Software Engineering
project - 1
MIPS Assembly Language Programming 2

Team 6

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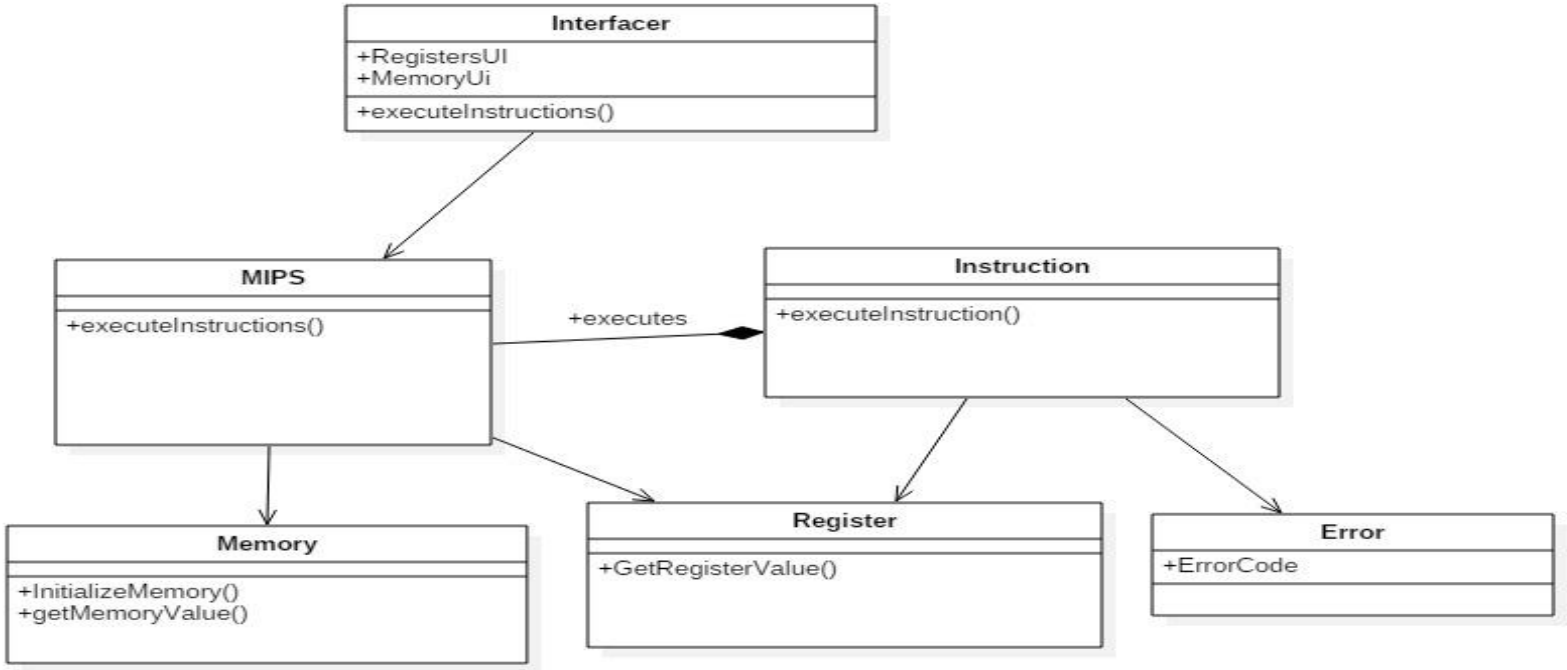
Introduction

MIPS is a reduced instruction set computer(RISC) instruction set architecture (ISA).

MIPS is a register based architecture, meaning the CPU uses registers to perform operations.

Our project focuses on refactoring the current Java based simulator for MIPS.

Current code structure



CODE SMELLS

Register.java

- Meaningless Comments.
- Unnecessary conditional blocks.
- Too many Hard coded values.

Error.java

- Data clumps.
- Indecent exposure.

CODE SMELLS (CONTD.)

Memory.java

- Hard coded hexadecimal addresses.
- Non communicative identifiers.
- Error Handling.

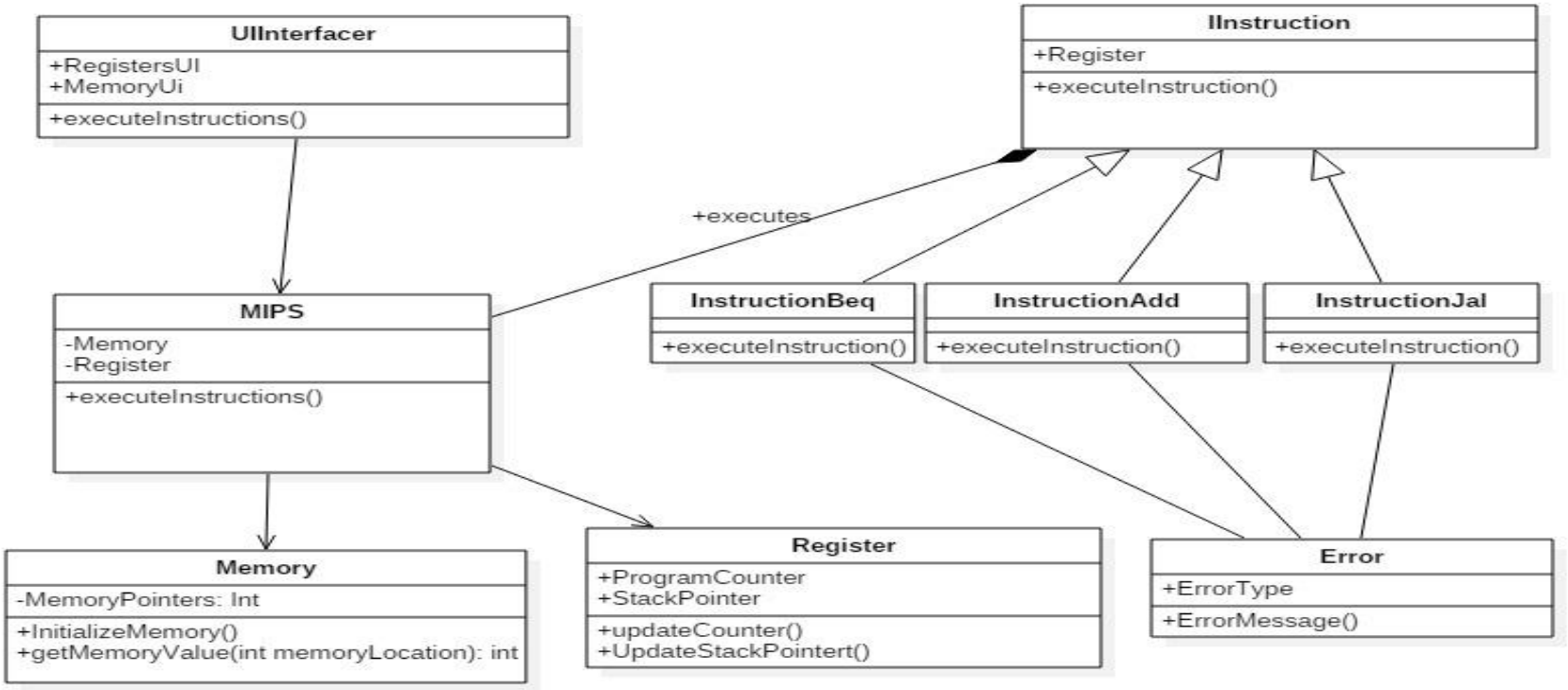
Instruction.java

- Very high Conditional Complexity.
- Code duplication.

More Problems

- No documentation for the code base.
- Instruction.java issues multiple commands via different mechanisms (Command Pattern should be used).
- High Coupling.

PROPOSED STRUCTURE



Thank You