

Assignment

Week 20

CT103

Programming

Lab Week Beginning 2nd March 2015

Assignment Description

- *This week's assignment you are asked to write a program to create and manage a single linked list*
- *Each node in the list has 2 data members*
 - *Node ID (an integer)*
 - *Node name (a string)*
- *Each node will also need a pointer to the next node in the list*
- *Implement functions to perform the following:*
 - *Insert a node at the end of the list*
 - *Delete a node (given it's ID) from the list*
 - *Display the list*
 - *Search for a node (given it's ID)*

sample i/o

```
CA: C:\Windows\system32\cmd.exe

Welcome to demonstration of singly linked list
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Press 1 to INSERT a node into the list
Press 2 to DELETE a node from the list
Press 3 to DISPLAY the list
Press 4 to SEARCH the list
Press 5 to EXIT
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>> Enter your choice: 1
    Enter the node ID      : 101
Enter the node name       : Doc

>> Enter your choice: 1
    Enter the node ID      : 543
Enter the node name       : Grumpy

>> Enter your choice: 1
    Enter the node ID      : 72
Enter the node name       : Sleepy

>> Enter your choice: 3
node Details...
Emp No      : 72
Name        : Sleepy-----

node Details...
Emp No      : 543
Name        : Grumpy-----

node Details...
Emp No      : 101
Name        : Doc-----

>> Enter your choice:
```

sample i/o

```
C:\Windows\system32\cmd.exe
>> Enter your choice: 3
node Details...
Emp No      : 72
Name        : Sleepy-----
node Details...
Emp No      : 543
Name        : Grumpy-----
node Details...
Emp No      : 101
Name        : Doc-----
>> Enter your choice: 2
Enter the ID of node to be deleted: 543
Node deleted:
node Details...
Emp No      : 543
Name        : Grumpy-----
>> Enter your choice: 3
node Details...
Emp No      : 72
Name        : Sleepy-----
node Details...
Emp No      : 101
Name        : Doc-----
>> Enter your choice: 4
Enter the node ID to be searched for: 72
Key found:
node Details...
Emp No      : 72
Name        : Sleepy-----
```