Criterion A: Planning

Scenario:

For my computer science Internal Assessment, my client is a Senior Director at a software company. The software company that he works at regularly holds employee training sessions to boost skills and help employees get familiar with new technologies, tools and software. To test the understanding of the employees on the subject after the training, the company conducts tests for its employees. The current system is such that the tests are made in a word processor, printed out and then handed to each employee. After finishing the tests, they need to be manually graded and updated into a system. This process is tedious, time-consuming and inefficient. Therefore, to solve this problem, I proposed a solution where the system could be digitised.

Since this product is being developed specifically for my client, I asked him to be my advisor for this project, to which he agreed. This will allow me work closely with my client and actively involve him in the development process, which will benefit the success of my project and help me in achieving my client's goals.

Rationale:

The solution that I have settled on for my computer science Internal Assessment is an Employee training Assessment Manager. While consulting with my client[1], he pointed out certain problems that he faced with the current system in place, such as the time-consuming process of setting and grading tests, the unintuitive task of reviewing the aggregated employee performance data from the database, and the waste of productive hours in conducting the test. Most of the problems that this system faced were due to bottlenecks caused by its dependence on human processes, which I felt could be eliminated by digitising the system. The digitisation of this system would allow most of the system to be automated, including the publishing and grading of tests, which would help reduce costs and save time. This digital system would also improve the ability to monitor employee performance in the tests by presenting the data in a readable and intuitive manner, which would be a step above the current implementation. Another benefit of the digitisation of the system would be the environmental savings in moving to a digital system that does not require the use of paper.

[1] Refer to Appendix C/Interview Transcript in the HTML cover sheet for client interview transcript

Success Criteria:

1. The new system should be stable, and not crash during operation.
    - The system should throw suitable error messages for duplicate entries, failed action items and success.
2. There should be a fairly intuitive way to create and publish tests to employees under a supervisor (easy to understand UI)
3. Login function should differentiate between employees and supervisor
4. The supervisor should be able to make accounts for new employees and remove old employee accounts under him
5. The users should have passwords on their accounts to help maintain a level of security.
6. The supervisor should be able to add his own questions and answers to the question database
7. The supervisor should be able to create multiple test banks to differentiate question categories.
8. The program should be lightweight, not memory or CPU intensive
9. The software should be compatible with the company's systems.

WORD COUNT: 370