MIPS Assembly Language Programing - I

Team 5
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Timeline

Milestones	Time Period
Understand existing Java code base	02-Feb-2016
Understand current design patterns and anti-patterns and see how we could fit it into javascript (ReEng)	04-Feb-2016
Conversion to Javascript	09-Feb-2016
Updated test cases (functional and non-functional)	10-Feb-2016
Updated Quality Metric for Javascript	11-Feb-2016
Refactoring javascript code	15-Feb-2016

Bugs Detected

1) Opening any .asm file gives “null filename.asm (No such file or directory)” error even if the files exists.
2) All new files are self-named with mips(number).asm where number keeps increasing with every new file. User should be able to name the new file.
   And also suppose user is currently working with mips2.asm and he opens 2 new files then the name of second new file is also mips2.asm which can lead to confusion.

3) The error in assembling the code does not give the line number. Example:
   Suppose Someone mistypes li for load he will get this error
   “Directive in line no
     load is not supported !”

4) Select all in Edit Menu does not work with Sample Codes.
5) Copy in Edit Menu does not work with Sample Codes.
6) Help does not have clear documentation for instructions in MIPS.

Quality Metrics

We will be using CodePro plugin available in eclipse IDE for finding the following Quality Metrics :

1. Abstractness
2. Average Block Depth
3. Average Cyclomatic Complexity
4. Average Lines Of Code Per Method
5. Average Number of Constructors Per Type
6. Average Number of Fields Per Type
7. Average Number of Methods Per Type
8. Average Number of Parameters
9. Comments Ratio
10. Efferent Couplings
11. Lines of Code
12. Number of Characters
13. Number of Comments
14. Number of Constructors
15. Number of Fields
16. Number of Lines
17. Number of Methods
18. Number of Packages
19. Number of Semicolons
20. Number of Types

21. Weighted Methods

The output of the CodePro is attached in the zip also.