#include <stdio.h>

#include <stdlib.h>

#include <math.h>

void CreateArray (char \*, int);

int CheckLetters (char \*, char , int );

char DisplayDuplicateLetter(char \*, int);

int main(){

int numLetters,i;

printf("Please enter the number of letters (N)? ");

scanf("%d",&numLetters);

char \*array;

array = (char\*)malloc(sizeof(char)\*numLetters);

CreateArray(array, numLetters);

int controller = 0, returned;

char guess;

for(i=0;i<5;i++){

fflush(stdin);

printf("Guess the duplicate letter: ");

scanf("%c",&guess);

returned = CheckLetters(array,guess,numLetters);

if (returned){

printf("True char! Congrats!\n");

controller = 1;

break;

}

else{

printf("Wrong character, try again!\n");

}

}

if(controller)

printf("You win!");

else

printf("Sorry you loose!");

return 0;

}

void CreateArray (char \*array, int num){

int i;

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

array[i] = 'A' + (rand() % 26);

}

}

int CheckLetters (char \*array, char guess, int num){

int i, controller=0;

char duplicated;

duplicated = DisplayDuplicateLetter(array, num);

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

if(array[i] == guess && guess == duplicated){

controller = 1;

break;

}

}

return controller;

}

char DisplayDuplicateLetter(char \*array, int num){

int i,j;

char duplicated;

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

for(j=i+1;j<num;j++){

if (array[j] == array[i]){

duplicated = array[i];

}

}

}

printf("The duplicate letter: %c",duplicated);

}