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Project One – Page Four

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//global declarations

DOUBLE strToDouble(string str, char ch) //forward declaration

STRUCT course //Define a structure to hold course information

STRING courseNumber //use string incase course’s numbers have letters in them

STRING courseTitle

STRING prerequisites

Course function

INITIALIZE csv parser with path

TRY

IF line has at least 2 elements

FOR loop to read through file

course.courseNumber = to csv location

course.courseTitle = to csv location

course.prerequisites = to csv location to end of line

CATCH

ERROR if files wont open or read

DEFINE quicksort function

SET middle to zero

IF beginning number is greater or equal to end number

RETURN

SET middle to partition function

RUN quicksort function

CLASS BinarySearchTree // create binary search tree class

PRIVATE

DEFINE private functions

PUBLIC

DEFINE public functions

BinarySearchTree::BinarySearchTree function // default constructor

Root is equal to nullptr

BinarySearchTree::~ BinarySearchTree function //Destructor

Erase nodes beginning

COURSE BinarySearchTree::PrintCourse(string courseID) function

SET current node equal to rool

While look downwards until bottom reached to courseID match found

IF match found

PRINT courseID, courseTitle, prerequisites

RETURN current course

ELSE IF smaller than current node

TRAVERSE left

ELSE Traverse Right

RETURN course

COURSE BinarySearchTree::PrintAll(Node\* node) function

IF node is not equal to nullptr

PrintAll the left

PRINT courseTitle and prerequisites

PrintAll the right