

Algorithms Used

Red-Black tree algorithm – Java TreeMap

Linear Iterations – Switch Statements

Core Concepts

I chose to code this program in a functional programming way for the operations because to me it made the most sense from a secure standpoint. The 'Model' class implements a 'SortedTree' object that is instantiated to a 'TreeMap' to allow for sorting in an ascending manner. This sorting is done by a call to the 'Comparator' class's 'compare' method in the 'TreeMaps' constructor. The 'Feature' class implements a 'Scanner' object and returns the value produced from the 'Model' class. Then the 'Menu' class is used to implement the 'Exceptions' needed and perform the menu navigational logic. The 'Menu' class is then called by the 'main' method by using a 'Menu' class object. Each class only has one import from the Java standard library.