

CS 142A Homework 4

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Complex Correct Input

```
utsav@Aspire:~/work/school/cs142a/hw4$ cat test_input
declare
  i: integer;
  b: boolean;
begin
  get(i);
  b := false;
  b := i<10 and not b;
  declare
    b: integer;
  begin
    b := 5;
    i := 2*(i+b);
  end;
  b := 1<i and i<35 and not b;
  put(i);
  put(b);
end;
```

```
utsav@Aspire:~/work/school/cs142a/hw4$ ./parser < test_input
Entering Scope...
Entering Scope...
---
b:boolean
---
Exiting Scope...
---
b:boolean
i:boolean
---
Exiting Scope...
utsav@Aspire:~/work/school/cs142a/hw4$ s
```

Complex Incorrect Input

```
Exiting Scope...
utsav@Aspire:~/work/school/cs142a/hw4$ ./parser < wrongInput
Entering Scope...
ERROR: undeclared type assignment
Entering Scope...
ERROR: * operator has invalid operands
ERROR: * operator has invalid operands
ERROR: + operator has invalid operands
ERROR: + operator has invalid operands
ERROR: Invalid assignment
ERROR: Invalid operand for AND operator
ERROR: Invalid operand for AND operator
ERROR: Invalid assignment
ERROR: * operator has invalid operands
ERROR: * operator has invalid operands
ERROR: < operator invalid operand type
---
b:boolean
c:boolean
---
Exiting Scope...
Invalid output_statement
---
c:boolean
b:boolean
a:boolean
---
Exiting Scope...
```

```
utsav@Aspire:~/work/school/cs142a/hw4$ cat wrongInput
declare
    a: integer;
    b: boolean;
    d: nonexistent_type;
    c: boolean;
begin
    declare
        c: boolean;
        b: integer;
    begin
        b := 4;
        a := 2*(c+b);
        c := true and 1;
        c := false;
        i := 1 + true;
        f := 1 < c;
    end;
    put(d);
    get(a);
end;
```