Codeable

A highly-readable programming language
designed for software newcomers

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In partial fulfillment of the requirements for

1 Grammar

```
// Initial Definitions
'identifier' := \w+(-\w+)*
'identifier_answer' := answer

'block' := 'assignment' \n
'block' := 'assignment' \n 'block'
'block' := 'print_statement' \n
'block' := 'print_statement' \n 'block'


// Requirement 1a
'boolean' := true
'boolean' := false
'expression_boolean' := 'expression_boolean' and '
    expression_boolean'
'expression_boolean' := 'expression_boolean' or '
    expression_boolean'
'expression_boolean' := not 'expression_boolean'


// Requirement 1b
'number' := [0-9]+(\.[0-9]+)?

'expression' := 'number'
'expression' := 'boolean'
'expression' := 'string'
'expression' := 'identifier'
'expression' := 'ternary'
'expression' := 'function_call'
'expression' := 'expression' plus 'expression'
'expression' := 'expression' minus 'expression'
'expression' := 'expression' times 'expression'
'expression' := 'expression' divided-by 'expression'


// Requirement 1c
'string' := 'identifier'
'string' := 'identifier' 'string'


// Requirement 2
'assignment' := 'identifier' equals 'expression'
'assignment_answer' := 'identifier_answer' equals '
```

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    expression '


// Requirement 3a
'ternary ' := 'expression ' if 'expression_boolean '
    otherwise 'expression '


// Requirement 3b
'if_statement ' := if 'expression_boolean ' \n 'block ' \n
    move-on
'if_statement ' := if 'expression_boolean ' \n 'block ' \n
    otherwise \n 'block ' \n move-on
'if_statement ' := if 'expression_boolean ' \n 'block ' \n
    otherwise 'if_statement ' \n move-on


// Requirement 4a
'loop_for ' := for 'identifier ' from 'identifer ' \n 'block
    ' \n repeat


// Requirement 4b
'loop_while ' := while 'expression_boolean ' \n 'block ' \n
    repeat


// Requirement 4c
// TODO - I'm_thinking_that_"range(2,5)"_could_be_a_
    function_that_returns_an_iterable_collection._That's
    how Python does it ...


// Requirement 5
'print_statement ' := show-value-of 'identifier '


// Other Features: Functions
'argument ' := 'identifier '
'argument_list ' := 'argument '
'argument_list ' := 'argument ' with 'argument_list '

'function_definition ' := 'identifier ' needs '
    argument_list ' \n 'block ' \n 'assignment_answer ' \n

'function_call ' := 'identifier ' of 'argument_list '
```

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// Other Features: Comments
'comment' := fyi 'string' \n
```

2 Implementation Tooling

2.1 Tokenizer

2.2 Parser

2.3 Evaluator

3 Contribution Plan