//Pseudocode for a menu

Int Main() {

Display 1 to load file into vector, 2 to load file into hash table, 3 to load file into binary search tree

Display 4 to print course list from vector, 5 to print course list from hash table, 6 to print course list from binary search tree

Display 7 to print inputted course from vector, 8 to print inputted course from hash table, 9 to print inputted course from binary search tree

Display 10 to exit

Switch statement for user inputted number

Case 1:

Call LoadDataVector()

Case 2:

Call LoadDataHashTable()

Case 3:

Call LoadDataBST()

Case 4:

Call PrintVector()

Case 5:

Call PrintHashTable()

Case 6:

Call PrintBST()

Case 7:

Ask user for courseID

Call PrintCourseVector(courseID)

Case 8:

Ask user for courseID

Call PrintCourseHashTable(courseID)

Case 9:

Ask user for courseID

Call PrintCourseBST(courseID)

Case 10:

Exit

}

//Pseudocode for vector data structure

//function to load file data into a vector

Void LoadDataVector() {

Call OpenReadCloseFile(filepath, originalCourses)

Call ParseFile(originalCourses, parsedCourses, delimiter)

Call ParameterCheck(parsedCourses)

Call Prerequisite Check(parsedCourses)

Call CreateCoursesVector(parsedCourses, courseObjects)

}

//function to print course list from vector

Void PrintVector() {

Call PrintAllVector(courseObjects)

}

//function to print a given course from vector

Void PrintCourseVector(string courseID) {

Call PrintCourseInformationVector(courseObjects, courseID)

}

//Pseudocode for hash table data structure

//function to load file data into a hash table

Void LoadDataHashTable() {

Call OpenReadCloseFile(filepath, originalCourses)

Call ParseFile(originalCourses, parsedCourses, delimiter)

Call ParameterCheck(parsedCourses)

Call Prerequisite Check(parsedCourses)

Call CreateCoursesHashTable(parsedCourses, hashCourses)

}

//function to print course list from hash table

Void PrintHashTable() {

Call PrintAllHashTable()

}

//function to print a given course from hash table

Void PrintCourseHashTable(string courseID) {

Call PrintCourseInformationHashTable(courseObjects, courseID)

}

//Pseudocode for binary search tree data structure

//function to load file data into a binary search tree

Void LoadDataBST() {

Call OpenReadCloseFile(filepath, originalCourses)

Call ParseFile(originalCourses, parsedCourses, delimiter)

Call ParameterCheck(parsedCourses)

Call Prerequisite Check(parsedCourses)

Call CreateCoursesBST(parsedCourses, treeCourses)

}

//function to print course list from binary search tree

Void PrintBST() {

Set pointer to root node

Call PrintAllInOrder(root)

}

//function to print a given course from hash table

Void PrintCourseBST(string courseID) {

Call PrintCourseInformationBST(courseObjects, courseID)

}