**Baseline project plan**

**Introduction**

Team Awesome plans to develop a Microsoft Access based database application to track inventory for The Max. The database application will handle liquor inventory and will be able to return accurate numbers needed for liquor orders.

**System Descriptions**

*Statements of Alternatives*

**Not Doing the Project**

|  |  |
| --- | --- |
| Pros | Cons |
| No learning curve for organization | Outdated system of completing inventory |
| No costs | Only one member of the organization can complete inventory with current system |

The organization has been running using the current inventory system. Along with any new process or system in a company, there is always a learning curve and people that are not motivated to change their current process. The company currently solely relies on the manager to perform inventory on a daily basis, to keep liquor and beer levels at the appropriate number to allow the business to run. If something were to happen to the manager, no one else, would be able to perform inventory in the organization. The current system is done on pen and paper with no checks for user errors or back-ups of the current levels of inventory.

By not implementing a new inventory system, there will be no start-up costs for the organization. Goals of any business are to cut costs and increase profits. Not changing the system will cut start-up costs, in addition to users not having to spend time or resources on learning the new system. The system has been working for the Max for years and will continue to be the process to perform inventory until the new system is implemented.

Currently, the manager is the only one who performs inventory and if something happened to him, nobody else in the organization would know how to do inventory. In addition, the system is not based in a computer system, therefore, there is no back-up in the case of the inventory spreadsheet being misplaced or destroyed. The system is outdated, not utilizing the benefits technology brings to expedite or enhance the current process of inventory.

**Microsoft Excel**

|  |  |
| --- | --- |
| Pros | Cons |
| User friendly interface | Inefficient process to complete an inventory system |
| Inexpensive start-up/maintenance | The system would not provide error messages with input errors |

As Microsoft Excel as an alternative method, the system would strictly be reserved to a single localized personal computer. The inventory would solely be kept in a spreadsheet. It would be possible to print out graphs or reports using Excel. With the system using Excel as its primary data store, there would not be any sense of procedure to how the inventory is done.

The positives about using Excel as the primary data store for an inventory system would be the user-friendly nature of the program in addition to the start-up costs being minimal compared to maintaining a localized server or setting up a database. The only start-up cost would be purchasing the Microsoft Excel program. Excel can be user-friendly, due to the fact that, it is a spreadsheet laid out in digital form.

A negative that comes along with using Excel is that it is an inefficient process to complete inventory. The system would be localized unless it was shared as a Google Document. However, new accounts would be required to share the document on Google Documents. The system would also not give out error messages if the numbers for updated inventory are entered incorrectly. For example, if a user enters in 100 instead of 10, the system should output an error message or reject the user input.

**Microsoft Access**

|  |  |
| --- | --- |
| Pros | Cons |
| User friendly Interface | Not highly scalable |
| Easy to maintain | Higher start-up costs |

Utilizing Microsoft Access as the primary system in an inventory system would reduce user input errors, create a user-friendly interface, and be a localized database. The system would have a tough time scaling, if the data store would include over 10,000 items. However, the inventory system requested by the organization would not be required to hold that many items, thus, Microsoft Access would fulfill the requested system. The cost to reduce user input errors and create a user-friendly interface would be more expensive than using a spreadsheet program, however, the benefits of using Microsoft Access plan to outweigh the costs of using a spreadsheet program.

The main reasoning behind the utilization of Microsoft Access is the ease of use for end users and the low-cost nature of maintaining the database. The idea is that using this database program will be reduce the risks and costs of user input errors. Microsoft Access also has the ability to create useful reports for the end user. Access will also implement a more efficient process to do inventory at the Max. Currently, only one member of the organization can perform inventory, with the implementation of this system, the idea is that in case something happens to that single user, another member of the organization will be able to complete inventory.

The negative aspects of using Microsoft Access is that the program is more expensive than the current system of performing inventory and that it is not highly scalable. As stated earlier, the size of the inventory system that will be implemented, will not have a scaling issue. With the hopes of allowing the business to keep functioning, in the case of something happing to the user who performs inventory, and reducing user-input errors, the start-up cost is reasonable to mitigate the costs to the organization if one of the two given examples occurred.

**SQL Server**

|  |  |
| --- | --- |
| Pros | Cons |
| Highly scalable | Not user friendly interface for non-technical members of the organization |
| Localized server with only certain people having access | Higher start-up/maintenance costs |

In the SQL server alternative, the inventory system would utilize a database on a localized SQL server. The system would be similar to the Microsoft Access alternative because it would have the same functionality. The main difference would be that SQL servers can scale much easier and the administrator can implement their own security assurances on this server. The interface for the end-user would not be as friendly, and in the current situation, the organization requested an easy to use system.

Utilizing an SQL server to implement an inventory system would allow for a localized and highly scalable database. In addition, the administrator can implement any security measures and allow access to individuals who have clearance to access the database. The administrator could set up times to back-up the data to another physical device whenever deemed necessary. If the inventory system needed to get bigger as time goes on, there would be no scaling issue.

The main negative about utilizing an SQL server would be the user interface. The organization requested an easy to use system to mitigate the learning curve for members of the organization. The members of the organization are not technically inclined and do not consider that trait when looking to hire individuals. The cost to keep an on-site server including maintenance and utilities, would be much higher than other alternatives. In addition, the organization is not interested in storing data in a highly secured database.

**Feasibility Analysis**

*Economic*

* Project Overall Net Present Value: $8,947.65
* Net Present Value of all Benefits: $67,760.31
* Net Present Value of all Costs: $35,598.27
* Return on Investment: $90.35%
* Anticipated Breakeven: 2.0044 years
* One time start-up cost: $10,200
* Full EFA: See Attached MAX.XLSX

Technical

Collyn

* Planning and creating a database in Access
* Modifying fields in Access
* Creating Reports in Access
* SQL Generation in Access

Tom

* Planning and creating a database in Access
* Modifying fields in Access
* Creating Reports in Access
* SQL Generation in Access

Paul

* Planning and creating a database in Access
* Modifying fields in Access
* Creating Reports in Access
* SQL Generation in Access

Justin

* Planning and creating a database in Access
* Modifying fields in Access
* Creating Reports in Access
* SQL Generation in Access

*Operational*

The implementation of the new inventory system will allow for many members of the organization to perform inventory. The system will mitigate input errors by displaying input errors. The system will allow for better storage of the data.

The day to day business activities will allow for other members of the organization to perform inventory before the manager arrives for the day. It should expedite the ordering process by printing user-friendly reports regarding inventory levels for certain distributors. The day to day business activities will also be affected by the ability to view inventory levels. The organization would like to include printing the reports and updating inventory on a daily basis.

*Legal or Contractual*

To implement a new inventory system utilizing Microsoft Access will require a contract to purchase the program necessary program to implement the database.

*Political*

There are no political requirements to implement a new inventory system.

*Schedule*

* Phase 1: Outreach: September, 2017 – May, 2018
  + Development Team Meetings: September, 2017 – May, 2018
  + Organizational Meeting: September, 2017 – May, 2018
* Phase 2: Project Requirements: September, 2017 – May, 2018
  + User Requirements: September, 2017 – October, 2017
  + System Requirements: September, 2017 – October, 2017
* Phase 3: Project Design: September, 2017 – May, 2018
  + Database Design: December, 2018 – May, 2018
  + Reports Design: January, 2018 – May, 2018
  + Prototype of System: March, 2018 – May, 2018
* Phase 4: Documentation: September, 2017 – May, 2018
  + Milestone 1: August, 2017 – September, 2017
  + Milestone 2: September, 2017 – October, 2017
  + Milestone 3: October, 2017 – November, 2017
  + Milestone 4: November, 2017 – December, 2017

**Management Issues**

*Team Configuration*

* Team Members: Collyn Sansoni, Thomas Jorgensen, Justin Hendricks, Paul Naumann
* External Contacts: Derik Nelson

*Communications Plan*

The Max inventory development team will meet every week, in person, on Thursdays at 7:00 PM. The purpose of these weekly meetings is to discuss the status of the current Milestone and possible revisions that are necessary. The team will also be utilizing slack.com and group text messages to relay informal information regarding meeting times and any updates with change of plans regarding due dates and feedback from the instructor and team members. The team will meet with the manager of The Max once a month to present documents for approval and to touch base on how the development of the system is going.

*Project Standards and Procedures*

Milestone 1

* Client Documents
* Systems Service Request
* Project Charter
* Control Documents

Milestone 2

* Client Documents
* Project Scope Statement
* Statement of Work
* Economic Feasibility Analysis
* Gantt Chart
* Work Breakdown Structure
* Work Breakdown Structure Dictionary
* Enterprise Diagrams
* Control Documents

Milestone 3

* Client Documents
* Tracking Gantt Chart
* Baseline Project Plan
* Risk Management Plan
* Control Documents

Milestone 4

* Client Documents
* Context Documents
* IEDF
* Data Flow Diagram
* Activity Diagram
* Sequence Diagram
* Control Documents

**Security Issues**

*Information Security Analysis*

Assets

* Inventory Database
* Team Members
* Organization Members

Vulnerabilities

* Deployment Failures
* Data Leaks
* Weak Audits
* Unsecured Storage

Threats

* SQL Injections
* Insider Threats – malicious or negligent

Losses

* Team and Organization time and effort
* Organization Start-up Costs
* Team Liaison reputation with Organization

Safeguards

* Continued meetings with organization members
* Continued updates on development of the new system

*Information Security Policies*

Overview

The Team Awesome project will use a reasonable code-of-conduct. The project will be non-discriminatory, transparent, and ethical to all parties involved. Any communication or changes to the project will be available to any party involved in the project. The data in the inventory system will be backed up on a weekly basis by the manager. Only users with approval from the organization’s manager will have access to the data in the system. Data will be updated daily, during the time allotted by the organization. The organizational manager will also update the inventory after a delivery by a distributor. Unless otherwise approved by the manager, no other updates will be done in the database.

Scope

All team and organization members involved with the product

Policy

Timing: Effective once agreed with organization members

Review: The code of conduct will be reviewed every 4 months

Definitions

A code of conduct is a set of rules and procedures showing the way all parties involved in the project should adhere to. The code will also outline specific responsibilities for all parties involved in the project.

Enforcement

Recorded cases of breaches of the code, as stated above, will be reviewed by the team members and organizational manager and the team members, in collaboration with the manager, will reach out to the individual responsible for the case. We will not charge individuals who makes a mistake, unless it is malicious.

Instead, the individual will be informed and educated on how they can perform better in the future.