Simple Programs

Hello World

Code

```
print "Hello, World!";
```

Output

```
Hello, World!
```

FizzBuzz

Code

```
-- Example FizzBuzz program written in Verbose

create new variable called START_NUM with the value of 1;
create new variable called END_NUM with the value of 100;

for variable num with the values from START_NUM to END_NUM do:
    if the value of num % 15 is equal to 0 then do:
        print "FizzBuzz";
    ; else if the value of num % 3 is equal to 0 then do:
        print "Fizz";
    ; else if the value of num % 5 is equal to 0 then do:
        print "Buzz";
    ; else then do:
        print num;
    ;
;
```

Output

```
\Verbose> python verbose.py .\examples\fizzbuzz.verb
1
2
```

```
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
11
Fizz
13
14
FizzBuzz
16
17
Fizz
19
Buzz
Fizz
22
23
Fizz
Buzz
26
Fizz
28
29
FizzBuzz
31
32
Fizz
34
Buzz
Fizz
37
38
Fizz
Buzz
41
Fizz
43
44
FizzBuzz
```

```
46
47
Fizz
49
Buzz
Fizz
52
53
Fizz
Buzz
56
Fizz
58
59
FizzBuzz
61
62
Fizz
64
Buzz
Fizz
67
68
Fizz
Buzz
71
Fizz
73
74
FizzBuzz
76
77
Fizz
79
Buzz
Fizz
82
83
Fizz
Buzz
86
Fizz
88
```

```
89
FizzBuzz
91
92
Fizz
94
Buzz
Fizz
97
98
Fizz
Buzz
```

Complex Programs

Fibonacci Calculator

Code

```
-- Target Fibonacci number to calculate
create new variable called target with the value of 10;

-- Instantiate starting conditions
create new variable called F_0 with the value of 0;
create new variable called F_1 with the value of 1;

if the value of target is equal to 0 then do:
    print "Fibonacci_" target " is equal to " F_0;
; else if the value of target is equal to 1 then do:
    print "Fibonacci_" target " is equal to " F_1;
; else then do:
    print "Fibonacci_" 0 " is equal to " F_0;
    print "Fibonacci_" 1 " is equal to " F_1;
    create new variable called temp;
    for variable i with the values from 2 to target do:
        assign the value of F_0 + F_1 to the variable temp;
        assign the value of F_1 to the variable F_0;
        assign the value of temp to the variable F_1;
        print "Fibonacci_" i " is equal to " F_1;
    ;
;
```

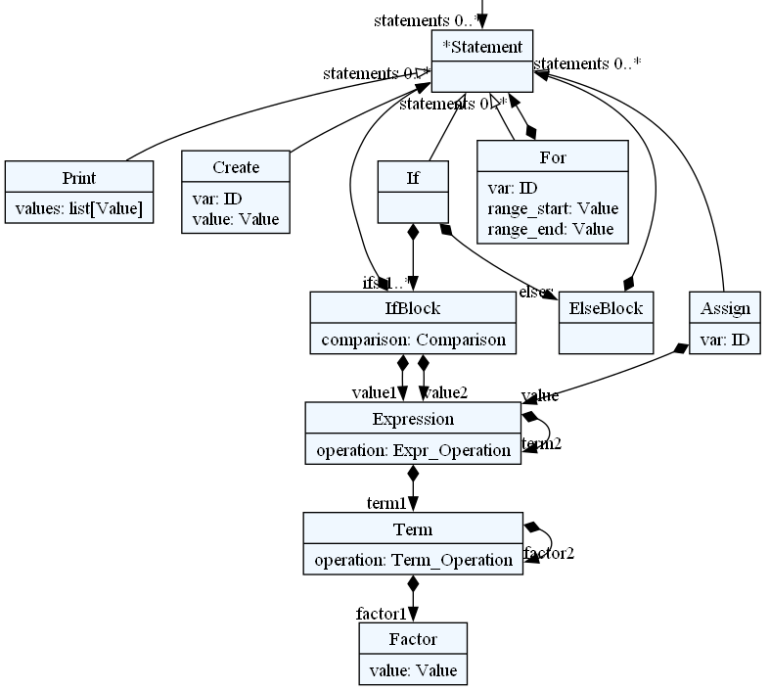
Output

```
\Verbose> python verbose.py .\examples\fibonacci.verb
Fibonacci_0 is equal to 0
Fibonacci_1 is equal to 1
Fibonacci_2 is equal to 1
Fibonacci_3 is equal to 2
Fibonacci_4 is equal to 3
Fibonacci_5 is equal to 5
Fibonacci_6 is equal to 8
Fibonacci_7 is equal to 13
Fibonacci_8 is equal to 21
Fibonacci_9 is equal to 34
Fibonacci_10 is equal to 55
```

Code Tree Diagrams

The TextX Grammar File

Comment	-- .*$
Comparison	equal to|not equal to|less than|greater than|less than or equal to|greater than or equal to
Expr_Operation	+|-
Number	INT|FLOAT
String	STRING
Term_Operation	*|/|%
Value	ID|STRING
Variable	ID



The Evaluation of The FizzBuzz Program w/Verbose Grammar