



Software Quality: Final Project Proposal

Software Quality Test of Interview Prep Notebook

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INTRODUCTION

Group 8 has selected to revise and improve Yangshun Tay's open source 'Tech-Interview Handbook' software which will furthermore be referred to as "The Handbook". We have selected to improve this design as it is a simple program which still adheres to the standards of software design and development. We also believe that through minor modifications and expansion the program will be invaluable to not only our group but other students as well. Given the straightforward view of possible improvements, the value such a project could provide to the group, as well as the group's comfort level and experience with the languages used, it was a simple selection.

The Handbook is a free, curated set of interview revision materials for engineers to better prepare for technical interviews. It's contents include a variety of interview preparation tactics including; resume building guides, intuition practice questions, as well as behavioral questions which could arise during the interview process.

The Handbook is coded primarily with JavaScript accounting for just over 67%, as well as incorporating smaller amounts of Python, HTML5, and CSS. Given JavaScripts many distinguished testing frameworks such as Mocha and Jasmine which function with high similarity to Junit tests, as such the group feels very comfortable approaching this challenge from a technical and experience standpoint.

BODY

We believe there are many changes which can be made to The Handbook in order to make it more beneficial and increase its usability. These points can be broken down into three primary subjects 1. Improving the graphic user interface, 2. Improving the over quality of the backend code for smoother interactions with fewer errors, and finally 3. Improving the question bank.

Some examples of updates to code would include adding the functionality of a resource page which selectively combs through data providing links to accredited websites which provide explanations, examples, and tutorials for desired and related subjects, as well as improving the reactivity of the webpage. Through updating JavaScript commands and HTML links it is possible to restructure the webpage to dynamically track the users mouse movement and actions to lead into the next page providing a smoother transition. Other smaller adjustments could include a collapsible option for the navigation window as well as a dynamic fit better adjusting the webpage to different resolution screens.

Potential test cases for the above mentioned improvements can be done in a number of ways. Some functional test cases would include testing the correctness of added questions, ensuring that a correctly answered question returns 1 and an incorrectly answered question returns 0 for all combinations of answers. Some functional test cases would include the proper linking of pages through the automatic linkage introduced through scrolling between pages.

In conclusion The changes we are suggesting would not only make the Handbook more user friendly it would also improve its functionality, usability, and relevance overall making it a higher caliber program.