**MARKS AWARDED: 90**

/\* CS1010 AY2011/2 Semester 2 Lab5 Ex1

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\* palindrome.c

\* Read in a list of strings,

\* and for each input string,

\* determine if it is a palindrome

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#include <stdio.h>

#include <string.h>

#include <ctype.h>

#define MAX 80

int is\_palindrome(char []);

void clean\_up(char []);

int main(void)

{

int i, n, count = 0;

char string[MAX];

printf("How many strings? ");

scanf("%d ", &n);

for (i=0;i<n;i++) {

fgets(string,MAX,stdin);

if (is\_palindrome(string))

count++;

}

printf("%d\n", count);

return 0;

}

// check if it is a palindrome

// return 1 if it is, 0 otherwise

int is\_palindrome(char string[])

{

int i, j, len;

clean\_up(string);

// printf("%s\n", string);

len = strlen(string);

for (i=0,j=len-1; i<len/2;i++)

if(string[i]!=string[j--])

return 0;

return 1;

}

// remove non-letters chars in phase,

// turn upper case letters to lower case letters

void clean\_up(char string[])

{

int i, j, len = strlen(string);

for (i=j=0; i<len; i++)

if (isalpha(string[i])) // check letter

string[j++] = tolower(string[i]);

string[j] = '\0'; // to make it a string

}