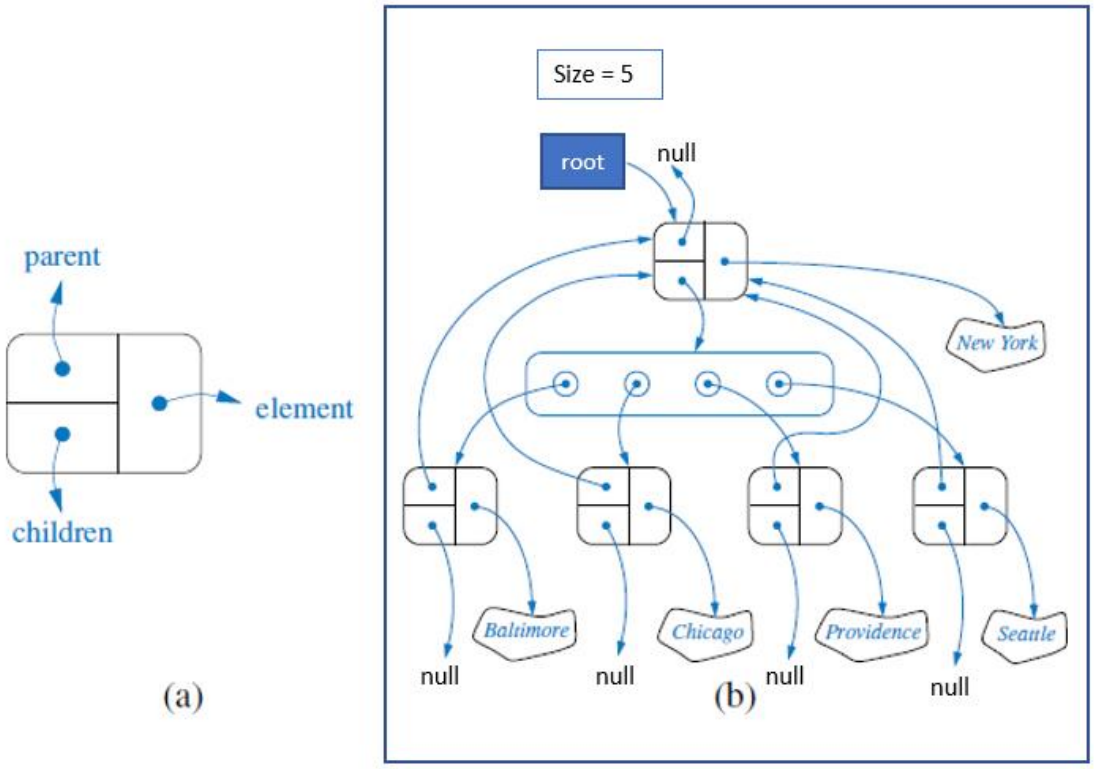
[SE2205] Mini-Project 3

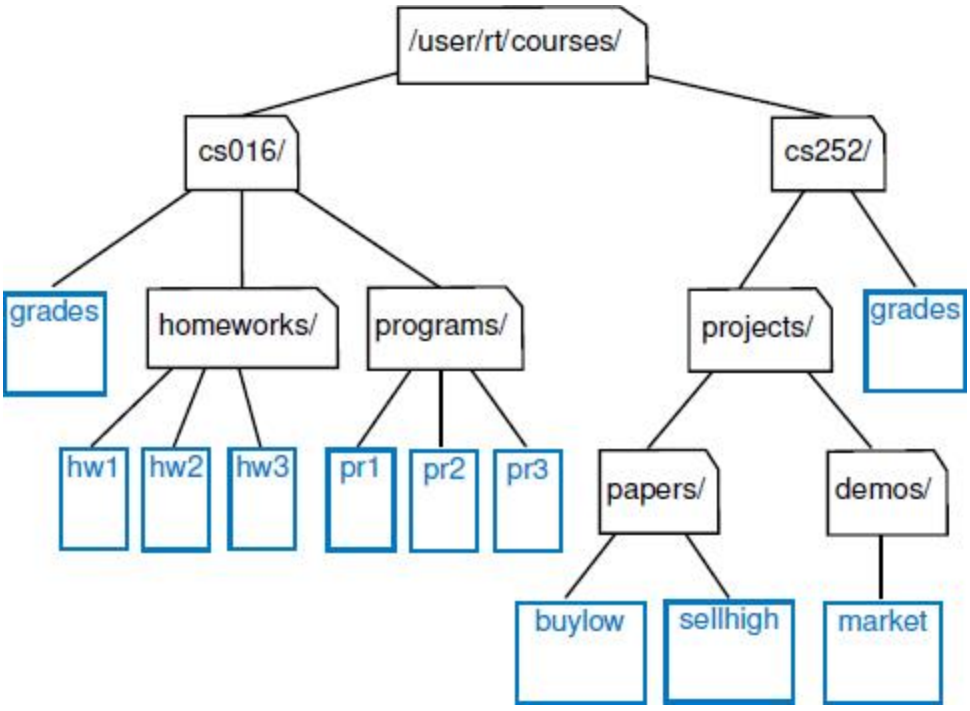


Implement the General Tree data structure using the linked structure demonstrated in the image above. Part (a) of the image demonstrates the internal node and Part (b) demonstrates the tree data structure, because the number of children is unknown you can use an ArrayList to store them and adding a child to a parent node would simply mean to add it to the array list.

- (If you want something more challenging for your own entertainment, you can use a positional list instead of an array list and allow adding a child before or after a sibling, not part of the assignment though)

To test the Tree implementation, create a new class with for the main method. In the main method, create an object of the Tree that you implemented and build a tree similar to the one shown in the image below. Print the elements after calling the pre-order and post-order methods, the output should match the expectations of the traversal algorithms that you learned before.

(Bonus: 3 marks) Enhance this program to take a directory path from the user and build the tree based on the files and directories under the given path.



Submission Instruction3

- Submit your Java files to the group assignment on OWL.
- Late submission will be accepted for up to 3 days late with 10% deduction for each day.

Regarding the group work

- Even though you are working on a group, you expected to understand all the code implemented in the project, so the group work is meant for collaboration and discussion.
- If a group reported any of their members to be uncommunicative or not participating, that member will be removed from the group and will not receive the mark for the submission.