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Lab 3

**Lab3.c Code**

#include <stdio.h>

#include <string.h>

#define LEN 4

char**\*** strnsub **(**char **\***p**,** int n**);**

int main**()**

**{**

char line**[]** **=** "His textbook his was bought from that bookstore"**;**

char **\***p1**,** **\***p2**;**

//set p1 to the beginning of string line;

p1 **=** **&**line**[**0**];**

int length **=** strlen**(**line**);**

int p1index**,** p2index**;**

p1index **=** 0**;**

p2index **=** 1**;**

**while** **(**p1index **<** **(**length **-**1**))**

**{**

//set p2 to the position immediately after p1

p2 **=** **(**p1 **+** 1**);**

**while** **(**p2index **<** length**)**

**{**

**if(**strcmp**(**strnsub**(**p1**,** LEN**),** strnsub**(**p2**,** LEN**))** **==** 0**)**

**goto** done**;**

p2**++;**

p2index**++;**

**}**

p1index**++;**

p1**++;**

p2index **=** p1index **+** 1**;**

**}**

done**:** printf **(**"the first substring: %s\n"**,** strnsub**(**p1**,** LEN**));**

printf **(**"the second substring: %s\n"**,** strnsub**(**p2**,** LEN**));**

**return** 0**;**

**}**

// returns a string with the first n characters of string p

char**\*** strnsub **(**char **\***p**,** int n**)**

**{**

// write function definition here

char **\***sub **=** malloc**((**n**+**1**)\*(sizeof(**char**)));**

strncpy**(**sub**,** p**,** n**);**

sub**[**n**]** **=** '\0'**;**

**return** sub**;**

**}**

**Image of working lab**

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