DataStructure Introduction assignments

Mandatory

1. Refer the example code of single linked list.

a. Modify existing data structure to include below additional data members. Update all relevant existing functions to accommodate this member update and test.

{

char id[MAX\_ID\_LEN]; //let max id length be 5

int val;

}

b. Add a function below to perform search and update based on name (str) input.

extern int search\_update\_name(Node \*\*, char \*search, char \*replace);

c. Add functions below() to perform a sorted insert operation (ascending order) on the list based on name (str) and on val.

//insert based on name (str member) in increasing order

extern int sorted\_insert\_name(Node \*\*, char \*, int val);

//insert based on val in increasing order

extern int sorted\_insert\_val(Node \*\*, char \*, int val);

A screen shot of a computer program

Description automatically generated

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