

# CREATIVE PROBLEM SOLVING

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## LINKED LIST TEST – Decipher the Message

### Guidelines

1. Write entire code in main.c
2. No need to add any new header and .c file to CodeBlocks project.

### Exercise 1

Define a listNode structure that contains following members:

1. value - char
2. next – pointer of type structure listNode.

### Exercise 2

Implement following functions

1. createNode
2. insertInBegin
3. isEmpty
4. printAndDeleteBeginningElement
  - a. Print character stored in first node and Delete first node of the list.
  - b. If list is empty when we call this function - exit program by calling exit(1).

### Exercise 3

Implement main function to do the following:

1. Declare head of Linked List and initialize it with NULL.
2. Ask user to enter a string (Use array of fixed size – 200).
3. Loop over each character of the string and do the following:
  - a. If character is '-' then call printAndDeleteBeginningElement
  - b. For all other characters call insertInBegin
4. Verify the output.
5. Upload your program in google drive. Code->YourName->LinkedListAssignment

### SAMPLE TEST CASES

	Input	Output
Test Case 1	.oD--n-e--	Done.
Test Case 2	hO---uptu--thin	Oh
Test Case 3	O-uptu----t- si ----roc---r-ce--.t--	Output is correct.