**Aim**

To develop a lexical analyzer in C that tests whether a given identifier is valid or not.

**Code**

c

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#include <stdio.h>

#include <ctype.h>

#include <string.h>

#define MAX\_LENGTH 100

// Function to check if a given string is a valid identifier

int isValidIdentifier(char \*identifier) {

// Check if the first character is a letter or underscore

if (!isalpha(identifier[0]) && identifier[0] != '\_') {

return 0; // Not a valid identifier

}

// Check the rest of the characters

for (int i = 1; identifier[i] != '\0'; i++) {

if (!isalnum(identifier[i]) && identifier[i] != '\_') {

return 0; // Not a valid identifier

}

}

return 1; // Valid identifier

}

int main() {

char identifier[MAX\_LENGTH];

// Input from user

printf("Enter an identifier: ");

scanf("%s", identifier);

// Checking if it's a valid identifier

if (isValidIdentifier(identifier)) {

printf("'%s' is a valid identifier.\n", identifier);

} else {

printf("'%s' is NOT a valid identifier.\n", identifier);

}

return 0;

}

**Output**

**Case 1: Valid Identifier**

pgsql

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