NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

Cachar, Assam

B.Tech. VIth Sem

Subject Code: CS-316

Subject Name: Compiler Design Lab

Submitted By:

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Branch : CSE – B

1. **Write an introduction on "lex".**

➔ Lex is a program that generates lexical analyser. It is used with YACC parser generator. The lexical analyser is a program that transforms an input stream into a sequence of tokens. The lexical analyser is a program that transforms an input stream into a sequence of tokens.

Firstly, lexical analyser creates a program 'lex.l' in the Lex language. Then Lex compiler runs the 'lex.l' program and produces a C program 'lex.yy.c'. Finally, C compiler runs the 'lex.yy.c' program and produces an object program 'a.out'. 'a.out' is lexical analyser that transforms an input stream into a sequence of tokens.

2. **Write a lex program to recognize an alphabet.**

➔ **AIM:** TO WRITE A LEX PROGRAM TO RECOGNISE AN ALPHABET

CODE:

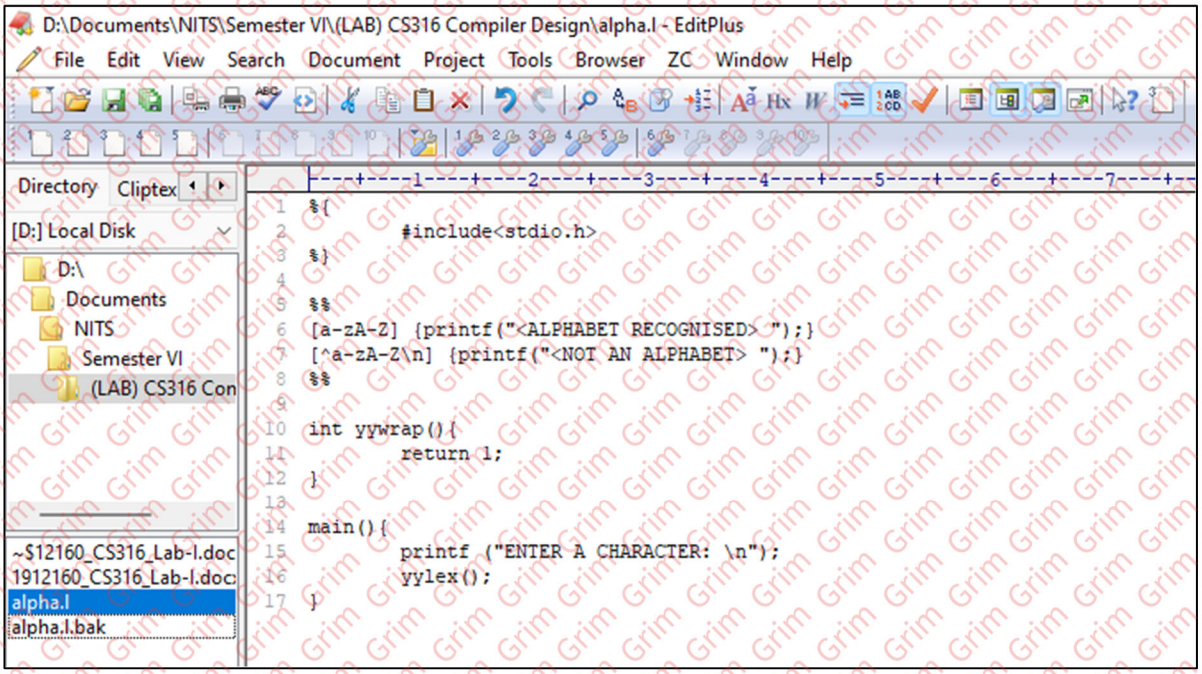
```
%{
    #include<stdio.h>
%}

%%
[a-zA-Z] {printf("<ALPHABET RECOGNISED> ");}
[^a-zA-Z\n] {printf("<NOT AN ALPHABET> ");}
%%

int yywrap(){
    return 1;
}

main(){
    printf ("ENTER A CHARACTER: \n");
    yylex();
}
```

CODE SCREENSHOT:



OUTPUT: