

Binary Search Tree – Abstract Datatype Implementation (Movie Sorter)

Movie is an Abstract Datatype that models a movie DVD in the library. A movie has a title, genre, classification, duration (in minutes), the total number of copies of the movie DVDs in the library, and the number of available DVDs of the movie currently in the library.

MovieCollection is another Abstract Datatype, which is used to store and manipulate all the movies in the library. The basic data structure that is used in the *MovieCollection* implementation is a Binary Search Tree (BST). A node of the BST is modelled by an inner class, namely *BTreeNode*, in *MovieCollection.cs*. A node has three fields, left child reference (*lchild*), right child reference (*rchild*) as well as a *Movie* object. Each node in the BST is an instance of *BTreeNode* class.

System Requirements:

- C# programming language, using Visual Studios 2022, using .NET 6.0.
- The C# interfaces and skeleton implementations cannot be changed.