**1. Refer the example code of single linked list.**

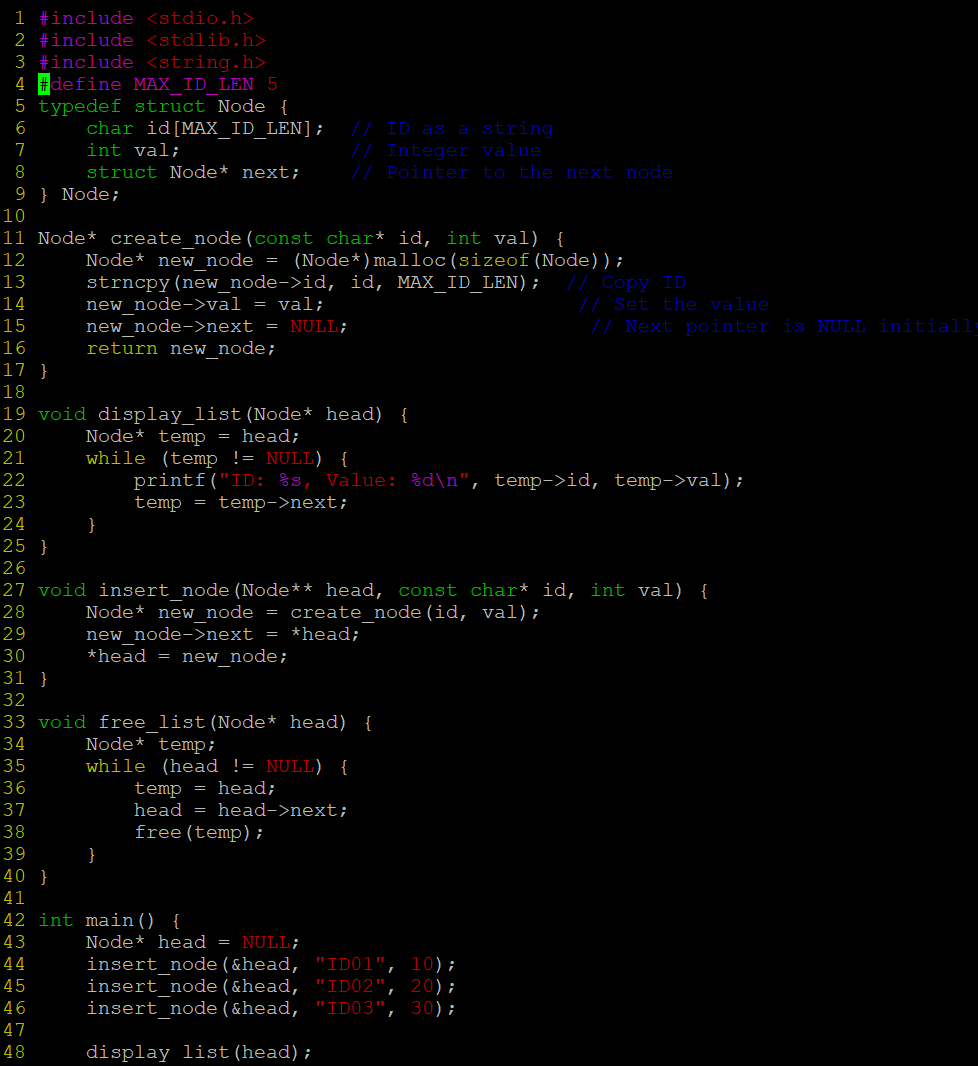
**a. Modify existing data structure to include below additional data members. Update all relevant existing functions to accommodate this member update and test.**

**{**

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

**int val;**

**}**

****

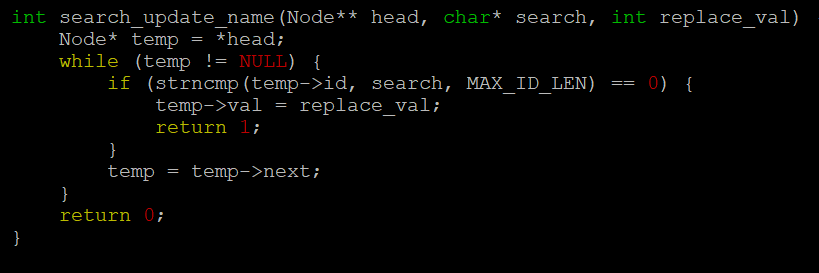
**OUTPUT:**

**A black background with white text

Description automatically generated**

**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);**

****

**OUTPUT:**

**A screenshot of a computer

Description automatically generated**

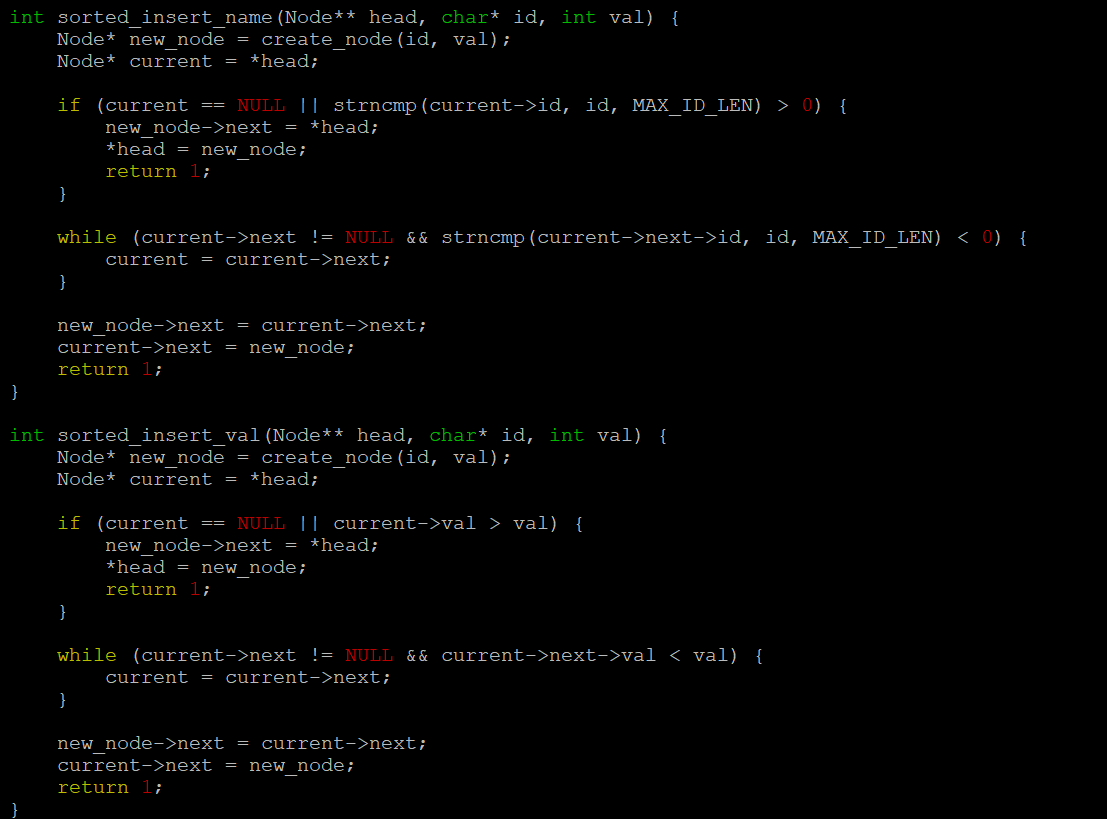
**c. Add functions below() to perform a sorted insert operation (ascending order) on the list based on name (str) and on val.**

**//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);**



**OUTPUT:**

