Code Formatting and Syntax Review Tool for JavaScript Code

Samprity Kashyap Electrical and Communication Engineering Department, UBC samprity.kashyap@alumni.ubc.ca Harshdeep Brar
Electrical and Communication
Engineering Department, UBC
brar32@ece.ubc.ca

Arun Marria
Electrical and Communication
Engineering Department, UBC
arun.marria@ece.ubc.ca

ABSTRACT

In the paper, we describe the implementation and the benefit of a code formatting and syntax review tool for JavaScript. The tool can be used to detect syntax errors and format the code as per the team's coding conventions. We plan to integrate the tool as a google chrome extension.

1. PROBLEM STATEMENT

Detection of syntax errors is a painstaking task while writing JavaScript code. Further, programmers generally find implementation of a team's coding conventions as a time consuming task

2. MOTIVATION

A tool to detect syntax errors in JavaScript can make the code writing and debugging task easier for a programmer. Following the coding conventions can enhance the readability of the code and make bug detection easier. Further, it can also help in version control by making it easier to visualize the changes made in the code. A tool that detects absence of implementation of coding conventions and implements them automatically and/or reminds the programmer to implement them can enhance programmer's productivity.

3. OBJECTIVE

We plan to implement a static analysis tool that detects syntax errors in JavaScript such as:

- Missing semicolons, commas, braces, etc.
- Switch construct with case statements without a break statement
- Redundant statements
- Number of parameters in a method

In terms of implementing code conventions, we plan to include features such as:

- Maximum length of line
- Indentation
- Different text color for methods and variables

4. TIMELINE

January 31 – Complete literature survey

February 15 – Syntax error detection code implementation

March 1 – Coding convention code implementation

March 10 – Testing and user feedback

March 21 – Complete conference paper

5. RESOURCES

We are planning to use JavaScript, HTML, CSS to implement the tool as a google chrome extension or a standalone application

6. REFERENCES

- [1] http://jshint.com
- [2] https://developers.google.com/closure/compiler/
- [3] http://surelogic.com/jsure.html

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6.1.1 Subsubsections

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6.1.1.2 Subsubsections

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7. ACKNOWLEDGMENTS

Our thanks to ACM SIGCHI for allowing us to modify templates they had developed.

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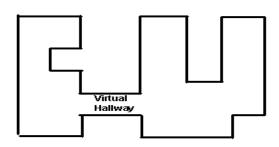


Figure 1. Insert caption to place caption below figure.

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