CANDET ANDREI-GABRIEL GROUP 932 16 DEC 2020

Lex-Yacc lab 8

Source: https://github.com/cinnamonbreakfast/flcd/tree/main/lab8

Supporting emojis in code 😊

How to:

1. lex specif.lxi
2. gcc lex.yy.c -o exe -ll
3. ./exe < p1.pizza

specif.lxi

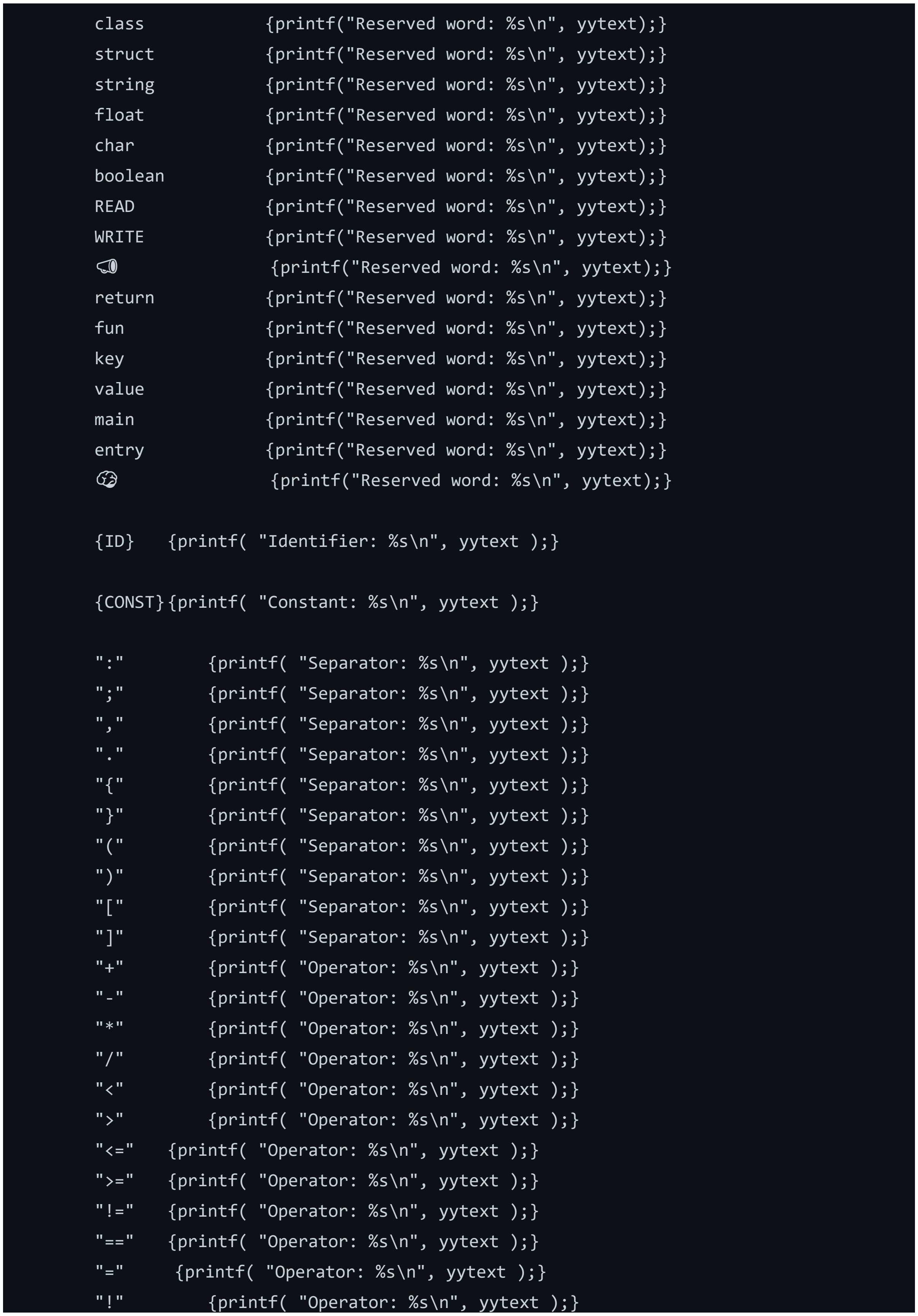
```
%{
        #include <stdio.h>
        #include <string.h>
        int lines = 0;
        %}

        %option noyywrap
        %option caseless

        DIGIT         [0-9]
        WORD          \"[a-zA-Z0-9]*\"
        NUMBER        [+-]?[1-9][0-9]*|0$
        CHARACTER     \'[a-zA-Z0-9]\'
        CONST         {WORD}|{NUMBER}|{CHARACTER}
        ID            [a-zA-Z][a-zA-Z0-9_]

        %%

        array           {printf("Reserved word: %s\n", yytext);}
        map             {printf("Reserved word: %s\n", yytext);}
        const           {printf("Reserved word: %s\n", yytext);}
        do              {printf("Reserved word: %s\n", yytext);}
        else            {printf("Reserved word: %s\n", yytext);}
        if              {printf("Reserved word: %s\n", yytext);}
        int             {printf("Reserved word: %s\n", yytext);}
        elif            {printf("Reserved word: %s\n", yytext);}
        while           {printf("Reserved word: %s\n", yytext);}
        for             {printf("Reserved word: %s\n", yytext);}
        range           {printf("Reserved word: %s\n", yytext);}
```

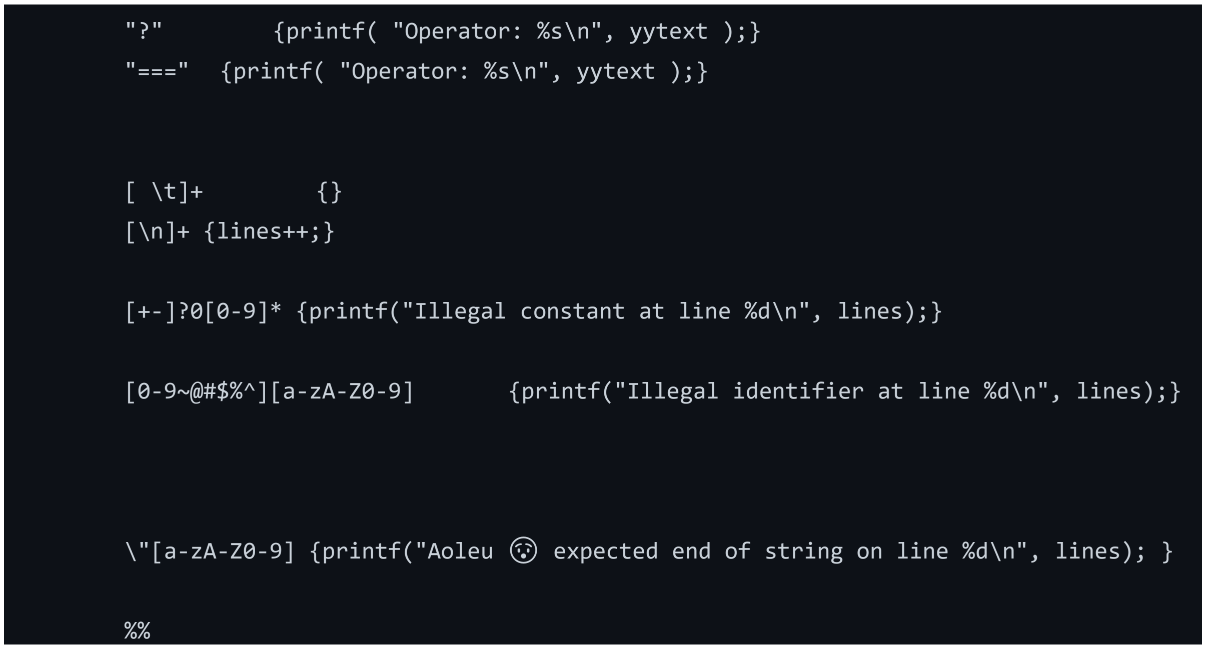


```
        class            {printf("Reserved word: %s\n", yytext);}
        struct           {printf("Reserved word: %s\n", yytext);}
        string           {printf("Reserved word: %s\n", yytext);}
        float            {printf("Reserved word: %s\n", yytext);}
        char             {printf("Reserved word: %s\n", yytext);}
        boolean          {printf("Reserved word: %s\n", yytext);}
        READ             {printf("Reserved word: %s\n", yytext);}
        WRITE            {printf("Reserved word: %s\n", yytext);}
        📢                {printf("Reserved word: %s\n", yytext);}
        return           {printf("Reserved word: %s\n", yytext);}
        fun              {printf("Reserved word: %s\n", yytext);}
        key              {printf("Reserved word: %s\n", yytext);}
        value            {printf("Reserved word: %s\n", yytext);}
        main             {printf("Reserved word: %s\n", yytext);}
        entry            {printf("Reserved word: %s\n", yytext);}
        🧠                {printf("Reserved word: %s\n", yytext);}

        {ID}   {printf( "Identifier: %s\n", yytext );}

        {CONST}{printf( "Constant: %s\n", yytext );}

        ":"        {printf( "Separator: %s\n", yytext );}
        ";"        {printf( "Separator: %s\n", yytext );}
        ","        {printf( "Separator: %s\n", yytext );}
        "."        {printf( "Separator: %s\n", yytext );}
        "{"        {printf( "Separator: %s\n", yytext );}
        "}"        {printf( "Separator: %s\n", yytext );}
        "("        {printf( "Separator: %s\n", yytext );}
        ")"        {printf( "Separator: %s\n", yytext );}
        "["        {printf( "Separator: %s\n", yytext );}
        "]"        {printf( "Separator: %s\n", yytext );}
        "+"        {printf( "Operator: %s\n", yytext );}
        "-"        {printf( "Operator: %s\n", yytext );}
        "*"        {printf( "Operator: %s\n", yytext );}
        "/"        {printf( "Operator: %s\n", yytext );}
        "<"        {printf( "Operator: %s\n", yytext );}
        ">"        {printf( "Operator: %s\n", yytext );}
        "<="   {printf( "Operator: %s\n", yytext );}
        ">="   {printf( "Operator: %s\n", yytext );}
        "!="   {printf( "Operator: %s\n", yytext );}
        "=="   {printf( "Operator: %s\n", yytext );}
        "="     {printf( "Operator: %s\n", yytext );}
        "!"        {printf( "Operator: %s\n", yytext );}
```



```
"?"         {printf( "Operator: %s\n", yytext );}
"==="   {printf( "Operator: %s\n", yytext );}



[ \t]+         {}
[\n]+ {lines++;}

[+-]?0[0-9]* {printf("Illegal constant at line %d\n", lines);}

[0-9~@#$%^][a-zA-Z0-9]       {printf("Illegal identifier at line %d\n", lines);}




\"[a-zA-Z0-9] {printf("Aoleu 😯 expected end of string on line %d\n", lines); }

%%
```