Aptitude   Engineering Mathematics   Discrete Mathematics   Operating System   DBMS   Computer Networks   Digital Lc

YACC program which accept strings that starts and ends with 0 or 1

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Problem: Write a YACC program which accept strings that starts and ends with Zero or One

Explanation:

[YACC (Yet another Compiler-Compiler)](#) is the standard parser generator for the Unix operating system. An open source program, yacc generates code for the parser in the C programming language. The acronym is usually rendered in lowercase but is occasionally seen as YACC or Yacc.

Examples:

```
Input: 001100
Output: Sequence Accepted


Input: 1001001
Output: Sequence Accepted


Input: 0011101
Output: Sequence Rejected


Input: 100110
Output: Sequence Rejected
```

Lexical Analyzer Source Code :

```
%{
    /* Definition section */
    extern int yylval;
%}

/* Rule Section */
%%
```

```
1 {yylval = 1; return ONE;}

.|\n {yylval = 2; return 0;}

%%
```

Parser Source Code :

```
%{
    /* Definition section */
    #include<stdio.h>
    #include <stdlib.h>
    void yyerror(const char *str)
    {
     printf("\nSequence Rejected\n");
    }

%}

%token ZERO ONE

/* Rule Section */
%%

r : s {printf("\nSequence Accepted\n\n");}
;

s : n
| ZERO a
| ONE b
;

a : n a
| ZERO
;

b : n b
| ONE
;

n : ZERO
| ONE
;

%%

#include"lex.yy.c"
//driver code
```

```
    yyparse();
    printf("\n");
    return 0;
}
```

Output:

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