testing?
   4. Other observations about working with a partner?
2. **Where did you have trouble with this assignment? How did you move forward? What topics still confuse you?**
3. **What did you learn from this assignment?***(Please be specific)*