COEN 448 Software Testing and Validation Assignment 1 – Input Domain Modeling and Unit Testing

Individual assignment, due by February 13th 23:59.

In this assignment, we aim to practise the input domain partition, input domain modeling and coverage strategies to produce unit test cases.

The source code attached is a data structure that implement an abstract data type ADTList. It has three different implementation Array-based List (AList), Link-based List (LList) and Double Link-based List (DList). Now please review and inspect the code of the remove() function in the ADTList which is implemented by each of the class AList, LList, DList.

The tasks are listed below.

1) Apply the Input Domain Modeling techniques to fill in the table of program characteristics and block values for the method remove() of any class that implements ADTList. Please include both interface and functionality based IDM for defining characteristics.

	b1	…	bn
Characteristics (interface-based IDM)			
Characteristics (Functionality-based IDM)			

2) Apply Each Choice Coverage (ECC) and list the generated combination in a table or a list.
3) Apply Basic Choice Coverage (BCC) and list the generated combination in a table or a list.
4) Program the code of the unit test for the combination by revising the ListJUnitTest.java and run the unit test code to show the test state.

Deliverables (create a single

- A report to document task 1), 2), 3) and the screenshot the running the unit test from the IDE.
- Source code of the ListJUnitTest.java