Assignment – 6

NAME: SOURABH PATEL
ADMISSION NO: U19CS082

Write a program to implement Lexical Analyzer(Lexer).

```
#include <bits/stdc++.h>
using namespace std;
int isKeyword(char buffer[])
{
    char keywords[49][10] = {"include", "asm", "double", "new", "switch", "auto",
"else",
    "operator", "template", "break", "enum", "private", "this", " case", "extern",
    "protected", "throw", "catch", "float", "public", "try", "char", "for",
"register",
    "typedef", "class", "friend", "return", "union", "const", "goto", "short",
"unsigned",
    "continue", "if", "signed", "virtual", "default", "inline", "sizedof", "void",
"delete",
    "int", "static", "volatile", "do", "long", "struct", "while"};
    int i, flag = 0;
    for (i = 0; i < 48; ++i)
    {
        if (strcmp(keywords[i], buffer) == 0)
        {
            flag = 1;
            break;
        }
    }
    return flag;
}
int main()
{
    char ch, buffer[15], operators[] = "+-*/%=><|&";
    ifstream fin("temp.c");
    int i, j = 0;
    if (!fin.is_open())
    {
        cout << "error while opening the file\n";
        exit(0);
    }
    while (!fin.eof())
    {
        ch = fin.get();
        for (i = 0; i < 10; ++i)
        {
            if (ch == operators[i])
```

```
                cout << ch << " is operator\n";
        }
        if (isalnum(ch))
        {
            buffer[j++] = ch;
        }
        else if ((ch == ' ' || ch == '\n') && (j != 0))
        {
            buffer[j] = '\0';
            j = 0;
            if (isKeyword(buffer) == 1)
                cout << buffer << " is keyword\n";
            else
                cout << buffer << " is indentifier\n";
        }
    }
    fin.close();
    return 0;
}
```

OUTPUT

```
C:\Users\Sourabh Patel\Desktop\assignment\82\SEM6\SS\ASS6\ss a6 code.exe
include is keyword
< is operator
> is operator
stdioh is indentifier
int is keyword
main is indentifier
printfHello is indentifier
System is indentifier
software is indentifier
return is keyword
0 is indentifier
```