

Exercise 5.2.1

Write a program that will create and manipulates a linked list, as follows:

- Create a self-referencing data structure **struct node**, with members:
 - **int data**
 - **struct node *next;**
- Function 1: **int add(struct node** headRef, int new);**
 - Add a new node at the beginning of the list
- Function 2: **int del(struct node** headRef);**
 - Delete the node at the beginning of the list
- Function 3: **void printList(struct node* head);**
 - Print the linked list node
- Function 4: **int length(struct node* head);**
 - Print the length of the linked list
- Function 5: **void deleteList(struct node** headRef);**
 - Delete the entire linked list
- Function **main()**
 - declare **struct node *Head = NULL;**
 - create an infinite loop which asks the use for input on what to do
 - Call the appropriate function based on the user input

(a)dd {x} = add a new node with value x to the list, at the head of the list
(d)el = delete the first node of list
(l)ength = print the number of nodes in the list
(p)rint = print the complete list
(z)ero = delete the entire list
(e)xit = quit the program
what would you like to do?:

- Please save and submit your source code (.c file) solution.
- Solution file naming convention:
 - First_name_Last_name_exercise_number.c
 - Please use (-) to indicate the exercise number
 - Example: Haidar_Alaubiydy-5-2-1.c