

Palindrome string.

madam
level

dad

eye

↑ ↓
m a d a m
↑ ↓

$5/2 = 2$ comparisons max

↑ ↓
d a d
↑ ↓

$3/2 = 1$ comparison max

↑ ↓
e y e
↑ ↓

$3/2 = 1$ comparison max

↑ ↓
a x c a b c
↑ ↓

$6/2 = 3$ comparison max
ex) after 1st comparison

char str[] = "madam"; // len = 5, size = 6 bytes

int flag = 0;

int len = strlen(str); // 5

int j = len - 1; // 4

for (int i = 0; i < len/2; i++)

{ if (str[i] != str[j]) =

{ flag = 1;

break;

}

j--;

if (flag == 0)

printf("\n string is palindrome");

else printf("\n string is not palindrome");

m a d a m '\0' =
0 1 2 3 4
↑ ↓

i = 0; i < 5/2 i < 2 (0, 1) two times

flag ☒ 1

len

j

i = 0 i < 3 True str[i] != str[j] a != c True

String is not palindrome.

Assume a x c a b c '\0' str
↑ ↓