

Sample success scenario

```

get yakety yak tab.c 1x1j7re 0 jsgc
• {cslinux1:~/cs4386/yakety-yak} ./jsgc sample.txt
Type: int
Type: int
Type: int
Var_Declarations: empty
Declaration: TEMP as int
Declaration: BIGGER as int
Declaration: SMALLER as int
Assignment(READINT): BIGGER := readInt
Assignment: BIGGER COMPLETE
Assignment(READINT): SMALLER := readInt
Assignment: SMALLER COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expression(OP4): SMALLER > BIGGER
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Expressions: SMALLER
Assignment(Expressions): TEMP := SMALLER
Assignment: TEMP COMPLETE
Factor(NUM): 2147483648
Term: 2147483648
Expression: 2147483648
Expressions: 2147483648
Assignment(Expressions): TEMP1 := 2147483648
Assignment: TEMP1 COMPLETE
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expressions: BIGGER
Assignment(Expressions): SMALLER := BIGGER
Assignment: SMALLER COMPLETE
Factor(ident): TEMP
Term: TEMP
Expression: TEMP
Expressions: TEMP
Assignment(Expressions): BIGGER := TEMP
Assignment: BIGGER COMPLETE
Statements: empty
Statements: BIGGER SC Statements
Statements: SMALLER SC Statements
Statements: TEMP1 SC Statements
Statements: TEMP SC Statements
ElseStatement: empty
IfStatement: SMALLER THEN Statements ElseStatement
IfStatement: if COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(NUM): 0
Term: 0
Expression: 0
Expression(OP4): SMALLER > 0
Factor(ident): BIGGER
Term: BIGGER
Factor(ident): SMALLER
Term: SMALLER
Expression(OP3): BIGGER - SMALLER
Expressions: BIGGER
Assignment(Expressions): BIGGER := BIGGER
Assignment: BIGGER COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expression(OP4): SMALLER > BIGGER
Factor(ident): SMALLER

```

```

IfStatement: if COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(NUM): 0
Term: 0
Expression: 0
Expression(OP4): SMALLER > 0
Factor(ident): BIGGER
Term: BIGGER
Factor(ident): SMALLER
Term: SMALLER
Expression(OP3): BIGGER - SMALLER
Expressions: BIGGER
Assignment(Expressions): BIGGER := BIGGER
Assignment: BIGGER COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expression(OP4): SMALLER > BIGGER
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Expressions: SMALLER
Assignment(Expressions): TEMP := SMALLER
Assignment: TEMP COMPLETE
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expressions: BIGGER
Assignment(Expressions): SMALLER := BIGGER
Assignment: SMALLER COMPLETE
Factor(ident): TEMP
Term: TEMP
Expression: TEMP
Expressions: TEMP
Assignment(Expressions): BIGGER := TEMP
Assignment: BIGGER COMPLETE
Statements: empty
Statements: BIGGER SC Statements
Statements: SMALLER SC Statements
Statements: TEMP SC Statements
ElseStatement: empty
IfStatement: SMALLER THEN Statements ElseStatement
IfStatement: if COMPLETE
Statements: empty
Statements: if SC Statements
Statements: BIGGER SC Statements
WhileStatement: while SMALLER DO BIGGER END
WhileStatement: while COMPLETE
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expressions: BIGGER
WriteIntStatement: BIGGER
WriteIntStatement: writeInt COMPLETE
Statements: empty
Statements: writeInt SC Statements
Statements: while SC Statements
Statements: if SC Statements
Statements: SMALLER SC Statements
Statements: BIGGER SC Statements
program

SUCCESS

```

Example failure scenario

```
• {cslinux1:~/cs4386/yakety-yak} ./jsgc failure.txt
Type: int
Type: int
Error: Unrecognized Token: $
Type: int
Var_Declarations: empty
Declaration: TEMP as int
Declaration: BIGGER as int
Declaration: SMALLER as int
Error: Unrecognized Token: :
Assignment(READINT): BIGGER := readInt
Assignment: BIGGER COMPLETE
Assignment(READINT): SMALLER := readInt
Assignment: SMALLER COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expression(OP4): SMALLER > BIGGER
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Expressions: SMALLER
Assignment(Expressions): TEMP := SMALLER
Assignment: TEMP COMPLETE
Factor(NUM): 2147483648
Term: 2147483648
Expression: 2147483648
Expressions: 2147483648
Assignment(Expressions): TEMP1 := 2147483648
Assignment: TEMP1 COMPLETE
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expressions: BIGGER
Assignment(Expressions): SMALLER := BIGGER
Assignment: SMALLER COMPLETE
Factor(ident): TEMP
Term: TEMP
Expression: TEMP
Expressions: TEMP
Assignment(Expressions): BIGGER := TEMP
Assignment: BIGGER COMPLETE
Statements: empty
Statements: BIGGER SC Statements
Statements: SMALLER SC Statements
Statements: TEMP1 SC Statements
Statements: TEMP SC Statements
ElseStatement: empty
IfStatement: SMALLER THEN Statements ElseStatement
IfStatement: if COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(NUM): 0
Term: 0
Expression: 0
Expression(OP4): SMALLER > 0
Factor(ident): BIGGER
Term: BIGGER
Factor(ident): SMALLER
Term: SMALLER
Expression(OP3): BIGGER - SMALLER
Expressions: BIGGER
Assignment(Expressions): BIGGER := BIGGER
Assignment: BIGGER COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expression(OP4): SMALLER > BIGGER
Factor(ident): SMALLER
Term: SMALLER
```

```

Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(NUM): 0
Term: 0
Expression: 0
Expression(OP4): SMALLER > 0
Factor(ident): BIGGER
Term: BIGGER
Factor(ident): SMALLER
Term: SMALLER
Expression(OP3): BIGGER - SMALLER
Expressions: BIGGER
Assignment(Expressions): BIGGER := BIGGER
Assignment: BIGGER COMPLETE
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expression(OP4): SMALLER > BIGGER
Factor(ident): SMALLER
Term: SMALLER
Expression: SMALLER
Expressions: SMALLER
Assignment(Expressions): TEMP := SMALLER
Assignment: TEMP COMPLETE
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expressions: BIGGER
Assignment(Expressions): SMALLER := BIGGER
Assignment: SMALLER COMPLETE
Factor(ident): TEMP
Term: TEMP
Expression: TEMP
Expressions: TEMP
Assignment(Expressions): BIGGER := TEMP
Assignment: BIGGER COMPLETE
Statements: empty
Statements: BIGGER SC Statements
Statements: SMALLER SC Statements
Statements: TEMP SC Statements
ElseStatement: empty
IfStatement: SMALLER THEN Statements ElseStatement
IfStatement: if COMPLETE
Statements: empty
Statements: if SC Statements
Statements: BIGGER SC Statements
WhileStatement: while SMALLER DO BIGGER END
WhileStatement: while COMPLETE
Factor(ident): BIGGER
Term: BIGGER
Expression: BIGGER
Expressions: BIGGER
WriteIntStatement: BIGGER
WriteIntStatement: writeInt COMPLETE
Statements: empty
Statements: writeInt SC Statements
Statements: while SC Statements
Statements: if SC Statements
Statements: SMALLER SC Statements
Statements: BIGGER SC Statements
program
Error: syntax error

```

There were errors found.