A digital locker in the bank is protected with a security mechanism. To open the

locker a password of 9 characters is required. The input characters should be

accepted as 3x3 matrix and two diagonal characters of the matrix are concatenated

(refer to the example given below) and compared with the password already stored

in a character array for authentication. Write a C program to implement this logic

for password verification.

**Input to open the device**

**a b c**

**d e f**

**g h i**

**Concatenation of Diagonal characters: aeiceg**

#include <stdio.h>

#include <string.h>

#define PASSWORD "aeiceg"

int main() {

char matrix[3][3];

char diagonal[5];

printf("Enter 3x3 matrix:\n");

for(int i=0; i<3; i++) {

for(int j=0; j<3; j++) {

scanf(" %c", &matrix[i][j]);

}

}

diagonal[0] = matrix[0][0];

diagonal[1] = matrix[1][1];

diagonal[2] = matrix[2][2];

diagonal[3] = matrix[0][2];

diagonal[4] = matrix[2][0];

diagonal[5] = '\0';

if(strcmp(diagonal, PASSWORD) == 0) {

printf("Password matched!\n");

} else {

printf("Incorrect password\n");

}

return 0;

}

