

Closure Document

IT 420 Milestone Two



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**Postmortem Summary**

When we first brought the idea of creating an Asset Management System Database for GasBuddy, we noticed the benefits that would come from it. Like being able to have a clear account of its assets and how it could affect the company’s bottom line. It was a rocky start with trying to figure out how we were going to achieve this with such a tight budget and time restraint. At first, we thought excel with a running database account, but the lack of security features made us go with Microsoft Access. I feel like this is a good jump off point as we can see, track, and create a maintenance plan to help GasBuddy mitigate risk and stay on projected budget. After reading the following we will be able to show that the production of the Asset Management System Database is and was a good idea.

**Methodology**

GasBuddy has a vision to create an app that will help consumers find the gas at the best bang for their bucks. GasBuddy has done a great job at streamlining and updating their app throughout the years but as a result they have had to expand their locations to keep up with demands. Because of this GasBuddy as a result does not have the ability to account for all their assets be it physical, digital, or intellectual. During the design phase, we created an Asset Management System Database. We used the Agile and Gantt Chart to map out the tasks start and end dates. It detailed the phases and when we would be moving through them, while considering of breaks due to the holidays. We used the Agile method along with a Gantt Chart because of the flexibility they both offered. Seeing that the creation of the Asset Management System Database, which will be referred to as AMSD for the continuation of this document, would allow for GasBuddy to see where the lifecycle of devices and manage to keep them updated with proper software patches. To implement this design into a fully realized product we used the Pilot methodology.

The Pilot methodology allowed for the deployment of the fully developed AMSD. The steps within this method included communicating with shareholders, stakeholders, the Board of CEOs, and the IT department. The method includes monitoring the application’s usage, monitor the technical environment, and gathering users’ feedback. With the users’ feedback criteria was developed to ensure that feedback was concise, aimed towards the performance, query response time and accurate reporting.

**Method Evaluation**

With the implementation Pilot method and the design stage Agile and Gantt Chart method, the database that was built within the Microsoft Excel to get an idea of what we wanted the database to look like, was then moved and uploaded into Microsoft Access. This was done on purpose because the two application allows for communication between the two and an easy transformation. Microsoft Access provided a better security feature as for as locking the database from unauthorized users, as well as allowing the classes and attributes to be protected from unwanted changes. The Gantt Chart was a great tool for keeping everyone on schedule and mapping out where we were at within the project phase.

**Risk Mitigation**

Once the AMSD has been properly tested and placed into production, the database will have to be checked for redundancies as new assets are uploaded into the system and old ones are properly uninstalled. As new assets are entered, making sure that the correct class and attributes are associated with the new item is key to prevent cross referencing the wrong asset. The next risk is determining the proper size of storage needed. Determining that the storage would only be used for the AMSD a 1.9TB works because there are only two locations and the assets gathered would not take up a lot of space but also lend itself to scalability. My best advice for the team taking over would be to make sure that security features are configured to fit company polices and within the network infrastructure to prevent a backdoor for attackers to gain access to the database.

**Project Status**

At this point the AMSD is ready for deployment. As this is a database it will never fully be finished as new assets will continuously be added and removed to keep accurate records.

**Objectives**

We created and implemented an IT AMSD that allows for a better picture of GasBuddy’s physical and digital assets. The goals are to be able to patch up software within the mobile application while continually upgrading the delivery system at GasBuddy’s home base. With the creation of the AMSD GasBuddy can now see what assets are on hand and how much they costed and what phase of their lifecycle they are in. By providing GasBuddy with this system, GasBuddy can control their finances closely by being able to monitor hardware and software and maintain them when needed. This allows for proper configuration of software which in terms means a better security stance. Microsoft Access can print out a report for the cost of an asset, but it is not fully were we wanted it. To fully develop this feature, we need to create another database class or migrate to another platform all together.

**Issues**

As stated in the previous section the financial reporting feature isn’t fully accurate. What is preventing this is the inability to add a value on the intellectual assets and consider the depreciation value of devices over their lifespan. By not being able to view this GasBuddy will not be able to make an insightful financial decision on rather an asset needs to be replace and if the value of it is worth the upgrade or not. I would suggest that the next go around that we incorporate someone that is familiar with writing code or use another platform for asset management as a third party so that GasBuddy would then be able to make in-depth decision based on the assets’ value and how they affect the bottom-line.

**Alternative/Recommendations**

If given the chance to repeat this project I would account for someone with coding experience. I would make sure that the financial aspects were completed. As for the other features I would change nothing. The AMSD works as proposed. It allows GasBuddy to see their assets within a collective space and see where they are located, the lifespan and the value for physical devices minus the depreciated values. I would extend the design phase by 1 month and move testing up two weeks to make sure all deliverables are fully operational and ready for implementation phase. Outside of these factors I feel that the project was a success.

**Communication**

**Future Enhancement**

With the creation of the AMSD GasBuddy could not only use it to keep track of assets but to create a program that will help incorporate a system that monitor these assets and ensure that they are properly configured, patched, and replaced when the software or applications becomes obsolete. Meaning instead of guessing if the router is about to fail, the new program would let the IT department know that a particular device normally fails around 6 years due to overheating, or inability to get new updates. This would save money and create product awareness.

**Implementation Support**

As this project comes to the phase of change management, the IT Department will be tasked with the learning the new system. Manuscripts will be created, and a training section will be held with my team so that GasBuddy IT Team can successfully keep the database running and in the event of an emergency, be able to safely back up the system and recover any lost data. This process will take two weeks of side-by-side training with the head of the IT department and their leadership team. They will then perform training to their teams.

**Maintenance Plan**

While training GasBuddy’s IT team, we will also be training on how to maintain the database covering the following:

1. Keep all data in one central program. This help streamline searching for data.
2. Provide insight into GasBuddy’s data using clear descriptive names, tabs, and type.
3. Keeping the AMSD complete by adding new information directly. Assets will be added into the database instead of moving it from file to file.
4. Keep the AMSD up to date as new assets are added and old assets removed
5. Integrity checks
6. Log file Maintenance to see every transaction within the AMSD.
7. Backup and recovery in the event of loss of power, attackers, and database failure.
8. Checking and updating security protocol and configurations.

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**1-1: Deliverables**

* Fully operation database with all GasBuddy’s physical and digital assets.
* Creation and Implementation of an IT Asset Management System Database to implement and control the following:
  + Software Patching to ensure new data strings are applied and configured properly
  + Optimize asset use when it comes to resources, risk mitigation, and real time data on GasBuddy’s assets
  + Tracking of assets through continuous monitoring
  + Maintenance of assets depending on the asset’s lifecycle
  + Managing software licenses and how many are needed and in use.
* Informed Decision making by using data reports created by IT AMSD
  + Data report includes:
    - Inventory report
    - Maintenance information
    - Audit report
    - Employee productivity
    - Workflow

**2-1: Gantt Chart**



**2-2: Project Plan**

**Work Breakdown Structure**

In the above Gantt chart, you can see that the start date is October 3, 2022. Phase one will take place of the span of 3 months with a result of a working asset management system. During the first month both of GasBuddy's locations will begin the process of collecting their hardware asset. Within this phase all desktops, printers, modem, servers, hard drives, and any other type of IT hardware will be logged into an excel spreadsheet and sent to the chief information officer. The next phase is implementing the data into the Microsoft Access database, but it cannot begin until we have successfully collected all the assets from phase one. Without that data and accurate documentation, we run the risk of missing or miss prioritizing the assets, which could cause inaccuracy within the SEC. This tool was decided upon because of its ease of use, ability to print cohesive reports and the price of usage for licenses. Within phase two we will then enter all the data collected into an organized and easy to navigate form. Access will allow us to update new assets and keep track of changes amongst all assets. This phase of the project will commence in November and last until December of 2022. Phase three of this phase will begin in December of 2022 and within this phase we will begin to test and make adjustment to any direct correlation between keys within the grouping and its related outputs.

**2-3: Timeline**

The proposed timeline from gathering to completion is six months with a holiday break scheduled after the implementation phase. The Asset Management System is scheduled to commence on October 3, 2022, with the gathering of inventory of the two sites of GasBuddy. This will continue to first week of November. In the second week of November, we will begin inputting the collected data from the inventory taken. This will begin a three week build up. There will be a four-day weekend due to Thanksgiving and we will pick back up on the 28 OF November. Coming back from the first scheduled holiday, Will begin creating the tracking for the assets, configure the devices and network, user information and licensing. This is planned to begin on November 30 and last until Christmas eve. The project will not be completed by then due to the Christmas and New Year’s Eve holidays. In the beginning of the new year work will pick back up on January 2,2023. If any changes should occur, a request will be submitted to the project charter and the Board of Directors.

**2-4: Dependencies.**

To keep the project moving forward, this project is broken down into phases. Phase two of inputting data cannot start until all assets are inventoried between the two sites. If any asset is missed, we will have to go back and log it and input it into the new asset management system. These stages will be done in sprints to quickly move through phases, keep open communications and to be able to review phases before moving to the next. I will feel like a waterfall approach, but it has a more flexible style aligning with the Agile method. If there are any delays in the phases it will push back the start of the next phase running the risk of going over budget and missing the baseline of deliverables.

**2-5: Tools**

The tools needed:

**Microsoft Access**: The database software that will store, analysis, and report information and references. This tool will print reports to help maintain devices, make financial decisions, and show asset usage. The cost is low, and it is a transparent application which on the back end saves on cost.

**Gantt Chart**: Will give visual representation for the progress of the project. It will show work breakdown and timeline. It will help to ensure workflow. This will be combined with the Kanban Chart to allow for open communication and to try to prevent bottlenecking of work. Again, this is a cost saver because it can be done within Excel.

**Microsoft Excel**: Even though it can be used as a basic database it will not be the main database stored within the server. Excel will help collect and temporarily serve as an inventory placeholder. This application will be used by site team members to input the assets that are at their respective locations. It allows us to export the information into Access and start to build the attributes and classes that will eventually become the working AMS. The cost is low because the license for this is all under Microsoft 365.

**Tablets**: They offer portability and ability to be mobile so team members can move around to easily catalog assets. It will be linked to the main offices by remote and WIFI access to upload on the shared excel.

**3-1: System Design Document**

**3-1a: Introduction**

GasBuddy has expanded locations and to ensure that all assets are properly accounted for an asset management system will be created. The creation of the asset management system database (AMSD) will allow GasBuddy to monitor the use of its assets, track who has access to documents, track and maintain the lifecycle of their devices, and the ability to create an accurate reporting of assets to the SEC which create transparency to shareholders, equity holder and the board of directors. To clarify the lifecycle of devices, this means the life span of the device starting from its installation, registration and authentication, configuration, monitoring and device software maintenance. The AMSD will help prioritize its assets, thus giving GasBuddy a clear sight of where to increase or decrease funding to protect that asset. By being able to see a program can be created within the AMSD to monitor and maintenance that asset. In terms this allows for a tighter control over the output of expenses. The new AMSD will also allow GasBuddy to keep all devices up to date with current patchwork and lessen the chances of an attack. The creation of the AMSD also allows GasBuddy to consider the usage of current licenses and the ability to configure devices within the company’s infrastructure. The AMSD allows for a visual confirmation giving updates on the current setting of a device and giving the IT team the ability to configure the device to optimize security protocols. With the creation and implantation of the AMSD, GasBuddy will be able to lower its risks, control its financial output, monitor all users, asset and configurations on devices and ensure that all assets that is in the network be properly patched.

**4-1: Requirement**

The AMSD shall provide feedback in the form of reports which will include device lifecycle, asset status, and location. The AMSD will provide a schedule for patchwork, configuration and when to consider software updates. AMSD will provide a financial report showing figures that pertains value of hardware, cost of applications licenses, cost of software, total cost to maintain the AMSD, and cost of devices. Finally, the AMSD will give GasBuddy control of its bottom-line and security of all assets be it physical, digitally, or intellectually in the cloud.

**5-1: Resources**

* Access to GasBuddy’s servers to upload AMSD.
* Full honest reporting from both location IT management team about assets to create a complete snapshot of assets.
* Microsoft Access to build the database
* Microsoft Excel to create the need spreadsheet to collect data from both locations
* Desktops that is hard wired into GasBuddy’s infrastructure to securely upload directly to servers.
* Mobile devices with remote access to GasBuddy network to upload the assets as they are documented and for mobility to be present with asset.
* Gantt Chart to monitor the progression of the project.
* By in from the board of directors and shareholders because if they have buy in the project will have a continuous flow due to the boards’ feeling of ownership with the AMSD.

Diagram

Description automatically generated**6-1**

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