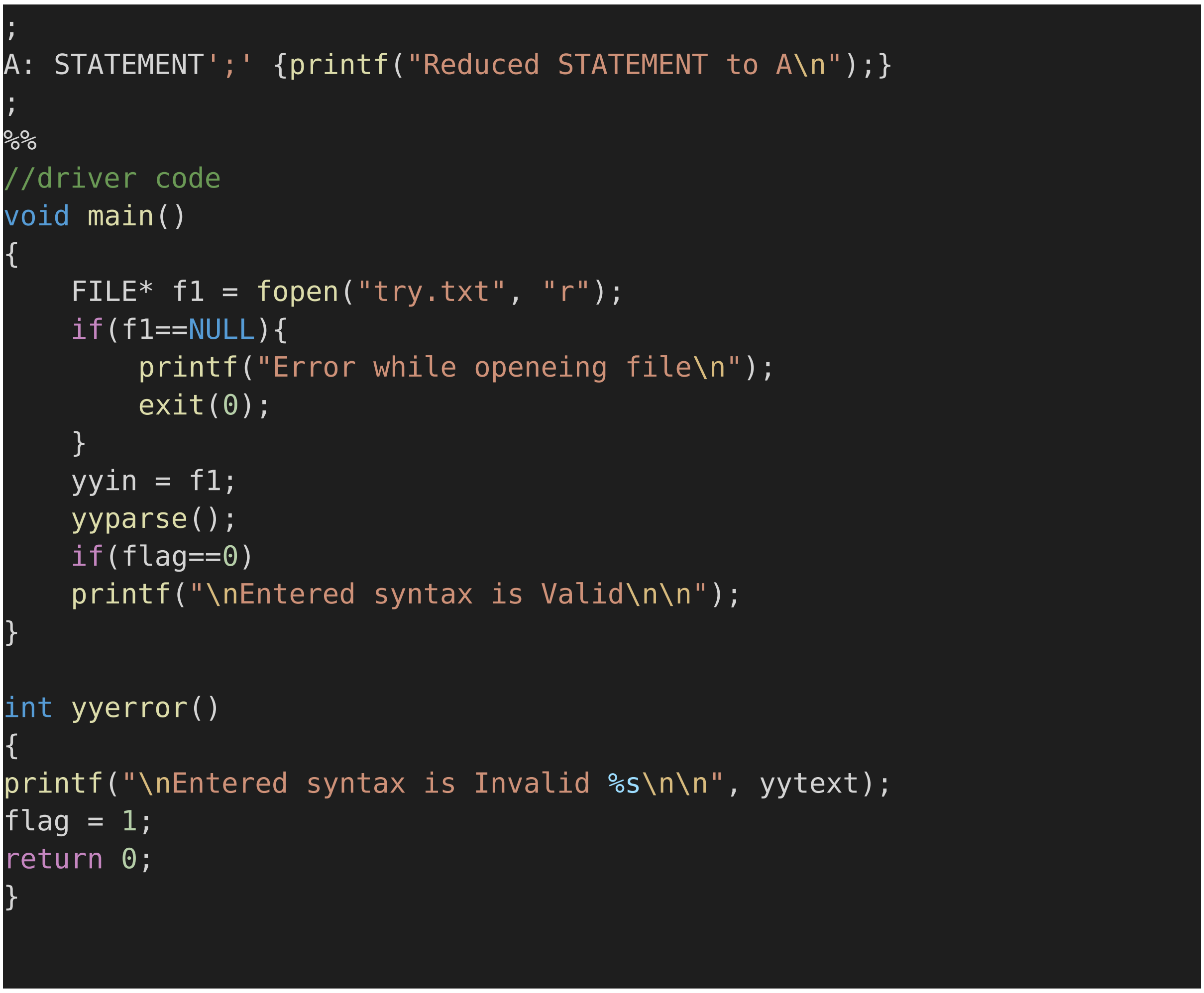
LEX

```
%{
    //Definition section
    #include<stdio.h>
    #include<string.h>
    #include<stdlib.h>
    #include "ifelse.tab.h"
%}
st [a-z0-9]*
%%
if return IF;
else return ELSE;
{st} return STATEMENT;
{st}<{st} return CONDITION;
[(,),{,},;] return yytext[0];
[\t] ;
[\n] ;
. yyerror();
%%
int yywrap(){
    return 1;
}
```

YACC

```
%{
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
int yylex();
extern char* yytext;
int yyerror();
int flag = 0;
extern FILE* yyin;
%}
%token IF ELSE STATEMENT CONDITION
%%
E: S E
| S {
    if(flag==0)
        printf("\nEntered expression is valid\n");
};
S: B {printf("Reduced B to S\n");}
| B ELSE'{'S'}' {printf("Reduced B ELSE'{'S'}' to S\n");}
| A {printf("Reduced A to S\n");}
;
B: IF'('CONDITION')''{'S'}' {printf("Reduced IF'('CONDITION')''{'S'}' to B\n");}
```



```
;
A: STATEMENT';' {printf("Reduced STATEMENT to A\n");}
;
%%
//driver code
void main()
{
    FILE* f1 = fopen("try.txt", "r");
    if(f1==NULL){
        printf("Error while openeing file\n");
        exit(0);
    }
    yyin = f1;
    yyparse();
    if(flag==0)
    printf("\nEntered syntax is Valid\n\n");
}

int yyerror()
{
printf("\nEntered syntax is Invalid %s\n\n", yytext);
flag = 1;
return 0;
}
```