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| **Recognition of if Statement** |
| **Aim:** LEX and YACC program to recognize if statements in C. |
| **Program**  **Lex Program**  %{  #include "y.tab.h"  %}  %%  "if" { return IF; }  "<"|">"|"=="|"!="|"<="|">=" { return RELOP; }  [0-9]+ { return NUMBER; }  [a-zA-Z][a-zA-Z0-9\_]\* { return ID; }  \n { ; }  . { return yytext[0]; }  %%  int yywrap()  {  return 1;  }  **Yacc Program**  %{  #include<stdio.h>  #include <stdlib.h>  %}  %token IF NUMBER ID RELOP  %%  stmt : if\_stmt { printf("Entered if statement is valid\n"); exit(0);}  ;  if\_stmt : IF '(' cond ')'  ;  cond : x RELOP x  ;  x : ID  | NUMBER  ;  %%  int yyerror(char \*msg)  {  printf("Entered if statement is invalid\n");  exit(0);  }  void main ()  {  printf("Enter the statement: \n");  yyparse();  printf("\nValid\n\n");  } |
| **Result:** Implemented a LEX and YACC program to recognize if statements in C. |
| **Remarks:**(To be filled by faculty) |
| **Algorithm**  **Lex Program**   1. Start 2. In rules part separate if,identifiers,relation operators,digits. 3. Stop   **Yacc Program**   1. Start 2. Input the expression. 3. If the expression matches with the rules part print Entered if statement is valid else print invalid. 4. Stop   **Sample Input and Output** |