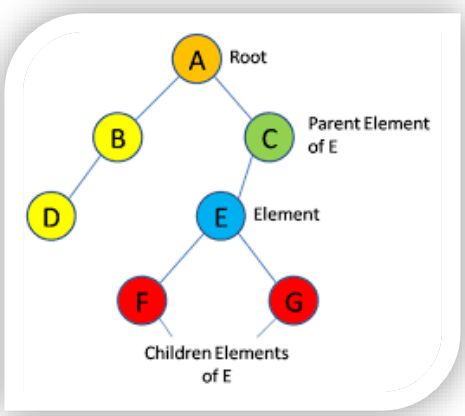
Bluegrass Community and Technical College

Programming Requirements Document

Illustration of Trees in Java

NARRATIVE DESCRIPTION

This assignment has a working sample application which uses the Java/JavaFX TreeItem and TreeView classes. Make sure you have read about the classes before proceeding.



Step 1: Import the ZIP file into your IDE

Using the ZIP file in Blackboard which is associated with this assignment, import the ZIP file (or the file it contains) into your IDE. You can compile each of the Java files and execute TreeViewSample4 as a JavaFX application to see a sample tree.

Step 2: Review the Sample Java Files - Customer

Review the Customer.java file. It contains no documentation or security. Using what you have learned in class about secure coding. Tasks to do:

- Fully document the Customer class
- Using what you have learned in Java I and Java II about secure coding (even it's only what you know from Java II), add security to the Customer class

Step 3: Review the Sample Java Files – TreePane4

Review the TreePane4.java class. It contains no documentation. Using what you have learned from your readings this week:

- Fully document the TreePane4 class.
- AT A MINIMUM, complete the comment blocks provided. Add more as needed.

Step 4: Review the Sample Java Files – TreeViewSample4

Review the TreeViewSample4.java class. It contains no documentation. Using what you have learned from your readings this week:

- Fully document the TreeViewSample4 class.
- AT A MINIMUM, complete the comment blocks provided. Add more as needed.
- *Run this class as a JavaFx application to see the tree displayed.*

Step 5: Describe the other files in the ZIP folder

Create a Word or PDF file and explain the purpose of each of the following ancillary files in the ZIP file:

- Customer.csv
- folder.png
- MasterCard.png

- people.png
- Visa.png

In the same Word or PDF file, explain how you would change TreePane4 to display a tree by state, sex (second item in the file), and name. For example, the tree branches into state nodes, under each state are nodes which indicate male and female, and under each of those are the names of the individuals.

For grading, ZIP all the files provided to you after they are updated PLUS the Word/PDF file that you created. Submit the ZIP file for grading.

New Concepts Assessed and Illustrated (in addition to any previously learned)

- Tree data structures
- TreeItem class
- TreeView class

Software Requirements

R1: The Customer class is fully and professionally documented. The documentation correctly explains the code is precedes.
R2: The Customer class has been modified to be secure in a correct manner.
R3: The TreePane4 class is fully and professionally documented. The documentation correctly explains the code is precedes.
R4: The TreeViewSample4 class is fully and professionally documented. The documentation correctly explains the code is precedes.
R5: The Word/PDF file correctly describes the auxiliary files for this application.
R6: The Word/PDF file correctly describes how the tree could be changed to display by state, sex, and name.

Security Considerations

The Customer and TreePane4, if needed, classes should be updated to include secure coding.