CS2302 - Data Structures

Summer 2019

Lab 2

Due Thursday, June 27, 2019

Consider the reference-based singly-linked lists defined in class.

1. Implement all the functions described in Table 4.1.1. in the textbook.
2. Implement the following functions:
   (a) *Copy(list)* Builds and returns a copy of *list*.
   (b) *ItemAt(list,i)* Returns the data item at position i in *list*.
   (c) *Pop(list,i=0)* Remove item at position i in *list*. If i is not specified, it removes the first item in *list*.
   (d) *Count(list,x)* Returns the number of times x appears in *list*.
   (e) *Index(list,x)* Returns the index of the first item whose value is equal to x *list*.
   (f) *Clear(list)* Removes all items from *list*.
   (g) *Sublist(list,start=0,end=GetLength(list))* Builds and returns a sublist of *list*, from element *start* to element *end* (not inclusive).
   (h) *Reverse(list)* Reverses the elements in *list* (in place).

As usual, write a report describing your work.