5.Develop a lexical Analyzer to test whether a given identifier is valid or not.

**PROGRAM:**

#include <stdio.h>

#include <stdbool.h>

#include <string.h>

#include <ctype.h>

#define MAX\_IDENTIFIER\_LENGTH 50

bool isValidIdentifier(char \*identifier) {

if (strlen(identifier) == 0) {

return false;

}

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

return false;

}

for (int i = 1; i < strlen(identifier); i++) {

if (!isalnum(identifier[i])) {

return false;

}

}

if (strlen(identifier) > MAX\_IDENTIFIER\_LENGTH) {

return false;

}

return true;

}

int main() {

char identifier[MAX\_IDENTIFIER\_LENGTH + 1];

printf("Enter an identifier: ");

scanf("%s", 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:**

