

CS 5353 Compiler Construction
Spring 2015 Selection Sets for LL(1) Grammar

1	program	<<id>>, forward
2	func_list	<<id>>, forward
3		\$
4	func	<<id>>
5		forward
6	vars	int, char, bool
7), ;
8	var_dec	int, char, bool
9	vars_tail	comma
10), ;
11	var_decs	int, char, bool
12		<< var_id>>, if, while, write, read, return, <<id>>
13	array_dec	[
14		comma,), ;
15	return_list	int, char, bool
16		>
17	return_tail	comma
18		>
19	type	int
20		char
21		bool
22	block	<< var_id>>, if, while, write, read, return, <<id>>
23		}
24	stmt	<<var_id>>
25		if
26		while
27		write
28		read
29		return
30		<<id>>
31	var_list	<<var_id>>
32	var_tail	comma
33		:=,)
34	var_ref	<<var_id>>
35	array_ref	[
36		^, %, *, /, +, -, <, >, <=, >=, =, !=, , &,),], comma, :, :=
37	else_tail	else
38		<< var_id>>, if, while, write, read, return, <<id>>, }
39	arg_list	<<char>>,<<var_id>>,<<int>>,<<bool>>,!,(,<<id>>
40	arg	<<char>>
41		<<var_id>>,<<int>>,<<bool>>,!,(,<<id>>
42	arg_tail	comma
43		;,)
44	write_list	<<char>>,<<string>>,<<var_id>>,<<int>>,<<bool>>,!,(,<<id>>

```

45 write_item    <<char>>
46              <<string>>
47              <<var_id>>,<<int>>,<<bool>>,!,<(<<id>>
48 write_tail    comma
49              )
50 expr          <<var_id>>,<<int>>,<<bool>>,!,<(<<id>>
51 expr_1        |
52              &
53              ), ], comma, ;
54 b_expr        <<var_id>>,<<int>>,<<bool>>,!,<(<<id>>
55 b_expr_1      <
56              >
57              <=
58              >=
59              =
60              !=
61              |, &, ), ], comma, ;
62 n_expr        <<var_id>>,<<int>>,<<bool>>,!,<(<<id>>
63 n_expr_1      +
64              -
65              <, >, <=, >=, =, !=, |, &, ), ], comma, ;
66 term          <<var_id>>,<<int>>,<<bool>>,!,<(<<id>>
67 term_1        *
68              /
69              +, -, <, >, <=, >=, =, !=, |, &, ), ], comma, ;
70 factor        <<var_id>>,<<int>>,<<bool>>,!,<(<<id>>
71 factor_1      %
72              *, /, +, -, <, >, <=, >=, =, !=, |, &, ), ], comma, ;
73 sub_factor    <<var_id>>,<<int>>,<<bool>>,!,<(<<id>>
74 sub_factor_1  ^
75              %, *, /, +, -, <, >, <=, >=, =, !=, |, &, ), ], comma, ;
76 base          <<var_id>>
77              <<int>>
78              <<bool>>
79              !
80              (
81              <<id>>
82 function_call  <<id>>
83 call_list     <<char>>,<<var_id>>,<<int>>,<<bool>>,!,<(<<id>>
84              )

```