**Topics in Software Engineering**

**Assignment#2**

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**Visual Studio Code**

1. **Refactoring Strategies**

**1.1 Abstraction**

Microsoft adopted abstraction for VS Code, because it was a large scale project and Javascript’s ecosystem is evolving for the last few years rapidly, So in this case, abstraction is preferred, because code adjustments are done and performed gradually with time. Software will run while changes will be accommodated accordingly with the passage of time.

**1.2 Extract Method**

Microsoft adopted extraction for VS Code to maximize the readability of the code facing problems, standardizing the structure, and simplifying.

**1.3 Simplifying Method**

Microsoft adopted simplifying for VS Code to simplify the parameters with the help of balancing the interaction between various classes. Moreover it helps to restructure their interfaces.

1. **How Do They Apply Rewrite?**

Microsoft adopted a rewrite strategy for VS- code as Visual studios was a heavy weight project then did not start quite from scratch as they already had in-browser monaco editor. Visual Studio code is a node.js app that's why it was easy for them to access and use the javascript ecosystem. They used the Brush-up rewrite as the new versions are always better than the old one. Visual Studio code is also better than Visual Studio in terms of weight, size, speed and accessibility.

1. **Change in the project  
   3.1 Old Features** 3.1.1Search results in a tree view.  
    3.1.2 File rename selection by pressing F2.  
    3.1.3 Title bar customization hide and show.  
    3.1.4 Pre release extensions.  
    3.1.5 Do not disturb Mode  
    3.1.6 Switch between dark and light mode  
    3.1.7 Identification of deprecated technologies  
    3.1.8 Display more views with new side panels.  
    3.1.9 Toolbar customization  
    3.1.10 Nested Git Repo support

**3.2 Newly added changes** 3.2.1 Manage Unsafe Repositories.  
 3.2.2 Audio cues for notebooks and different views.  
 3.2.3 Customize explorer auto reveals  
 3.2.4 Hide activated bar and panel badges  
 3.2.5 Merge editor undo and redo  
 3.2.6 JavaScript console.profile collection.  
 3.2.7 Go to definition from return  
 3.2.8 Remote tunnel  
 3.2.9 Dev container Gpu support  
 3.2.10 Just my code debugging **3.3 Changes for each version:**  3.3.1 Workbench  
 3.3.2 Language  
 3.3.3 Extension authoring  
 3.3.4 Accessibility  
 3.3.5 Debugging  **3.4 Current state**In current state the speed to save files, more extensions, remote tunnel, sharing profiles and such features are added. Because of this, debugging is also improved as auto correction and suggestions help us to find and improve our code. This helps us not only in coding but also it saves our time.