**Code Improvement Report**

**Project Description**

The project is to write a boggle solver program in JavaScript language. This project is for CSCI-375-01 Software Engineering class. The aim of this project is to return a list of words contained in the given dictionary and can be formed from the given valid grid of letters following some rules. The rules are as follows:

* The word must use adjacent ties, including diagonals
* Each word may not use a cube more than once
* Words must be at least 3 letters long

**Reviewers**

* Michael C Obi

Following is the review from Michael C Obi:

* I like you labeled each function and what it does, great readability
* comments consistent throughout program
* functions broken down to be easily modified
* variable declarations
* if (grid == null || dictionary == null) return solutions;
  + Good for concise purposes but can be rewritten out better for readability
* overall liked the program. Very readable and good usage of dot operators. Runs efficiently too(tested myself)
* Jamul A MacNear

No Response

**Defects Found**

* In line 132 -> if (grid == null || dictionary == null) return solutions;

**Summary of recommendation**

The recommended change is a readability improvements. I have used isValidGrid function to check if the given grid is valid or not. Because of this reason, I also believe that it makes more sense to include the condition if (grid == null) within the isValidGrid function as the purpose of isValidGrid is to check if the value of grid is such that we can move ahead to find the solution. If the grid is null then we can just return the empty list. Therefore, I included the if (grid==null) within the isValidGrid function and changed the statement in line 132 to if (dictionary==null) return []; an empty list.

**Review Time and Defects found**

* Michael C Obi

I believe that reviewer did a great job in being able to understand the control flow of the program and the function of each procedure. He provided me with good feedback by saying that my comments really helped him to follow the code, use of different functions for different tasks which would help in mutability, good readability, and even tested my code by himself and confirmed it to be working properly. The only improvement he suggested me is to break down the statement in line 132 for better readability or say it make more sense according to the design of the program. This reviewer identified 1 defect and spent around 40 minutes in reviewing the code.

* Jamul A MacNear

No Response