Software Engineering PR280

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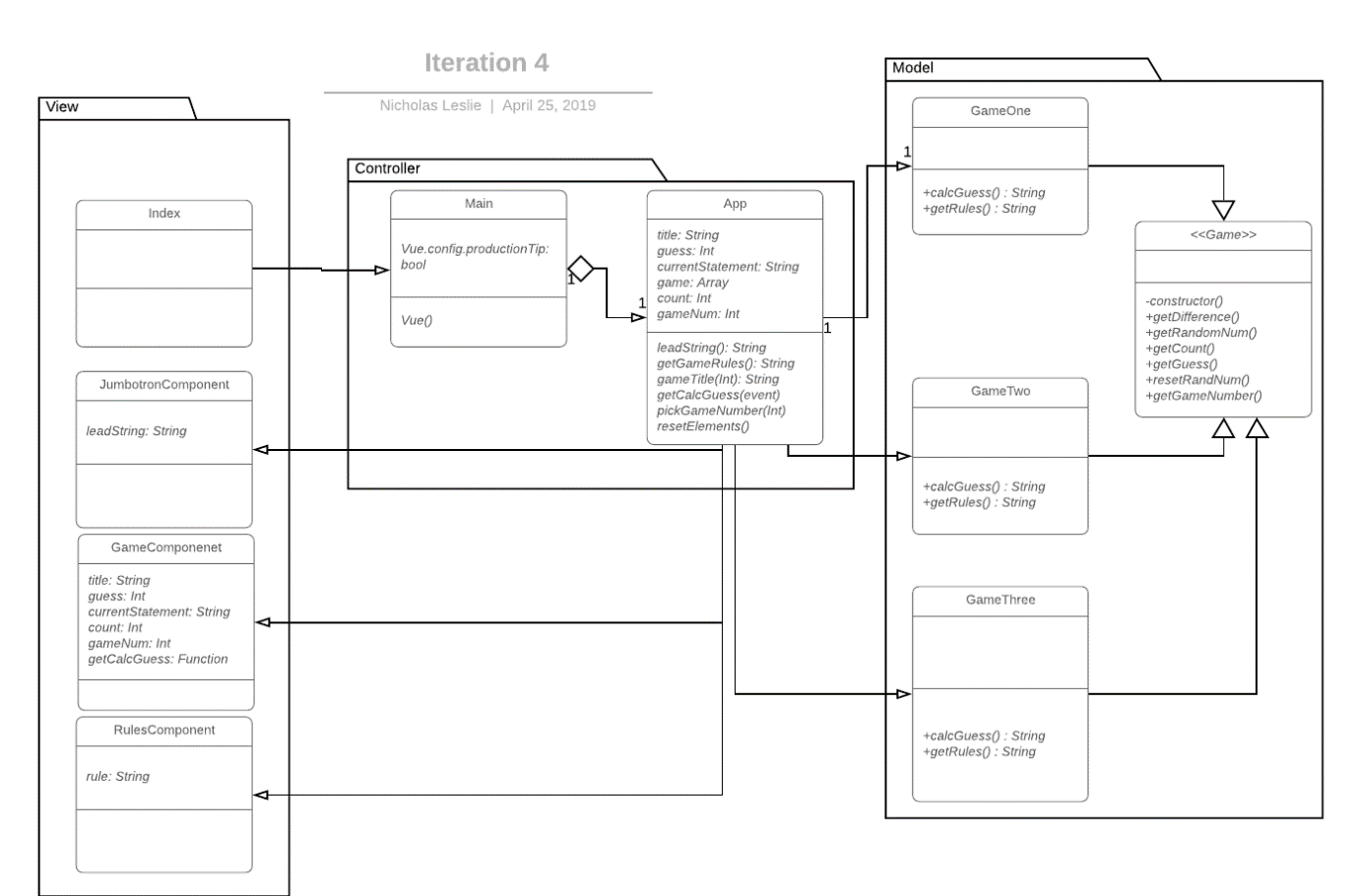
Iteration 4

## Plan/Goal

Complete Appendix Two, Task 3.

* Write a program to play a number guessing game. The USER mentally selects a number between 0 and 99 and the computer ties to guess it. The computer outputs its guess, and the User response with "Try higher", "Try lower" or “correct”. The computer should keep count of the number of guesses. The computer should complain if the USER has lied.

## Design Level Class Diagram



## Plan for how the program feature of an iteration you are working will work

**PLANNING A COMPLEX ALGORITHM**

**Iteration 4**

**DESIGN THE ROUTINE**

CHECK PREREQUISITES

Define the problem

*User guesses a number. Computer must return a random number.*

*If the number is low, user says it must be higher. Computer must then return a number higher than its randomly guessed number.*

*If the number is high, user says it must be lower. Computer must return a number lower than its randomly guessed number.*

*Continue until user says that is correct.*

Information the routine will hide

None

Inputs to the routine

*User inputs (Guess is too low, guess is too high, correct answer)*

Outputs from the routine

Randomly generated number between 0 and 99.

Pre-conditions

*Randomly generated number*

Post-conditions

Name the Routine

*calcGuess()*

Decide how to test the routine

Should return a number

If user said “Higher”. Should return a number higher than previous

If user said “Lower”, should return a number lower than previous

Research functionality available in standard libraries

Think about error handling

Think about efficiency

Research algorithms & data types

**PSEUDOCODE**

* User clicks play
* Return random number between 0 and 99
* Try higher
* Random number now between N and 99
* Repeat
* User says correct

# Testing Planning

# StandardJS report

# Run the tests

# Error Log (With at least 5 errors)

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# Process Improvement Proposal (With at least 5 PIPs)