Computer Science Senior Project – ASFC Data Management System

Goal: To design and program a data management system for ASFC. Having the key features of direct data entry, time stamp on each data set, off site data archives, and statistical analysis of data (option). Expansion of project would include selectable menu for multiple data types, constant display of active data, and easy post production inventory alterations.

Ideally the program would have 2 separate subsets. The first system would be designed to track building usage. It would need to be set up so that a student worker would enter their name and ~16 separate numbers into labeled fields. The data set and worker name would then be time stamped and archived, probable on the LETU server. It would be preferred if the system could do a weekly summary of average building usage per day/time. If possible, it would be nice if there was a way for admin to make alterations to the archived data.

The second system would track the check out and return of games and controllers for the game room, and HDMI cords and adaptors for the collaboration rooms. The system would need a way to enter who (full name & ID#) is checking it out, entry of what they are checking out (HDMI, PS4, Wii, Xbox, Physical Game, controllers), then based on that appropriate choices of what and how many. Once checkout is confirmed it should be time stamped and remain displayed until it is checked back in. Upon which it would be time stamped again than archived. This system would need an admin menu to adjust what games, controllers, cords, adaptors, etc. are available for checkout. It would also need a method of checking in loans as, forgot to enter the check in, a null time or something similar. It would be preferred if the system could do a weekly summary of the average usage of the various available inventory. If possible, it would be nice if there was a way for admin to make alterations to the archived data.

The current system is a plethora of various Excel spread sheets that work, but often require TLC as many different users with a large variety of Excel experience access them. Since excel doesn’t have an archive function it also leaves large amounts of data vulnerable to corruption or alteration. Time stamping the data entry would ensure that data is collected at the appropriate times, if nothing else it ensures the data correlates with when it was entered. Archiving the data ensures that device failure does not result in data loss.

For questions or concerns please contact:

Emanuel Villiger

emanuelvilliger@letu.edu

830-549-0306