

```

#include <yacc.h>

#define YYPARSEFAST
#line 1 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

/*
Vahe Karamian - CS 440 - Project 2
Filename: project2.1, project2.h, project2.c
*/
#include <stdio.h>

#line 13 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
/* repeated because of possible precompiled header */
#include <yacc.h>

#define YYPARSEFAST
#include "proj2.h"

#ifndef YYSTYPE
#define YYSTYPE int
#endif
#ifndef YYSTACK_SIZE
#define YYSTACK_SIZE 100
#endif

/* (state) stack */
#if (YYSTACK_SIZE) != 0
static yystack_t YYNEAR yystack[(YYSTACK_SIZE)];
yystack_t YFAR *YYNEAR YYDCDECL yysstackptr = yystack;
yystack_t YFAR *YYNEAR YYDCDECL yystackptr = yystack;
#else
yystack_t YFAR *YYNEAR YYDCDECL yysstackptr = NULL;
yystack_t YFAR *YYNEAR YYDCDECL yystackptr = NULL;
#endif

/* attribute stack */
#if (YYSTACK_SIZE) != 0
static YYSTYPE YYNEAR yyattributestack[(YYSTACK_SIZE)];
#ifdef YYPROTOTYPE
void YFAR *YYNEAR YYDCDECL yysattributestackptr = yyattributestack;
void YFAR *YYNEAR YYDCDECL yyattributestackptr = yyattributestack;
#else
char YFAR *YYNEAR YYDCDECL yysattributestackptr = (char YFAR *) yyattributestack;
char YFAR *YYNEAR YYDCDECL yyattributestackptr = (char YFAR *) yyattributestack;
#endif
#else
#ifdef YYPROTOTYPE
void YFAR *YYNEAR YYDCDECL yysattributestackptr = NULL;
void YFAR *YYNEAR YYDCDECL yyattributestackptr = NULL;
#else
char YFAR *YYNEAR YYDCDECL yysattributestackptr = NULL;
char YFAR *YYNEAR YYDCDECL yyattributestackptr = NULL;
#endif
#endif

int YYNEAR YYDCDECL yysstack_size = (YYSTACK_SIZE);
int YYNEAR YYDCDECL yystack_size = (YYSTACK_SIZE);

/* attributes */
YYSTYPE YYNEAR yyval;
YYSTYPE YYNEAR yylval;
#ifdef YYPROTOTYPE
void YFAR *YYNEAR YYDCDECL yyvalptr = &yyval;
void YFAR *YYNEAR YYDCDECL yylvalptr = &yylval;
#else
char YFAR *YYNEAR YYDCDECL yyvalptr = (char *) &yyval;
char YFAR *YYNEAR YYDCDECL yylvalptr = (char *) &yylval;
#endif

size_t YYNEAR YYDCDECL yyattribute_size = sizeof(YYSTYPE);

/* yyattribute */
#ifdef YYDEBUG
#ifdef YYPROTOTYPE
static YYSTYPE YFAR *yyattributel(int index)
#else
static YYSTYPE YFAR *yyattributel(index)
int index;
#endif
#endif

```

```

{
    YYSTYPE YFAR *p = &((YYSTYPE YFAR *) yyattributestackptr)[yytop + index];
    return p;
}
#define yyattribute(index) (*yyattributel(index))
#else
#define yyattribute(index) ((YYSTYPE YFAR *) yyattributestackptr)[yytop + (index)]
#endif

#ifdef YYDEBUG
#ifdef YYPROTOTYPE
static void yyinitdebug(YYSTYPE YFAR **p, int count)
#else
static void yyinitdebug(p, count)
YYSTYPE YFAR **p;
int count;
#endif
{
    int i;
    yyassert(p != NULL);
    yyassert(count >= 1);

    for (i = 0; i < count; i++) {
        p[i] = &((YYSTYPE YFAR *) yyattributestackptr)[yytop + i - (count - 1)];
    }
}
#endif

#ifdef YYPROTOTYPE
void YYDECL yyparseaction(int action)
#else
void YYDECL yyparseaction(action)
int action;
#endif
{
    switch (action) {
        case 0:
            {
#ifdef YYDEBUG
                YYSTYPE YFAR *yya[2];
                yyinitdebug(yya, 2);
#endif
            }
            #line 32 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
            printf("program -> declaration_list \n");
            #line 126 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
            }
            break;
        case 1:
            {
#ifdef YYDEBUG
                YYSTYPE YFAR *yya[3];
                yyinitdebug(yya, 3);
#endif
            }
            #line 36 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
            printf("declaration_list -> declaration_list decleration \n");

            #line 141 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
            }
            break;
        case 2:
            {
#ifdef YYDEBUG
                YYSTYPE YFAR *yya[2];
                yyinitdebug(yya, 2);
#endif
            }
            #line 40 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
            printf("declaration_list -> declaration \n");

            #line 156 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
            }
            break;
    }
}

```

```

    case 3:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
    {
#line 46 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf("declaration -> var_declaration \n");

#line 171 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 4:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
    {
#line 50 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf("declaration -> fun_declaration \n");

#line 186 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 5:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[4];
        yyinitdebug(yya, 4);
#endif
    {
#line 56 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf("var_declaration -> type_specifier ID; \n" );

#line 201 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 6:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[7];
        yyinitdebug(yya, 7);
#endif
    {
#line 60 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf(" var_declaration -> type_specifier ID [ NUM ]; \n");

#line 216 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 7:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[3];
        yyinitdebug(yya, 3);
#endif
    {
#line 64 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf("var decl error");

#line 231 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 8:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];

```

```

        yyinitdebug(yya, 2);
#endif
{
#line 70 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf(" type_specifier -> int \n");

#line 246 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 9:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
#line 74 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf(" type_specifier -> void \n");

#line 261 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 10:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[7];
    yyinitdebug(yya, 7);
#endif
#line 80 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf(" fun_declaration -> type_specifier ID ( params ) compound_stmt \n");

#line 276 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 11:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
#line 86 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf(" params -> param_list \n");

#line 291 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 12:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
#line 90 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

        printf(" params -> void \n");

#line 306 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 13:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[4];
    yyinitdebug(yya, 4);
#endif
#line 96 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

```

```

        printf(" param_list -> param \n");
#line 321 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 14:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
#line 100 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" param_list -> param \n");
#line 336 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 15:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[4];
        yyinitdebug(yya, 4);
#endif
#line 104 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf("PL error");
#line 351 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 16:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[4];
        yyinitdebug(yya, 4);
#endif
#line 108 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf("PL error2");
#line 366 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 17:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[3];
        yyinitdebug(yya, 3);
#endif
#line 114 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" param -> type_specifier ID \n");
#line 381 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 18:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[5];
        yyinitdebug(yya, 5);
#endif
#line 118 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" param -> type_specifier ID[] \n");
#line 396 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"

```

```

    }
    break;
case 19:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[5];
    yyinitdebug(yya, 5);
#endif
{
#line 124 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" compound_stmt -> { local_declarations statement_list } \n");
#line 411 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 20:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[3];
    yyinitdebug(yya, 3);
#endif
{
#line 130 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" local_declarations -> local_declarations var_declaration \n");
#line 426 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 21:
{
#line 133 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
printf(" e \n");
#line 434 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 22:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[3];
    yyinitdebug(yya, 3);
#endif
{
#line 137 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" statement_list -> statement_list statement \n");
#line 448 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 23:
{
#line 140 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
printf(" e \n");
#line 456 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 24:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
{
#line 144 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" statement -> expression_stmt \n");
#line 470 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 25:
{

```

```

#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
{
#line 148 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" statement -> compound_stmt \n");

#line 485 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 26:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
{
#line 152 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" statement -> selection_stmt \n");

#line 500 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 27:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
{
#line 156 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" statement -> iteration_stmt \n");

#line 515 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 28:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
{
#line 160 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" statement -> return_stmt \n");

#line 530 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 29:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[3];
    yyinitdebug(yya, 3);
#endif
{
#line 170 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" expression_stmt -> expression ; \n");

#line 545 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 30:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif

```

```

{
#line 174 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" expression_stmt -> ; \n");
}
#line 560 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 31:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[6];
    yyinitdebug(yya, 6);
#endif
#line 180 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" selection_stmt -> if (expression) statement \n");
}
#line 575 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 32:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[8];
    yyinitdebug(yya, 8);
#endif
#line 184 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" selection_stmt -> if (expression) statement else statement \n");
}
#line 590 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 33:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[6];
    yyinitdebug(yya, 6);
#endif
#line 190 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" iteration_stmt -> while (expression) statement \n");
}
#line 605 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 34:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[3];
    yyinitdebug(yya, 3);
#endif
#line 196 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" return_stmt -> return; \n");
}
#line 620 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
}
break;
case 35:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[4];
    yyinitdebug(yya, 4);
#endif
#line 200 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" return_stmt -> return expression; \n");
}
}

```



```

#line 635 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 36:
    {
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[4];
    yyinitdebug(yya, 4);
#endif
#line 206 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" expression -> var = expression \n");

#line 650 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 37:
    {
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
#line 210 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" expression -> simple_expression \n");

#line 665 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 38:
    {
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
#line 216 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" var -> ID \n");

#line 680 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 39:
    {
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[5];
    yyinitdebug(yya, 5);
#endif
#line 220 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" var -> ID [ expression ] \n");

#line 695 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 40:
    {
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[4];
    yyinitdebug(yya, 4);
#endif
#line 226 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" simple_expression -> simple_expression relop additive_expression \n");

#line 710 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
}

```

```

        break;
    case 41:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
    {
#line 230 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
                printf(" simple_expression -> additive_expression \n");

#line 725 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 42:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[4];
        yyinitdebug(yya, 4);
#endif
    {
#line 236 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
                printf(" additive_expression addop term \n");

#line 740 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 43:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
    {
#line 240 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
                printf(" additive_expression -> term \n");

#line 755 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 44:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[4];
        yyinitdebug(yya, 4);
#endif
    {
#line 246 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
                printf(" term -> term mulop factor \n");

#line 770 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 45:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
    {
#line 250 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
                printf(" term -> factor \n");

#line 785 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
        break;
    case 46:
    {
#ifdef YYDEBUG

```

```

        YYSTYPE YFAR *yya[4];
        yyinitdebug(yya, 4);
#endif
    {
#line 256 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" factor -> ( expression ) \n");

#line 800 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 47:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
#line 260 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" factor -> var \n");

#line 815 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 48:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
#line 264 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" factor -> NUM \n");

#line 830 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 49:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
#line 268 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" factor -> call \n");

#line 845 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 50:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[5];
        yyinitdebug(yya, 5);
#endif
#line 274 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
        printf(" call -> ID ( args ) \n");

#line 860 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
    case 51:
    {
#ifdef YYDEBUG
        YYSTYPE YFAR *yya[2];
        yyinitdebug(yya, 2);
#endif
    {

```

```

#line 280 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" args -> arg_list \n");

#line 875 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 52:
{
#line 283 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
printf(" e \n");
#line 883 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 53:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[4];
    yyinitdebug(yya, 4);
#endif
}
#line 287 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" arg_list -> arg_list, expression \n");

#line 897 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
case 54:
{
#ifdef YYDEBUG
    YYSTYPE YFAR *yya[2];
    yyinitdebug(yya, 2);
#endif
}
#line 291 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"
    printf(" arg_list -> expression \n");

#line 912 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
    }
    break;
default:
    yyassert(0);
    break;
}
}
#line 296 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.y"

#include          "proj1.c"

#line 927 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj2.c"
#ifdef YYDEBUG
YYCONST yysymbol_t YYNEARFAR YYBASED_CODE YYDCDECL yysymbol[] = {
{ "$end", 0 },
{ "error", 256 },
{ "ID", 257 },
{ "SEMICOLON", 258 },
{ "OBRAK", 259 },
{ "CBRAK", 260 },
{ "NUM", 261 },
{ "INT", 262 },
{ "VOID", 263 },
{ "OPAR", 264 },
{ "CPAR", 265 },
{ "CBRAC", 266 },
{ "OBRAC", 267 },
{ "IF", 268 },
{ "ELSE", 269 },
{ "WHILE", 270 },
{ "RETURN", 271 },
{ "RELOP", 272 },
{ "ADDOP", 273 },
{ "MULOP", 274 },

```

```

{ "COMMA", 275 },
{ "ASSIGN", 276 },
{ NULL, 0 }
};

```

```

YYCONST char *YYCONST YYNEARFAR YYBASED_CODE YYDCDECL yyrule[] = {
"$accept: program",
"program: declaration_list",
"declaration_list: declaration_list declaration",
"declaration_list: declaration",
"declaration: var_declaration",
"declaration: fun_declaration",
"var_declaration: type_specifier ID SEMICOLON",
"var_declaration: type_specifier ID OBRAK NUM CBRAK SEMICOLON",
"var_declaration: error SEMICOLON",
"type_specifier: INT",
"type_specifier: VOID",
"fun_declaration: type_specifier ID OPAR params CPAR compound_stmt",
"params: param_list",
"params: VOID",
"param_list: param_list COMMA param",
"param_list: param",
"param_list: param_list COMMA ID",
"param_list: param_list COMMA type_specifier",
"param: type_specifier ID",
"param: type_specifier ID OBRAK CBRAK",
"compound_stmt: OBRAC local_declarations statement_list CBRAK",
"local_declarations: local_declarations var_declaration",
"local_declarations:",
"statement_list: statement_list statement",
"statement_list:",
"statement: expression_stmt",
"statement: compound_stmt",
"statement: selection_stmt",
"statement: iteration_stmt",
"statement: return_stmt",
"expression_stmt: expression SEMICOLON",
"expression_stmt: SEMICOLON",
"selection_stmt: IF OPAR expression CPAR statement",
"selection_stmt: IF OPAR expression CPAR statement ELSE statement",
"iteration_stmt: WHILE OPAR expression CPAR statement",
"return_stmt: RETURN SEMICOLON",
"return_stmt: RETURN expression SEMICOLON",
"expression: var ASSIGN expression",
"expression: simple_expression",
"var: ID",
"var: ID OBRAK expression CBRAK",
"simple_expression: simple_expression RELOP additive_expression",
"simple_expression: additive_expression",
"additive_expression: additive_expression ADDOP term",
"additive_expression: term",
"term: term MULOP factor",
"term: factor",
"factor: OPAR expression CPAR",
"factor: var",
"factor: NUM",
"factor: call",
"call: ID OPAR args CPAR",
"args: arg_list",
"args:",
"arg_list: arg_list COMMA expression",
"arg_list: expression"
};
#endif

```

```

YYCONST yyreduction_t YYNEARFAR YYBASED_CODE YYDCDECL yyreduction[] = {
{ 0, 1, -1 },
{ 1, 1, 0 },
{ 2, 2, 1 },
{ 2, 1, 2 },
{ 3, 1, 3 },
{ 3, 1, 4 },
{ 4, 3, 5 },
{ 4, 6, 6 },
{ 4, 2, 7 },
{ 5, 1, 8 },
{ 5, 1, 9 },
{ 6, 6, 10 },
{ 7, 1, 11 },

```

```

{ 7, 1, 12 },
{ 8, 3, 13 },
{ 8, 1, 14 },
{ 8, 3, 15 },
{ 8, 3, 16 },
{ 9, 2, 17 },
{ 9, 4, 18 },
{ 10, 4, 19 },
{ 11, 2, 20 },
{ 11, 0, 21 },
{ 12, 2, 22 },
{ 12, 0, 23 },
{ 13, 1, 24 },
{ 13, 1, 25 },
{ 13, 1, 26 },
{ 13, 1, 27 },
{ 13, 1, 28 },
{ 14, 2, 29 },
{ 14, 1, 30 },
{ 15, 5, 31 },
{ 15, 7, 32 },
{ 16, 5, 33 },
{ 17, 2, 34 },
{ 17, 3, 35 },
{ 18, 3, 36 },
{ 18, 1, 37 },
{ 19, 1, 38 },
{ 19, 4, 39 },
{ 20, 3, 40 },
{ 20, 1, 41 },
{ 21, 3, 42 },
{ 21, 1, 43 },
{ 22, 3, 44 },
{ 22, 1, 45 },
{ 23, 3, 46 },
{ 23, 1, 47 },
{ 23, 1, 48 },
{ 23, 1, 49 },
{ 24, 4, 50 },
{ 25, 1, 51 },
{ 25, 0, 52 },
{ 26, 3, 53 },
{ 26, 1, 54 }
};

```

```

YYCONST yytokenaction_t YYNEARFAR YYBASED_CODE YYDCDECL yytokenaction[] = {
{ 93, YYAT_SHIFT, 40 },
{ 87, YYAT_SHIFT, 39 },
{ 38, YYAT_SHIFT, 13 },
{ 38, YYAT_SHIFT, 14 },
{ 91, YYAT_SHIFT, 93 },
{ 87, YYAT_SHIFT, 41 },
{ 83, YYAT_SHIFT, 71 },
{ 61, YYAT_SHIFT, 39 },
{ 87, YYAT_SHIFT, 42 },
{ 93, YYAT_SHIFT, 28 },
{ 93, YYAT_SHIFT, 44 },
{ 61, YYAT_SHIFT, 41 },
{ 93, YYAT_SHIFT, 45 },
{ 93, YYAT_SHIFT, 46 },
{ 61, YYAT_SHIFT, 42 },
{ 34, YYAT_SHIFT, 1 },
{ 82, YYAT_SHIFT, 70 },
{ 5, YYAT_SHIFT, 1 },
{ 0, YYAT_SHIFT, 1 },
{ 0, YYAT_ERROR, 0 },
{ 25, YYAT_SHIFT, 30 },
{ 34, YYAT_SHIFT, 2 },
{ 34, YYAT_SHIFT, 3 },
{ 5, YYAT_SHIFT, 2 },
{ 5, YYAT_SHIFT, 3 },
{ 25, YYAT_SHIFT, 2 },
{ 25, YYAT_SHIFT, 3 },
{ 15, YYAT_ERROR, 0 },
{ 78, YYAT_SHIFT, 89 },
{ 39, YYAT_SHIFT, 60 },
{ 77, YYAT_SHIFT, 88 },
{ 75, YYAT_SHIFT, 87 },
{ 74, YYAT_SHIFT, 86 }
};

```

```

{ 15, YYAT_SHIFT, 17 },
{ 39, YYAT_SHIFT, 61 },
{ 72, YYAT_SHIFT, 85 },
{ 66, YYAT_SHIFT, 79 },
{ 62, YYAT_SHIFT, 76 },
{ 57, YYAT_SHIFT, 71 },
{ 56, YYAT_SHIFT, 70 },
{ 55, YYAT_SHIFT, 69 },
{ 54, YYAT_SHIFT, 68 },
{ 53, YYAT_SHIFT, 67 },
{ 46, YYAT_SHIFT, 65 },
{ 45, YYAT_SHIFT, 64 },
{ 44, YYAT_SHIFT, 63 },
{ 37, YYAT_SHIFT, 43 },
{ 36, YYAT_SHIFT, 38 },
{ 31, YYAT_SHIFT, 23 },
{ 27, YYAT_SHIFT, 33 },
{ 24, YYAT_SHIFT, 28 },
{ 23, YYAT_SHIFT, 27 },
{ 22, YYAT_SHIFT, 26 },
{ 20, YYAT_SHIFT, 25 },
{ 19, YYAT_SHIFT, 24 },
{ 18, YYAT_SHIFT, 23 },
{ 17, YYAT_REDUCE, 13 },
{ 16, YYAT_SHIFT, 22 },
{ 14, YYAT_SHIFT, 16 },
{ 12, YYAT_SHIFT, 15 },
{ 9, YYAT_SHIFT, 12 },
{ 4, YYAT_ACCEPT, 0 },
{ 1, YYAT_SHIFT, 10 }
};
int YYNEAR YYDCDECL ytokenaction_size = 63;
YYCONST yystateaction_t YYNEARFAR YYBASED_CODE YYDCDECL yystateaction[] = {
{ -238, 1, YYAT_DEFAULT, 25 },
{ -196, 1, YYAT_DEFAULT, 66 },
{ 0, 0, YYAT_REDUCE, 9 },
{ 0, 0, YYAT_REDUCE, 10 },
{ 61, 1, YYAT_ERROR, 0 },
{ -239, 1, YYAT_REDUCE, 1 },
{ 0, 0, YYAT_REDUCE, 3 },
{ 0, 0, YYAT_REDUCE, 4 },
{ 0, 0, YYAT_REDUCE, 5 },
{ -197, 1, YYAT_DEFAULT, 36 },
{ 0, 0, YYAT_REDUCE, 8 },
{ 0, 0, YYAT_REDUCE, 2 },
{ -205, 1, YYAT_DEFAULT, 38 },
{ 0, 0, YYAT_REDUCE, 6 },
{ -203, 1, YYAT_ERROR, 0 },
{ -230, 1, YYAT_DEFAULT, 25 },
{ -203, 1, YYAT_DEFAULT, 72 },
{ -209, 1, YYAT_REDUCE, 10 },
{ -202, 1, YYAT_DEFAULT, 36 },
{ -211, 1, YYAT_DEFAULT, 78 },
{ -222, 1, YYAT_REDUCE, 12 },
{ 0, 0, YYAT_REDUCE, 15 },
{ -206, 1, YYAT_DEFAULT, 66 },
{ -208, 1, YYAT_REDUCE, 18 },
{ -217, 1, YYAT_ERROR, 0 },
{ -237, 1, YYAT_DEFAULT, 36 },
{ 0, 0, YYAT_REDUCE, 7 },
{ -211, 1, YYAT_DEFAULT, 72 },
{ 0, 0, YYAT_REDUCE, 22 },
{ 0, 0, YYAT_REDUCE, 11 },
{ 0, 0, YYAT_REDUCE, 16 },
{ -209, 1, YYAT_REDUCE, 17 },
{ 0, 0, YYAT_REDUCE, 14 },
{ 0, 0, YYAT_REDUCE, 19 },
{ -241, 1, YYAT_REDUCE, 24 },
{ 0, 0, YYAT_REDUCE, 21 },
{ -210, 1, YYAT_ERROR, 0 },
{ -220, 1, YYAT_DEFAULT, 93 },
{ -256, 1, YYAT_DEFAULT, 66 },
{ -230, 1, YYAT_REDUCE, 39 },
{ 0, 0, YYAT_REDUCE, 31 },
{ 0, 0, YYAT_REDUCE, 49 },
{ 0, 0, YYAT_DEFAULT, 87 },
{ 0, 0, YYAT_REDUCE, 20 },
{ -219, 1, YYAT_DEFAULT, 45 },

```

```

{ -220, 1, YYAT_ERROR, 0 },
{ -215, 1, YYAT_DEFAULT, 87 },
{ 0, 0, YYAT_REDUCE, 26 },
{ 0, 0, YYAT_REDUCE, 23 },
{ 0, 0, YYAT_REDUCE, 25 },
{ 0, 0, YYAT_REDUCE, 27 },
{ 0, 0, YYAT_REDUCE, 28 },
{ 0, 0, YYAT_REDUCE, 29 },
{ -216, 1, YYAT_DEFAULT, 66 },
{ -235, 1, YYAT_REDUCE, 48 },
{ -232, 1, YYAT_REDUCE, 38 },
{ -234, 1, YYAT_REDUCE, 42 },
{ -236, 1, YYAT_REDUCE, 44 },
{ 0, 0, YYAT_REDUCE, 46 },
{ 0, 0, YYAT_REDUCE, 50 },
{ 0, 0, YYAT_DEFAULT, 87 },
{ -250, 1, YYAT_REDUCE, 53 },
{ -228, 1, YYAT_DEFAULT, 78 },
{ 0, 0, YYAT_DEFAULT, 87 },
{ 0, 0, YYAT_DEFAULT, 87 },
{ 0, 0, YYAT_REDUCE, 35 },
{ -222, 1, YYAT_ERROR, 0 },
{ 0, 0, YYAT_REDUCE, 30 },
{ 0, 0, YYAT_DEFAULT, 87 },
{ 0, 0, YYAT_DEFAULT, 87 },
{ 0, 0, YYAT_DEFAULT, 87 },
{ 0, 0, YYAT_DEFAULT, 87 },
{ -225, 1, YYAT_ERROR, 0 },
{ 0, 0, YYAT_REDUCE, 55 },
{ -233, 1, YYAT_DEFAULT, 78 },
{ -244, 1, YYAT_REDUCE, 52 },
{ 0, 0, YYAT_REDUCE, 47 },
{ -235, 1, YYAT_DEFAULT, 78 },
{ -237, 1, YYAT_ERROR, 0 },
{ 0, 0, YYAT_REDUCE, 36 },
{ 0, 0, YYAT_REDUCE, 37 },
{ 0, 0, YYAT_REDUCE, 48 },
{ -257, 1, YYAT_REDUCE, 41 },
{ -268, 1, YYAT_REDUCE, 43 },
{ 0, 0, YYAT_REDUCE, 45 },
{ 0, 0, YYAT_REDUCE, 40 },
{ 0, 0, YYAT_REDUCE, 51 },
{ -256, 1, YYAT_DEFAULT, 45 },
{ 0, 0, YYAT_DEFAULT, 93 },
{ 0, 0, YYAT_DEFAULT, 93 },
{ 0, 0, YYAT_REDUCE, 54 },
{ -265, 1, YYAT_REDUCE, 32 },
{ 0, 0, YYAT_REDUCE, 34 },
{ -258, 1, YYAT_DEFAULT, 87 },
{ 0, 0, YYAT_REDUCE, 33 }
};

```

```

YYCONST yynontermgoto_t YYNEARFAR YYBASED_CODE YYDCDECL yynontermgoto[] = {

```

```

{ 93, 47 },
{ 89, 92 },
{ 61, 73 },
{ 93, 94 },
{ 93, 49 },
{ 93, 50 },
{ 93, 51 },
{ 93, 52 },
{ 93, 53 },
{ 61, 74 },
{ 61, 75 },
{ 34, 35 },
{ 34, 36 },
{ 15, 18 },
{ 25, 31 },
{ 15, 19 },
{ 15, 20 },
{ 15, 21 },
{ 25, 32 },
{ 34, 37 },
{ 87, 90 },
{ 87, 54 },
{ 87, 55 },
{ 87, 56 },
{ 5, 11 },
{ 5, 7 },

```







```

enum{LPAREN=50001,RPAREN,lbrace,rbrace,lbbracket,rbbracket};
*/
enum{ BREAK = 9504 };

#line 35 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
/* repeated because of possible precompiled header */
#include <lex.h>

#define YLEXFAST
#include "proj1.h"

#ifndef YYTEXT_SIZE
#define YYTEXT_SIZE 100
#endif
#ifndef YYUNPUT_SIZE
#define YYUNPUT_SIZE YYTEXT_SIZE
#endif

/* yytext */
static char YYNEAR yysatext[(YYTEXT_SIZE) + 1]; /* extra char for \0 */
char YYFAR *YYNEAR YYDCDECL yystext = yysatext;
char YYFAR *YYNEAR YYDCDECL yytext = yysatext;
int YYNEAR YYDCDECL yystext_size = (YYTEXT_SIZE);
int YYNEAR YYDCDECL yytext_size = (YYTEXT_SIZE);

/* yystatebuf */
#if (YYTEXT_SIZE) != 0
static int YYNEAR yysastatebuf[(YYTEXT_SIZE)];
int YYFAR *YYNEAR YYDCDECL yysstatebuf = yysastatebuf;
int YYFAR *YYNEAR YYDCDECL yystatebuf = yysastatebuf;
#else
int YYFAR *YYNEAR YYDCDECL yysstatebuf = NULL;
int YYFAR *YYNEAR YYDCDECL yystatebuf = NULL;
#endif

/* yyunputbuf */
#if (YYUNPUT_SIZE) != 0
static int YYNEAR yysaunputbuf[(YYUNPUT_SIZE)];
int YYFAR *YYNEAR YYDCDECL yysunputbufptr = yysaunputbuf;
int YYFAR *YYNEAR YYDCDECL yyunputbufptr = yysaunputbuf;
#else
int YYFAR *YYNEAR YYDCDECL yysunputbufptr = NULL;
int YYFAR *YYNEAR YYDCDECL yyunputbufptr = NULL;
#endif
int YYNEAR YYDCDECL yysunput_size = (YYUNPUT_SIZE);
int YYNEAR YYDCDECL yyunput_size = (YYUNPUT_SIZE);

/* backwards compatability with lex */
#ifdef input
#ifdef YYPROTOTYPE
int YYCDECL yyinput(void)
#else
int YYCDECL yyinput()
#endif
{
    return input();
}
#else
#define input yyinput
#endif

#ifdef output
#ifdef YYPROTOTYPE
void YYCDECL yyoutput(int ch)
#else
void YYCDECL yyoutput(ch)
int ch;
#endif
{
    output(ch);
}
#else
#define output yyoutput
#endif

#ifdef unput
#ifdef YYPROTOTYPE
void YYCDECL yyunput(int ch)
#else

```

```

void YYCDECL yyunput(ch)
int ch;
#endif
{
    unput(ch);
}
#else
#define unput yyunput
#endif

#ifndef YYNBORLANDWARN
#ifdef __BORLANDC__
#pragma warn -rch /* <warning: unreachable code> off */
#endif
#endif

#ifdef YYPROTOTYPE
int YYCDECL yylexaction(int action)
#else
int YYCDECL yylexaction(action)
int action;
#endif
{
    yyreturnflg = 1;
    switch (action) {
        case 1:
            {
#line 39 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
                BEGIN COMMENT;
#line 139 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
            }
            break;
        case 2:
            {
#line 40 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
                ;
#line 146 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
            }
            break;
        case 3:
            {
#line 42 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
                BEGIN 0;
#line 153 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
            }
            break;
        case 4:
            {
#line 43 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
                BEGIN 0;
#line 160 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
            }
            break;
        case 5:
            {
#line 44 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
                ;
#line 167 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
            }
            break;
        case 6:
            {
#line 45 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
                ;
#line 174 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
            }
            break;
        case 7:
            {
#line 49 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
                printf("t_if [%d]", IF ); return(IF);
#line 181 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
            }
            break;
        case 8:
            {
#line 50 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
                printf("t_else [%d]", ELSE ); return(ELSE);
#line 188 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
            }
            break;
    }
}

```

```

    }
    break;
case 9:
{
#line 51 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_while [%d]", WHILE ); return(WHILE);
#line 195 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 10:
{
#line 52 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_break [%d]", BREAK );
#line 202 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 11:
{
#line 53 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_return [%d]", RETURN ); return(RETURN);
#line 209 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 12:
{
#line 54 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_void [%d]", VOID ); return(VOID);
#line 216 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 13:
{
#line 55 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_int [%d]", INT ); return(INT);
#line 223 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 14:
{
#line 59 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_ADD %d", ADDOP ); return(ADDOP);
#line 230 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 15:
{
#line 60 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_SUB %d", ADDOP ); return(ADDOP);
#line 237 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 16:
{
#line 61 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_DIV %d", MULOP ); return(MULOP);
#line 244 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 17:
{
#line 62 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_MUL %d", MULOP ); return(MULOP);
#line 251 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 18:
{
#line 66 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_LT %d", RELOP ); return(RELOP);
#line 258 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 19:
{
#line 67 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("t_GT %d", RELOP ); return(RELOP);
#line 265 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;

```

```

case 20:
{
#line 69 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_EQ %d)", RELOP ); return(RELOP);
#line 272 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 21:
{
#line 70 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_LE %d)", RELOP ); return(RELOP);
#line 279 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 22:
{
#line 71 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_GE %d)", RELOP ); return(RELOP);
#line 286 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 23:
{
#line 72 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_NE %d)", RELOP ); return(RELOP);
#line 293 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 24:
{
#line 74 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_AS %d)", RELOP ); return(RELOP);
#line 300 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 25:
{
#line 77 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_semi %d)\n", SEMICOLON ); return(SEMICOLON);
#line 307 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 26:
{
#line 78 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_coma %d)", COMMA ); return(COMMA);
#line 314 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 27:
{
#line 80 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_lparen %d)", OPAR ); return(OPAR);
#line 321 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 28:
{
#line 81 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_rparen %d)", CPAR ); return(CPAR);
#line 328 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 29:
{
#line 82 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_lbrace %d)\n", OBRAC ); return(OBRAC);
#line 335 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 30:
{
#line 83 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_rbrace %d)\n", CBRAC ); return(CBRAC);
#line 342 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 31:
{

```

```

#line 84 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_lbrakt %d)", OBRAK ); return(OBRAK);
#line 349 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 32:
{
#line 85 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_rbrakt %d)", CBRAK ); return(CBRAK);
#line 356 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 33:
{
#line 88 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_num %s)", yytext ); return(NUM);
#line 363 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 34:
{
#line 91 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_float %s)", yytext ); return(NUM);
#line 370 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 35:
{
#line 94 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(t_id %s)", yytext ); return(ID);
#line 377 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 36:
{
#line 96 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
;
#line 384 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
case 37:
{
#line 99 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"
printf("(nt_error: %s\n)", yytext );
#line 391 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
}
break;
default:
yyassert(0);
break;
}
yyreturnflg = 0;
return 0;
}

#ifndef YYNBORLANDWARN
#ifdef __BORLANDC__
#pragma warn .rch /* <warning: unreachable code> to the old state */
#endif
#endif
#line 101 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.1"

/* symbol table function */

void SymbolTable( char* id )
{
symbolTable[vk_index] = id;
printf("(t_id {%s} L[%i])", symbolTable[vk_index], vk_index );
vk_index++;
}

#line 419 "H:\documents\Schools\Cal Poly Pomona\Computer Science\Computer Science 440\project2\code\proj1.c"
YYCONST yymatch_t YYNEARFAR YYBASED_CODE YYDCDECL yymatch[] = {
0
};

int YYNEAR YYDCDECL yytransitionmax = 245;
YYCONST yytransition_t YYNEARFAR YYBASED_CODE YYDCDECL yytransition[] = {

```









```

{ 43, 43 },
{ 43, 43 },
{ 43, 43 },
{ 43, 43 },
{ 43, 43 },
{ 43, 43 },
{ 43, 43 },
{ 43, 43 },
};

```

```

YYCONST yystate_t YYNEARFAR YYBASED_CODE YYDCDECL yystate[] = {
{ 0, 0, 0 },
{ -30, 1, 0 },
{ 1, 0, 0 },
{ -65, 5, 0 },
{ 3, 0, 0 },
{ 0, 55, 16 },
{ 62, 23, 35 },
{ 62, 19, 35 },
{ 62, 24, 35 },
{ 62, 15, 35 },
{ 62, 29, 35 },
{ 62, 20, 35 },
{ 0, 0, 14 },
{ 0, 0, 15 },
{ 0, 0, 17 },
{ 18, 34, 18 },
{ 18, 3, 19 },
{ 18, 4, 24 },
{ 0, 32, 37 },
{ 0, 0, 25 },
{ 0, 0, 26 },
{ 0, 0, 27 },
{ 0, 0, 28 },
{ 0, 0, 29 },
{ 0, 0, 30 },
{ 0, 0, 31 },
{ 0, 0, 32 },
{ 43, 177, 33 },
{ 62, 0, 35 },
{ 0, 0, 36 },
{ 0, 0, 37 },
{ 44, 0, 1 },
{ 62, 0, 7 },
{ 62, 16, 35 },
{ 62, 19, 35 },
{ 62, 30, 35 },
{ 62, 35, 35 },
{ 62, 21, 35 },
{ 62, 33, 35 },
{ 0, 0, 21 },
{ 0, 0, 22 },
{ 0, 0, 20 },
{ 0, 0, 23 },
{ 0, 187, 34 },
{ 45, 49, 0 },
{ -44, 149, 0 },
{ 62, 0, 13 },
{ 62, 38, 35 },
{ 62, 32, 35 },
{ 62, 44, 35 },
{ 62, 25, 35 },
{ 62, 43, 35 },
{ 44, 3, 0 },
{ 62, 0, 8 },
{ 62, 43, 35 },
{ 62, 38, 35 },
{ 62, 32, 35 },
{ 62, 0, 12 },
{ 0, 0, 2 },
{ 62, 0, 9 },
{ 62, 0, 10 },
{ 62, 37, 35 },
{ 43, 100, 11 },
{ 65, 12, 0 },
{ 0, 0, 5 },
{ 0, 4, 0 },
{ 68, 0, 4 },
{ 0, 0, 6 },

```

