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Project Team 6:

Milestone Report #3

Lesson Learned

At the begin of the semester, a term project was announced in which students had the

opportunity to create an application. Regardless of knowing the guidelines of the assignment, we

had a vague idea what creating a program with a team would entail. The first step was to

assemble a team of students that would assist in the development of our software. Secondly, with

any successful team, a project manager would need to be elected to aid with major decisions;

with our team, officially intact the decision of determining what type of unique program would

fulfill the requirements of the project.

After considering the positives and negatives of various ideas, we settled on a program

that would manage warehouse inventory, which is essential to any small to large scale business.

The program allowed for the characterization of items by the following traits: name, color,

model, revision (year), price, SKU, and serial number. With these implemented, the program gives the user the commands of:

- adding/removing items

- searching for existing items (by different traits)

- printing inventory

- updating an item's value in the system.

The project assignment gave us the insight that comes with the on-hand experience of having to develop a program in a team. Unlike many assignments that give specific directions regarding on how and what should be done, this assignment compelled the group to use creativity to develop a program that incorporates what has been taught throughout the semester. We quickly learned the importance of delegating work among team members, as a project of this scale cannot be completed effectively alone (similar to the industry). Since work was divided it was also critical to organize the implementation of distinct parts of the program, some functions and methods had to be written before others.

Effective time management was a key element that we learned to complete each task promptly. Being engineering students, we must use our time wisely; weekly meetings were set in place to discuss various ideas and changes to comply with the milestone deadlines that were expected of us. For some teammates, this was a first using online collaborative repository sites such as GitHub and GoogleDocs to share and edit code.

Communication is vital when working on a team programming project. It is crucial to know which tasks each group member is responsible for to stay organized and complete all elements of the project. Since a program must be smooth flowing, all work completed by team

members must be in sync. After completing this project, our group realized that the best way to make sure that our individual works correspond with that of the team is to constantly keep our team members updated with how and what we've completed. These updates will allow other team members to adjust their work to correspond with the main source code.

Future Capabilities/Work

Due to the time restraints and busy schedule, the team had many ideas that did not make it to the first release of our inventory software. As programmers, we realize that this is how the real world works. We had to make executive decisions on the main features that would provide the most functionality for the user and implement those on release one. There are certainly other additions that we would add to future expansions with either a patch or a revision a list of possible features/functions is:

- *Graphical user interface*: GUI would make the program more intuitive for a user as opposed to having to run the program through the terminal.

- *Importing/exporting file data*: Would allow exporting and importing of files for larger warehouse data.

- *Alerts for low inventory (restocking):* If this is paired with sales tracking, we could implement a function that alerts the user every time an individual item is low on stock and prompts the user to reorder.

- *Storage Management:* This functionality could help estimate the physical storage left in the warehouse as product come and go.

- *Sales Tracking*: Ability to compare shelf-life of some items versus others by analyzing how quickly they are sold

- ***Logistics***: Shipping, Receiving Capabilities, and In-Store Barcode Generator.

- ***Network Capabilities:*** This feature would allow multiple stores to communicate and very another locations stock, thus making it easier for the business and patrons.

In short, the program taught us a lot about the work that goes into developing a program and is something that we can all apply to our future careers as programmers. With any company developing a program there will be an elected program head and a lot of planning that goes into how the code will be structured before the first line is even written - this assignment certainly taught us that.