Nhan Le CS370 Output file

I am using lab7_sub.decaf provide from the instruction. You can use make to run it

17							
17	LABEL	Offset	SIZE	LEVEL	type	subtype	
15	_T5	17	1	2			
14	_T4						
13	_T3						
12	_T2						
2	_T1 _T0						
1	_10						
0				1			
201	y f						
101	b	0			INT	Scalar	
1	z						
t_string	Y						
L_string	Z						
	y print string	v					Extern Method
L Offset SIZE LEVEL type subtype 17 1 2 INT Scalar 16 1 2 INT Scalar 13 1 1 2 INT Scalar 13 1 1 1 INT Scalar 14 1 1 INT Scalar 15 1 1 INT Scalar 16 0 0 INT Method 17 1 INT Scalar 18 1 INT Scalar 19 1 100 0 INT Array 19 1 100 0 INT Array 10 1 100 0 INT Scalar 10 1 1 INT Scalar 10 INT Scalar 11	print_string print_int						
17	print_inc		·	·	•	1010	Excell licelou
17							
16	LABEL	0ffset	SIZE	LEVEL	type	subtype	
16	_T11				INT	Scalar	
15	_T10						
13	_T9			2			
12	_T8						
1	_T7 _T6 x						
1	_10			2			
0	v						
0	y f						
101 100 0 101 100 101 100 0	b						
101 100 0 101 107	z						
1 100 0	Y		100	Ø			
t_string	Z	1				Array	
	у	0					
Company	print_string						
1	print_int		Ø	Ø	Ø	VOID	Extern Method
1							
1	LABEL	Offset	SIZE	LEVEL	type	subtype	
0							
0	y f						
101	b						
1	z	201	1	0	INT	Scalar	
t_string	Υ					Array	
t_string	Z						
	у	0					Edward Maddad
	print_string						
11	print_int		v	U	U	AOID	extern Method
11							
11	LABEL	0ffset	SIZE	LEVEL	type	subtype	
10	_T21						
9 1 1 INT Scalar 8 1 1 INT Scalar 7 1 1 INT Scalar 6 1 1 INT Scalar 5 1 1 INT Scalar 6 1 1 INT Scalar 6 1 1 INT Scalar 7 1 1 INT Scalar 8 1 1 INT Scalar 9 1 1 INT Scalar 9 1 1 INT Scalar 9 0 0 0 INT Scalar 1 1 1 INT Scalar	_T20	10	1	1	INT		
7 1 1 INT Scalar 6 1 1 INT Scalar 5 1 1 INT Scalar 4 1 1 INT Scalar 3 1 1 INT Scalar 2 1 1 INT Scalar 0 0 0 0 INT Scalar 0 0 0 0 INT Method 1 1 1 INT Scalar 0 1 1 INT Scalar 0 1 1 INT Scalar 10 1 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar 101 100 0 Extern Method 1 1 0 INT Scalar 1 100 0 INT Scalar 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_T19						
6 1 1 INT Scalar 5 1 1 INT Scalar 4 1 1 INT Scalar 3 1 1 INT Scalar 2 1 1 INT Scalar 0 0 0 INT Scalar 0 1 1 INT Scalar 1 1 1 0 INT Scalar 1 1 1 0 INT Scalar 1 1 1 0 INT Scalar 1 1 10 0 1 INT Scalar 1 1 10 0 1 INT Scalar 1 1 10 0 1 INT Scalar 1 1 10 0 0 INT Array 1 1 10 INT Scalar 1 INT Scalar	_T18						
1	_T17						
4 1 1 INT Scalar 3 1 1 INT Scalar 2 1 1 INT Scalar 0 0 0 INT Method 1 1 1 1 INT Scalar 0 1 8 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar 101 100 0 Extern Method 1. String 1 0 0 0 VOID Extern Method 1. Offset SIZE LEVEL type subtype 0 12 0 INT Method 0 18 0 INT Method 1 0 18 0 INT Scalar 101 100 0 BOOL Array 1 100 0 Radian Method 201 1 1 1 INT Scalar 101 100 0 BOOL Array 1 1 100 0 BOOL Array 1 1 100 0 INT Scalar	_T16						
3 1 1 INT Scalar 2 1 1 INT Scalar 0 0 0 0 INT Method 1 1 1 INT Scalar 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Scalar 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	T15						
2 1 1 INT Scalar 0 0 0 INT Method 1 1 1 INT Scalar 0 1 1 INT Scalar 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 0 INT Array 0 1 0 INT Scalar 101 100 0 OVID Extern Method t_int 0 0 0 0 VOID Extern Method L Offset SIZE LEVEL type subtype 0 12 0 INT Method 0 18 0 INT Method 0 18 0 INT Method 10 10 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Scalar	_T14						
0 0 0 INT Method 1 1 1 INT Scalar 0 1 1 INT Scalar 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar 1 100 0 Extern Method t_int 0 0 0 VOID Extern Method t_int 0 12 0 INT Method 0 18 0 INT Method 0 18 0 INT Method 1 1 0 INT Scalar 1 100 0 BOOL Array 1 I 100 0 Representation of the complete	_T13						
1 1 1 INT Scalar 0 1 1 INT Scalar 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar t_string 0 0 0 VOID Extern Method t_int 0 0 0 0 VOID Extern Method L Offset SIZE LEVEL type subtype 0 12 0 INT Method 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 BOOL Array 1 100 0 INT Scalar	_T12						
0 1 1 INT Scalar 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar t_string 0 0 0 0 VOID Extern Method t_int 0 12 0 INT Method 0 18 0 INT Method 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 1 0 INT Scalar	main arg1						
0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar t_string 0 0 0 VOID Extern Method t_int 0 0 0 0 VOID Extern Method 1 Offset SIZE LEVEL type subtype 0 12 0 INT Method 0 18 0 INT Method 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar	argi arg2						
201	argz f						
101							
1 100 0 INT Array 0 1 0 INT Scalar t_string 0 0 0 0 VOID Extern Method t_int 0 0 0 0 VOID Extern Method L Offset SIZE LEVEL type subtype 0 12 0 INT Method 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Scalar 0 1 0 0 INT Scalar	z Y						
0 1 0 INT Scalar t_string 0 0 0 0 VOID Extern Method t_int 0 0 0 0 VOID Extern Method L Offset SIZE LEVEL type subtype 0 12 0 INT Method 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar	Z					Array	
	у		1	0			
	print_string		0	0	0	VOID	
L Offset SIZE LEVEL type subtype 0 12 0 INT Method 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar	print_int		0	0	0	VOID	
0 12 0 INT Method 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar							
0 12 0 INT Method 0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar							
0 18 0 INT Method 201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar	LABEL						
201 1 0 INT Scalar 101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar	main						
101 100 0 BOOL Array 1 100 0 INT Array 0 1 0 INT Scalar	f						
1 100 0 INT Array 0 1 0 INT Scalar	z						
0 1 0 INT Scalar	Y			0			
	Z						
I STELLIO V V V V VIII STELLION METRON	y print string	U					Extern Method
t_int 0 0 0 VOID Extern Method	print_string		Ø	Ø	Ø	A01D	extern Method

```
Parsing complted
EXTERN FUNC print_int
EXTERN Type INT
END EXTERN with Type: VOID
EXTERN FUNC print_string
EXTERN Type STRING
END EXTERN with Type: VOID
 Package: foo
Variable y with type INT = 7
Variable Z[100] with type INT
Variable Y[100] with type BOOL
Variable z with type INT = 10
METHOD FUNCTION 'f' with type INT
        (
Method Variable b INT
        BLOCK STATEMENT
         BLOCK STAIEMENT
Variable y with type INT
BLOCK STAIEMENT
Variable x[10] with type INT
ASSIGNMENT STATEMENT
Variable x
                EXPR -
EXPR +
CONSTANT INTEGER 2
CONSTANT INTEGER 3
CONSTANT INTEGER 5
             EXPR +
Variable b
METHOD CALL name: f
METHOD ARG
                    unknown type in ASTprint
         BLOCK STATEMENT
Variable x[10] with type INT
ASSIGNMENT STATEMENT
Variable x
                 EXPR -
                  EXPR +
CONSTANT INTEGER 2
CONSTANT INTEGER 3
CONSTANT INTEGER 5
             EXPR +
Variable b
METHOD CALL name: f
METHOD ARG
                    unknown type in ASTprint
    METHOD FUNCTION 'main' with type INT
        Method Variable arg1 INT
Method Variable arg2 INT
        BLOCK STATEMENT
METHOD CALL name: print_int
METHOD ARG
             unknown type in ASTprint
           )
METHOD CALL name: print_int
METHOD ARG
              unknown type in ASTprint
           )
METHOD CALL name: print_string
METHOD ARG
CONSTANT STRING "hello world\n"
Finished printing AST nle@allman:~/CS/CS370/LAB7>
```

nle@allman:~/CS/CS370/LAB7> make run ./lab7 < lab7_sub.decaf

LABEL	Offset	SIZE	LEVEL	type	subtyp	e
T5	17	1	2	INT	Scalar	
_ T4	16	1	2	INT	Scalar	
_ T3	15	1	2	INT	Scalar	
_ T2	14	1	2	INT	Scalar	
	13	1	2	INT	Scalar	
 T0	12	1	2	INT	Scalar	
x	2	10	2	INT	Array	
У	1	1	1	INT	Scalar	
f	0	0	0	INT	Metho	od
b	0	1	1	INT	Scalar	
Z	201	1	0	INT	Scalar	
Υ	101	100	0	BOOL	Array	
Z	1	100	0	INT	Array	
У	0	1	0	INT	Scalar	
print_string		0	0	0	VOID	Extern Method
print_int		0	0	0	VOID	Extern Method
LABEL	Offset		LEVEL		subtyp	e
_T11	17	1	2	INT	Scalar	
_T10	16	1	2	INT	Scalar	
_T9	15	1	2	INT	Scalar	
_T8	14	1	2	INT	Scalar	
_T7	13	1	2	INT	Scalar	
_T6	12	1	2	INT	Scalar	
X	2	10	2	INT	Array	
У	1	1	1	INT	Scalar	
f	0	0	0	INT	Metho	od
b	0	1	1	INT	Scalar	
Z	201	1	0	INT	Scalar	
Υ	101	100	0	BOOL	Array	
Z	1	100	0	INT	Array	
У	0	1	0	INT	Scalar	
print_string		0	0	0	VOID	Extern Method
print_int		0	0	0	VOID	Extern Method
LABEL	Offset	SIZF	LEVEL	type	subtyp	ne
У	1	1	1	INT	Scalar	· -
f	0	0	0	INT	Metho	nd
•	J	J	J	1141	IVICTIO	, u

b z Y Z y print_string print_int	0 201 101 1 0	1 100 100 1 0 0	1 0 0 0 0 0 0	INT INT BOOL INT INT 0	Scalar Scalar Array Array Scalar VOID VOID	Extern Method Extern Method
LABEL	Offset	SIZE	LEVEL	type	subtyp	oe
T21	11	1	1	INT	Scalar	
_ T20	10	1	1	INT	Scalar	
_ T19	9	1	1	INT	Scalar	
_ _T18	8	1	1	INT	Scalar	
_ _T17	7	1	1	INT	Scalar	
_ _T16	6	1	1	INT	Scalar	
_ _T15	5	1	1	INT	Scalar	
_T14	4	1	1	INT	Scalar	
_T13	3	1	1	INT	Scalar	
_T12	2	1	1	INT	Scalar	
main	0	0	0	INT	Metho	od
arg1	1	1	1	INT	Scalar	
arg2	0	1	1	INT	Scalar	
f	0	18	0	INT	Metho	od
Z	201	1	0	INT	Scalar	
Υ	101	100	0	BOOL	Array	
Z	1	100	0	INT	Array	
У	0	1	0	INT	Scalar	
print_string		0	0	0	VOID	Extern Method
print_int		0	0	0	VOID	Extern Method
LABEL	Offset	SIZE	LEVEL	type	subtyp	oe
main	0	12	0	INT	Metho	od
f	0	18	0	INT	Metho	od
Z	201	1	0	INT	Scalar	
Υ	101	100	0	BOOL	Array	
Z	1	100	0	INT	Array	
У	0	1	0	INT	Scalar	
print_string		0	0	0	VOID	Extern Method
print_int		0	0	0	VOID	Extern Method

Parsing complted EXTERN FUNC print_int

```
EXTERN Type INT
END EXTERN with Type: VOID
EXTERN FUNC print_string
EXTERN Type STRING
END EXTERN with Type: VOID
Package: foo
  Variable y with type INT = 7
Variable Z[100] with type INT
Variable Y[100] with type BOOL
Variable z with type INT = 10
 METHOD FUNCTION 'f' with type INT
 Method Variable b INT
 BLOCK STATEMENT
  Variable y with type INT
  BLOCK STATEMENT
  Variable x[10] with type INT
  ASSIGNMENT STATEMENT
   Variable x
    EXPR -
    EXPR +
     CONSTANT INTEGER 2
     CONSTANT INTEGER 3
    CONSTANT INTEGER 5
    ]
   EXPR +
   Variable b
    METHOD CALL name: f
    (
METHOD ARG
    unknown type in ASTprint
    )
  BLOCK STATEMENT
  Variable x[10] with type INT
  ASSIGNMENT STATEMENT
   Variable x
    EXPR -
    EXPR +
     CONSTANT INTEGER 2
```

```
CONSTANT INTEGER 3
    CONSTANT INTEGER 5
    ]
   EXPR +
   Variable b
    METHOD CALL name: f
METHOD ARG
    unknown type in ASTprint
 METHOD FUNCTION 'main' with type INT
  Method Variable arg1 INT
  Method Variable arg2 INT
  BLOCK STATEMENT
  METHOD CALL name: print_int
METHOD ARG
   unknown type in ASTprint
  METHOD CALL name: print_int
   (
METHOD ARG
   unknown type in ASTprint
  METHOD CALL name: print_string
METHOD ARG
   CONSTANT STRING "hello world\n"
   )
Finished printing AST
nle@allman:~/CS/CS370/LAB7>
```