

# PERFORMANCE, DATA STRUCTURES AND ALGORITHMS

Exercise 12



Exercise 12

CREATE A double linked list IN C

# Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PURPOSE

The purpose of this exercise is to give you practice with double linked lists in C.

For this exercise you are given the solution to exercise 11 as a starting point.

ACTIVITIES

Perform each of the following activities. If you have questions, issues, or doubts, please ask for help and do not just guess.

1. Modify functions as necessary so that they operate on a double linked list instead of a single linked list.
2. Rewrite the display\_list() function so that it takes advantage of the fact that the linked list is now a double linked list.
3. Test your program thoroughly to verify that it works correctly. Be sure to include special cases in your testing (e.g. display an empty list).
4. Document your code carefully.
5. In your Engineering Notebook, explain your approach to creating your code and your testing strategy. Include examples of the test input you used and the corresponding output from your program.
6. When you are ready to submit your work, first remove all intermediate files from your src directory.
7. Save and archive your finished C program and upload it to the LMS.