

DESIGNING AND IMPLEMENTING RALANG

RALANG IS A PROGRAMMING LANGUAGE FOR BEGINNERS.

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OVERVIEW

LITERATURE

TECHNOLOGIES & TOOLS

DESIGN AND IMPLEMENTATION

TESTING & QUESTIONNAIRE RESULTS

DEVELOPMENT PROCESS

TECHNICAL ISSUES

FURTHER WORK

RESOURCES



LITERATURE

1. The syntax of the language should be relatively easy for students taking a programming module in higher education.
2. correctness of the program rather the program's efficiency.
3. compile source code both for Linux and Windows operating system.



TECHNOLOGIES & TOOLS



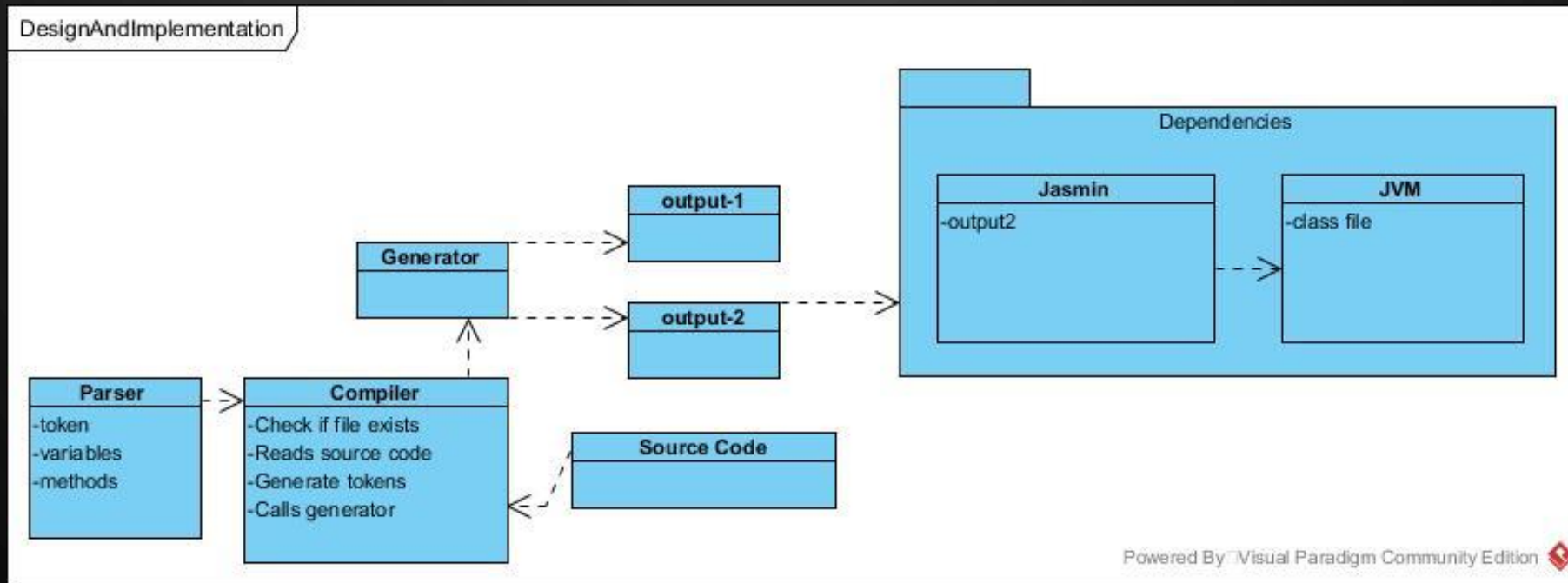
JVM



Clojure



DESIGN AND IMPLEMENTATION



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TESTS & QUESTIONNAIRE RESULTS

BLACK-BOX TESTING

17 DIFFERENT TESTS BOTH ON WINDOWS AND LINUX

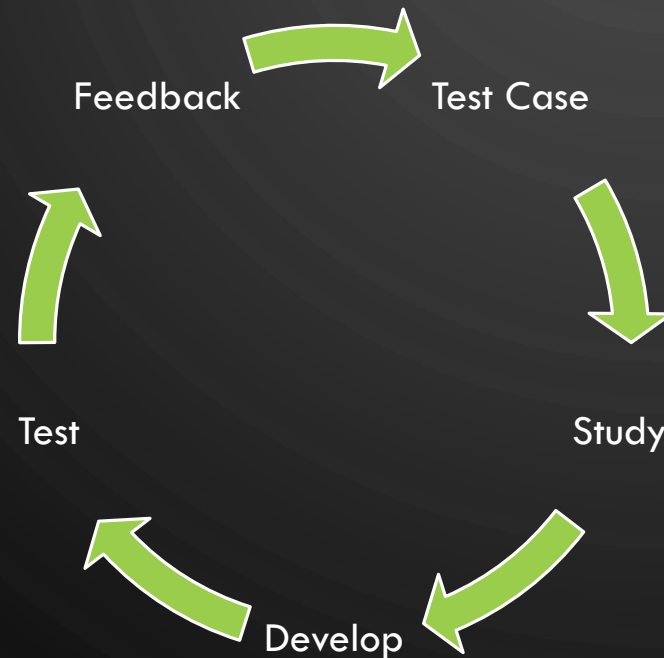
QUESTIONNAIRE

HALF REALLY LIKE RALANG'S SYNTAX

12.5% SAID CONTROL FLOW IS NOT CLEAR



DEVELOPMENT PROCESS



3 things to **Consider**:

- Yield meaning
- Consistency
- Interpretation

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TECHNICAL ISSUES

DESIGNING PROCESS

5 YEAR OLD LAPTOP

A QUOTE FROM JASMIN'S ABOUT PAGE:

"GENERATING A BINARY JAVA .CLASS FILE IS PRETTY FIDDLY."



FURTHER WORK

DOCUMENTATION

UNIT TESTING

CODE OPTIMISATION

USER-DEFINED DATATYPES

RESEARCH STUDY



RESOURCES

COMPILERS – PRINCIPLES, TOOLS & TECHNIQUES

LET'S BUILD A COMPILER BY JACK CRENSHAW

JAVA VIRTUAL MACHINE ONLINE INSTRUCTION REFERENCE

JASMIN INSTRUCTIONS AND JASMIN USER GUIDE BY JONATHAN MEYER

CLOJURE OFFICIAL DOCS AND STACK OVERFLOW (MINIMAL)



THANK YOU

