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

PROGRAM:

```c
#include <stdio.h>
#include <ctype.h>
#include <string.h>

int isKeyword(char *str) {
    char *keywords[] = {"int","float","char","double","return","if","else","for","while"};
    for (int i = 0; i < 9; i++)
        if (strcmp(str, keywords[i]) == 0)
            return 1;
    return 0;
}

int main() {
    char id[50];
    int i;

    printf("Enter identifier: ");
    scanf("%s", id);

    if (!isalpha(id[0]) && id[0] != '_') {
```

```c
            printf("Invalid identifier.\n");

            return 0;

        }


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

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

            printf("Invalid identifier.\n");

            return 0;

        }

    }


    if (isKeyword(id)) {

        printf("Invalid identifier (keyword).\n");

        return 0;

    }


    printf("Valid identifier.\n");

    return 0;

}
```

OUTPUT:

```
Enter identifier: hello123


Valid identifier.


=== Code Execution Successful ===
```