#include <stdio.h>

int main() {

char input\_string[50];

int state = 0;

int i = 0;

printf("Enter a string: ");

scanf("%s", input\_string);

while (input\_string[i] != '\0') {

switch (state) {

case 0:

if (input\_string[i] == 'b') {

state = 1;

}

break;

case 1:

if (input\_string[i] == 'a') {

state = 2;

} else if (input\_string[i] != 'b') {

state = 0;

}

break;

default:

break;

}

i++;

}

if (state == 2) {

printf("Accepted: String follows the pattern 'b...a'\n");

} else {

printf("Rejected: String does not follow the pattern 'b...a'\n");

}

return 0;

}