**ASSIGNMENT 1 REPORT**

The object-oriented design I opted for was a binary search tree due the time complexity of the code as a large input size was being handled from the knowledge base. An array version of the same code was also made and the difference in efficiencies can clearly be noticed when loading the knowledge base.

**Classes for BST**:

* BSTNode – This class served the purpose of holding all the data required for a single node as well as a left and right pointer that would allow it to be linked to nodes that were added in future.
* BinarySearchTree – This class served the purpose of defining the structure of the binary search tree as well as the methods such as inserting and sorting the nodes once they had been inserted into the tree. This class would create the tree data structure consisting of several nodes of the BSTNode type.
* GenericsKbBSTApp – This class would be used to provide a menu to the user that they would make use of to load the knowledge base as well as add and search for data within the knowledge base. This class would create the binary search tree and load the given knowledge base to populate the binary search tree.
* GenericsKbArrayApp – This class contains all the code mentioned above but uses an array instead of a binary search tree. It has a separate node format within the class as it does not need to make use of the pointer system as the Binary search tree nodes require.