Criterion A: Planning

Scenario (148 words)

For my IA, I plan on building a digital morning mark-off system for a house in our school. The implementation of the system will be within Hay house, a house that has to complete mark-off of all of the students attending school in their house every day.

The client, as a result, will be the entirety of Hay house, represented by the figurehead, Ms Khan; the Head of Hay House. I believe that Ms Khan is the most effective way of talking to the clientele, as she will act as a centralised figure for the house and be able to inform myself of the needs and problems of the system. The planned advisor for the project will be Mr Pham, who is involved in Hay house and as a background in IT, making him able to understand and possibly help me out throughout the development of the solution.

Proposed Solution (301 words)

The reason for implementing a new, digital version of mark-off would be to make morning mark-off in houses more efficient than it currently is. Currently, physical mark-off sheets are used, with one person voluntarily collecting their house appropriate mark-off board in the morning and marking people off. This process usually occurs at around 8:10 am and is contingent on the timely arrival of the assistant head of school to give the mark-off boards out. After 8:45 am (the beginning of classes), this sheet gets handed to the assistant head of school, to be collated with all the other houses' mark-off sheets. Then, the assistant head of school looks through all 10 of the mark-off boards, and from that can follow up with those who are absent or not present.

With a digital solution, the above system could be made much more efficient and fit the needs of the clientele better. The proposed system would replace the current physical sheets with kiosk-esque interactive touchscreens, which would allow students to type their name in and mark-off. Alternatively, as each student owns a personal student identification card with RFID, there will be the option to mark-off using an RFID scanner, allowing students to more quickly mark-off in comparison to searching a name on the touchscreen or any other physical alternative. The system would turn on and begin to accept names for mark-off at 7:30 am and would stay accepting names until 9:00 am, ensuring that students that arrive both early and slightly late can mark-off. At 9:00 am, the mark-off list for the house will be sent to the assistant head of school, separated into students that are in attendance and those that are absent; to be dealt with by the assistant head. The system will then shut down.

Success Criteria (148 words)

The items that will determine the success of the project are as listed:

- Does the system provide a quicker way of marking off in comparison to the older system?

- Does the system provide appropriate alternative mark-off methods (if, for example, someone had lost their ID card)?
- Does the system more efficiently display the mark-off results to the assistant head of house than the current system?
- Does the system take as little maintenance as possible and can be largely debugged by those without experience in IT?
- Is the system's user interface enjoyable to use and quick to use?
- Does the system allow for expandability (possibly amongst other houses if they were to implement a similar system)?
- Does the system have no edge cases or other faults in programming and development?
- Does the system have appropriate databasing capabilities and computing power in order to manage more intense marking off periods?