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01 : %{
02 : #include "defs.h"
03 : #define YYSTYPE char *
04 : char s[1024];
05 : %}
06 : %token SEND TO GETS SEMICOLON PERIOD LPAR RPAR COMMA ID NUMBER STRING COMMENT UNKNOWN
07 : %%
08 : Program
09 : : Statements
10 : { }
11 : Statements
12 : : Statement
13 : { printf("%s\n", $1); }
14 : | Statements Statement
15 : { printf("%s\n", $2); }
16 : Statement
17 : : Assignment SEMICOLON
18 : { strcpy(s, $1); strcat(s, ";"); $$ = strdup(s); }
19 : | Synapse SEMICOLON
20 : { strcpy(s, $1); strcat(s, ";"); $$ = strdup(s); }
21 : | Comment
22 : { strcpy(s, $1); $$ = strdup(s); }
23 : Assignment
24 : : VariableName GETS Constructor
25 : { strcpy(s, $1); strcat(s, " := "); strcat(s, $3); $$ = strdup(s); }
26 : Synapse
27 : : Variable Mappings
28 : { strcpy(s, $1); strcat(s, $2); $$ = strdup(s); }
29 : Mappings
30 : : Mapping
31 : { strcpy(s, $1); $$ = strdup(s); }
32 : | Mappings Mapping
33 : { strcpy(s, $1); strcat(s, $2); $$ = strdup(s); }
34 : Mapping
35 : : TO Variable
36 : { strcpy(s, " to: "); strcat(s, $2); $$ = strdup(s); }
37 : | SEND MemberName TO Variable
38 : { strcpy(s, " send: "); strcat(s, $2); strcat(s, " to: "); strcat(s, $4); $$ = strdup(s); }
39 : Variable
40 : : VariableName
41 : { strcpy(s, $1); $$ = strdup(s); }
42 : | VariableName PERIOD MemberName
43 : { strcpy(s, $1); strcat(s, "."); strcat(s, $3); $$ = strdup(s); }
44 : VariableName
45 : : ID
46 : { $$ = strdup(yytext); }
47 : MemberName
48 : : ID
49 : { $$ = strdup(yytext); }
50 : Constructor
51 : : ConstructorName LPAR RPAR
52 : { strcpy(s, $1); strcat(s, "()"); $$ = strdup(s); }
53 : | ConstructorName LPAR Arguments RPAR
54 : { strcpy(s, $1); strcat(s, "("); strcat(s, $3); strcat(s, ")"); $$ = strdup(s); }
55 : ConstructorName
56 : : ID
57 : { $$ = strdup(yytext); }
58 : Arguments
59 : : Argument
60 : { strcpy(s, $1); $$ = strdup(s); }
61 : | Arguments COMMA Argument
62 : { strcpy(s, $1); strcat(s, ", "); strcat(s, $3); $$ = strdup(s); }
63 : Argument
64 : : STRING
65 : { $$ = strdup(yytext); }
66 : Comment
67 : : COMMENT
68 : { $$ = strdup(yytext); }
69 : %%
70 : #include "lex.yy.c"
71 : void yyerror(char *s) {
72 :     fprintf(stderr, "\n%s at %d: nearby \"%s\"\n\n", s, linecounter, yytext);
73 :     exit(EXIT_FAILURE);
74 : }
75 :

```