**Experiment No :-9**

**Lex code:  
%{**

**# include<stdio.h>**

**# include "y.tab.h"**

**%}**

**det "this"|"that"|"a"|"the"|"an"|"The"**

**noun "door"|"hole"|"bird"|"dog"|"kettle"|"birds"|"nests"|"boys"|"TV"|"hamburgers"|"Lois"|"pizza"|"table"|"book"**

**verb "wants"|"want"|"watch"|"singing"|"live"|"boils"|"barks"|"sleeps"|"sings"|"open"|"saw"|"paint"|"is"|"am"|"are"|"were"|"was"|"be"|"being"|"been"|"do"|"does"|"did"|"will"|"would"|"should"|"can"|"could"|"has"|"have"|"had"|"go"**

**preposition "from"|"with"|"on"|"to"|"from"|"behind"|"above"|"below"|"between"|"in"|"out"**

**pronoun "she"|"he"|"they"|"I"|"you"|"he"|"she"|"we"|"they"|"You"**

**conj ([aA][nN][dD])|([oO][rR])|([bB][uU][tT])**

**%%**

**{conj} {return CONJ;}**

**{det} {return Det;}**

**{noun} {return Noun;}**

**{verb} {return Verb;}**

**{preposition} {return Preposition;}**

**{pronoun} {return Pronoun;}**

**"." {return yytext[0];}**

**%%**

**int yywrap()**

**{**

**return 1;**

**}**

**Yacc Code:**

**%{**

**#include <stdio.h>**

**%}**

**%token Det Noun Verb Pronoun CONJ Preposition**

**%nonassoc Noun**

**%nonassoc Preposition**

**%nonassoc CONJ**

**%%**

**S1: S1 S**

**|S**

**;**

**S : SS '.' {printf("simple sentence\n");}**

**| CS '.' {printf("Compound sentence\n");}**

**;**

**CS : SS CONJ SS {printf("cs\n");}**

**| CS CONJ SS**

**;**

**SS : NP VP {printf("ss\n");}**

**| VP {printf("1\n");}**

**;**

**NP :Det Noun {printf("2\n");}**

**|Noun {printf("3\n");}**

**|Pronoun {printf("4\n");}**

**|Det Noun PP {printf("5\n");}**

**;**

**VP : Verb NP {printf("6\n");}**

**| Verb {printf("7\n");}**

**| VP PP {printf("8\n");}**

**;**

**PP : Preposition NP {printf("9\n");}**

**;**

**%%**

**void main()**

**{**

**yyparse();**

**}**

**int yyerror(char \* msg)**

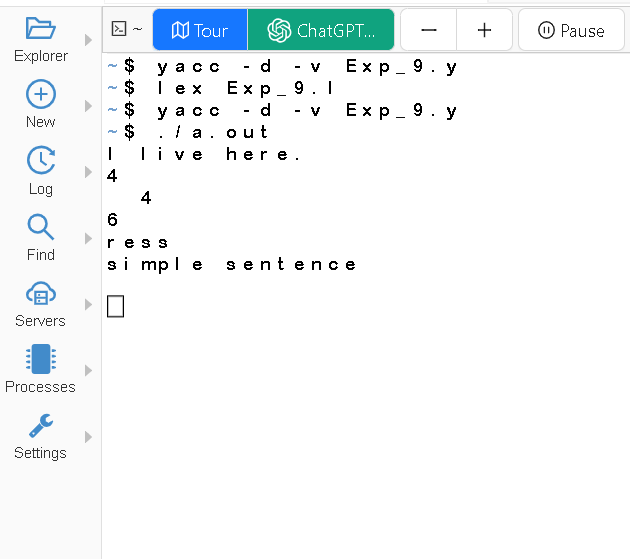
**{**

**printf("%s\n",msg);**

**return 1;**

**}**

**Output:-**

****