PROGRAM.l

```
%{

#include<stdio.h>

#include "y.tab.h"

%}

//Patterns for English Language Tokens

verb is|are|was|were|be|being|been|does|do|did|will|would|should|can|could|have|has|go
|play|run|work|write|read

adverb very|slowly|gently|calmly|quietly

preposition to|from|above|behind|below|between

conjunction if|then|and|but|or|also|so

adjective beautiful|cool|hot|calm|delightful|great|small|tall|big|small|tiny|little|large

pronoun he|she|it|they|I|this|you

noun [a-zA-Z]+

%%

{verb} {return VERB;}

{adverb} {return ADVERB;}

{preposition} {return PREPOSITION;}

{conjunction} {return CONJUNCTION;}

{adjective} {return ADJECTIVE;}

{pronoun} {return PRONOUN;}

{noun} {return NOUN;}

"\n" {return NL;}

%%
```

//PROGRAM.y

```
%{
#include <stdio.h>
#include <stdlib.h>
int yylex();
int yyerror();
%}
%token NOUN PRONOUN ADJECTIVE ADVERB VERB PREPOSITION CONJUNCTION NL
%%
//Grammar for Simple and Compound Sentence
sentence : simple_sentence NL {printf("Parsed a simple sentence \n"); exit(0);}
          | compound_sentence NL {printf("Parsed a Compound sentence \n"); exit(0);}
          ;
simple_sentence : subject verb object
                | subject verb object prep_phrase
                ;
compound_sentence : simple_sentence CONJUNCTION object
                  | simple_sentence CONJUNCTION simple_sentence
                  | simple_sentence CONJUNCTION CONJUNCTION object
                  | compound_sentence CONJUNCTION simple_sentence
                  ;
subject : NOUN
        | PRONOUN
        | ADJECTIVE subject
        ;
verb : VERB
     | ADVERB VERB
```

```
        | verb VERB
        ;
object : NOUN
        | ADJECTIVE object
        ;
prep_phrase : PREPOSITION NOUN
            ;
%%
int main()
{
yyparse();
}
int yyerror()
{
printf("Invalid Statement\n");
}
int yywrap()
{
return 1;
}
```

student@system13:~$ lex rn16.l

student@system13:~$ yacc -d rn16.y

student@system13:~$ gcc lex.yy.c y.tab.c OR gcc -o rn16 lex.yy.c y.tab.c

student@system13:~$ ./a.out   OR ./rn16

I play cricket and chess