Milestone 1 System Planning: Project Charter

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ITAM Project Plan

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IFT 540: Info Systems Development

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Company History

IniTech Solutions, Inc. The CIO's office worked with the finance, procurement, and IT departments on a project last fiscal year to examine and improve our IT Asset Management program and processes. Stages of the IT Hardware Asset Management lifecycle include specifying and acquiring. The project team will need to plan, analyze, design, and implement a solution for the Deploy, Service, and Retire stages of the IT Asset Management lifecycle over the next quarter. Several issues were identified, the first of which was the use of excel spreadsheets throughout the organization to track asset tags, serial numbers, and other identifiers, there was data duplication, a lack of validation, asset stages were not tracked because they were stored in multiple excel sheets, and data reporting was inadequate.

Problem Statement

According to a recent audit finding, the existing method comprises tracking assets in distributed excel spreadsheets controlled by several entities. The spreadsheets lack the standardization and consistency required to develop executive and cost prediction dashboards. As the data is manually maintained, data validation, and data entering errors are common.

Technology Solution Statement

In order to rectify the problem mentioned in the problem statement. The asset management system should be automated which clears out all the lacking deficiencies in the Asset Management and also ensures data to be delivered and stored throughout the ITAM procedure.

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High-Level Process Diagram
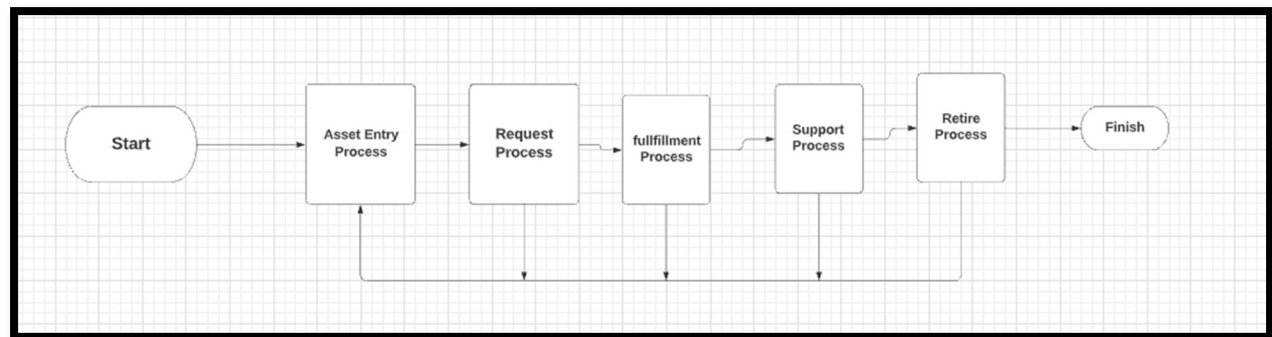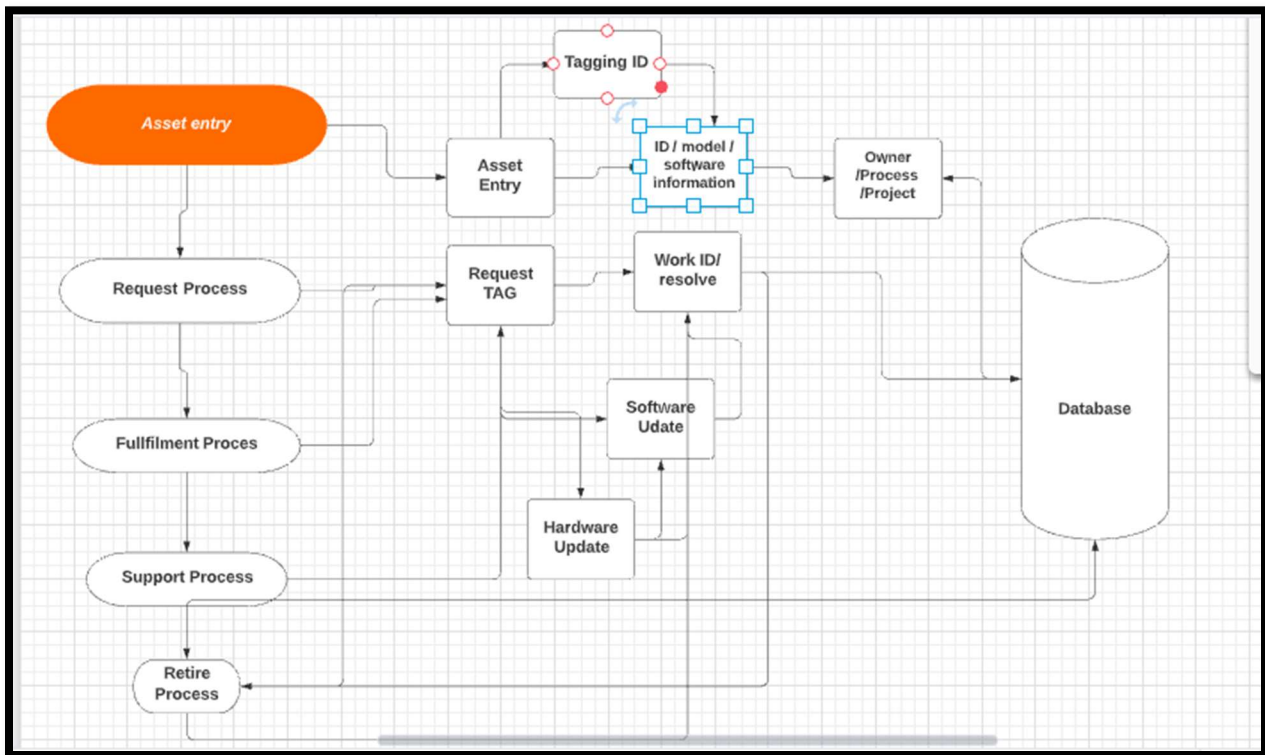
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Project Benefits

- The fully functional asset management system allows us to better tracking of our inventory and assets. With a fully automated system team members can update the details of assets in the system with in no time, and we track them schedule the maintenance related tasks.

- Modern ITAM systems can track the change management. All purchases, repairs and out of date hardware and software track can be kept.

- We can plan the hardware and software retirement based on asset availability and project needs.

- We can plan ahead for asset demand and resources utilization.

- Asset management solutions that keep infrastructure in good shape and focus on lowering life cycle costs can save operating and maintenance costs while also lowering long-term project costs. The utility receives the most assets for its money when using a life cycle strategy.

- Due to rise of the remote working culture we can, better manage license distribution through the automated asset manager.

- There's also the benefit of report generating, which may be utilized to discover assets that don't satisfy certain criteria.

- Asset duplication has been discovered as a major flaw in the existing system. Because all spreadsheets are not updated in a coordinated way, assets are observed to be recorded several times with variable statuses across multiple spreadsheets. (www.newea.org)

- Based on the asset inventory and project needs we order the inventory upfront. We can enable a smarter and more transparent purchasing process; we may save money on hardware purchases. (www.newea.org)

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- The projects mission, aims, and objectives will be more successful in the long run if Asset management is aligned with strategic policies and direction. (www.newea.org)

- We can Improve Regulatory Compliance

- Unexpected failures are less frequent as a result of more systematic day-to-day attention to system assets and their status, resulting in fewer emergency repairs, costly litigation, and customer relations issues. (www.newea.org)

- Assessing the risk implications of asset failure allows the utility to focus resources on essential objectives while lowering total risk. (www.newea.org)

- With automated asset management we can get Long Term System Integrity. By developing and executing Asset management in projects, six major areas will be enhanced.

- Better asset tracking is the first significant area that will be addressed. Inventory management will help to consolidate asset information.

- Equipment downtime will be considerably reduced as this data becomes more accessible, since substitute assets may be swiftly sourced while the original asset is serviced.

- The efficiency of operations is the second significant area that will be enhanced.

- The third crucial area that this initiative will address is cost reductions. Assets must be manually updated because there is no method to automate updates and security fixes. This can be quite expensive because teams will have to set aside time to do such tasks.

- Standardization is the fourth critical area that will be enhanced. The standardization of asset information might help to speed up the report generating process. This can save time for executives by allowing them to instantly see the status of assets without having to ask a team to manually build a report from several excel spreadsheets from various teams.

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- This project will improve financial reporting, which is the fifth critical area. The time it takes to compile financial reporting is cut in half with an automated asset management approach.

- This project will increase risk management, which is the sixth critical area. Compliance checks may be done automatically with a properly configured asset tracking technology to verify that assets do not represent a hazard to the company or its customers.

Stakeholders

End-User

As the name suggests it refers to the people actually using the product. The end user is an important stakeholder as these are the people who need to use this technology to solve the problems faced by the company at present.

Technological Factors. The technological segment of this new product will be the major factor for the end users in accepting this technology. Automation became the new trend in every industry and this technology will fit right into this trend. As the technology is evolving, people began to hate doing jobs that can be easily solved using technology. No one stops the car and ask for directions anymore. The same is the case with asset management. Asset management generally is very complex process involving many people at different stages and if some mistakes were to happen somewhere in that process solving that would take a lot of time and resources. Automation is the solution to make this complex process simple. This new technology would be a boon to the users as it would be user friendly and ease the process of managing data, the two problems every user generally faces. This technology would be a major upgrade to the current existing system with no major possible changes required for years to come.

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Social Factors. The technological solution mainly focuses on automation. Use of automation minimizes the need for human involvement. This may lead to decrease in jobs in that particular domain. But at the same time, it provides many new opportunities in fields of information technology, AI and machine learning. The role of employees changes from people who does jobs with routine tasks to people that develop technologies which will revolutionize and bring us into a new era.

Deskside Support

Deskside support is the place people look for in case of technical emergencies. They act as user support for setup, maintenance and troubleshooting technical problems.

Technological Factor. When Deskside Support receives tickets, they need to be able to identify if they are related to the same issue or different issue. what kind of systems are constantly affecting and if they affect a certain computer model or different model. they can plan the resolving of issues based on priority. They will be able to view the makes and models of assets with a correctly established IT Asset management system, allowing them to handle issues across models and apply updates as needed. They also need to be able to detect if problems with assets utilized by certain users are recurring. If the same kind of user or system has the same kind of issues across the organization, they can plan on alternative for those users or systems.

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Public relation and Compliance Management

  The public relations office works on campaigns and media relations strategies. which will better suit our products. Compliance Officers are in charge of making sure that all business processes and procedures are legal.

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Legal Factor. Compliance officers are responsible for ensuring that corporate activities conform with internal standards, in addition to the law. Companies risk breaking applicable rules and regulations without a Compliance Officer who actively monitors and drives compliance management, exposing themselves to significant reputational harm and fines. As the technology being developed is new there would be no issues for acquiring patent and thus making the job a little easier for the compliance officer. Also, as the tools used to develop this technology will be properly licensed there would be no infringement of intellectual property.

Social Factor. The Public Relations lets people and customers know of our products and the advantages of using them. They organize PR events and meets to help understand our products which will help us grow the company's sales and revenue. They also take into account of how the new product affects the technological world in different domains and as a whole. The new technology mainly relies on automation. The public relations have to make people in the industry know how this new technology will further enhance their productivity, reduces costs and saves a lot of resources. They can emphasize that all the resources saved can be put into Research and development of new products. They can assure the people that new employment opportunities it brings far outweigh the unemployment the product may cause due to automation. As this product is bound revolutionize the technological world it will be a lot easier and helpful for the public relations department to increase the reputation and create a state of eminence for the company.

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Project Plan

ID		Task Mode	Task Name	% Work Complete	Duration	Start	Finish	Predecesso	Resource Names
1			ITAM Project Plan	0%	1 day	Wed 9/1/21	Wed 9/1/21		
2			Initiating	0%	1 day	Thu 9/2/21	Thu 9/2/21	1	
3			Finalize project team	0%	5 days	Fri 9/3/21	Thu 9/9/21	2	Project Manager
4			develop project charter	0%	5 days	Fri 9/10/21	Thu 9/16/21	3	Project Manager
5			Systems Planning	0%	1 day	Fri 9/17/21	Fri 9/17/21	4	
6			Develop scope statement	0%	8 days	Mon 9/20/21	Wed 9/29/21	5	Project Manager
7			develop and refine other plans	0%	20 days	Thu 9/30/21	Wed 10/27/21	6	Project Manager
8			Systems Analysis	0%	1 day	Thu 10/28/21	Thu 10/28/21	7	
9			Concept	0%	1 day	Fri 10/29/21	Fri 10/29/21	8	
10			Evaluate current systems	0%	5 days	Mon 11/1/21	Fri 11/5/21	9	Network Engineer,Syste
11			Define requirements	0%	15 days	Mon 11/8/21	Fri 11/26/21	10	System Design Engineer
12			Define user requirements	0%	12 days	Mon 11/29/21	Tue 12/14/21	11	System Design Engineer
13			Define content requirements	0%	16 days	Wed 12/15/21	Wed 1/5/22	12	Senior Developer
14			Define system requirements	0%	18 days	Thu 1/6/22	Mon 1/31/22	13	System Design Engineer
15			Define server owner requirements	0%	16 days	Tue 2/1/22	Wed 2/23/22	14	Network Engineer
16			Define specific functionality	0%	21 days	Thu 2/24/22	Thu 3/24/22	15	System Analyst
17			Define risks and risk management approach	0%	13 days	Fri 3/25/22	Tue 4/12/22	16	Project Manager
18			Develop project plan	0%	19 days	Wed 4/13/22	Mon 5/9/22	17	Project Manager
19			Brief web development team	0%	1 day	Tue 5/10/22	Tue 5/10/22	18	Project Manager
20			Systems Design	0%	1 day	Wed 5/11/22	Wed 5/11/22	19	
21			Web site design	0%	1 day	Thu 5/12/22	Thu 5/12/22	20	
22			Define registration for recreational programs	0%	15 days	Fri 5/13/22	Fri 6/3/22	21	Senior Developer
23			Design registration for classes and programs	0%	19 days	Mon 6/6/22	Fri 7/1/22	22	System Analyst
24			Design tracking system	0%	13 days	Tue 7/5/22	Thu 7/21/22	23	System Design Engineer
25			Design incentive system	0%	15 days	Fri 7/22/22	Thu 8/11/22	24	System Design Engineer
26			Systems Implementation	0%	1 day	Fri 8/12/22	Fri 8/12/22	25	
27			Web Site Development	0%	1 day	Mon 8/15/22	Mon 8/15/22	26	

ID		Task Mode	Task Name	% Work Complete	Duration	Start	Finish	Predecesso	Resource Names
28			Develop registration for recreational programs	0%	22 days	Tue 8/16/22	Thu 9/15/22	27	Senior Developer
29			Develop registration for classes and programs	0%	22 days	Fri 9/16/22	Tue 10/18/22	28	System Analyst
30			Develop tracking system	0%	16 days	Wed 10/19/22	Wed 11/9/22	29	Senior Developer
31			Develop incentive system	0%	13 days	Thu 11/10/22	Wed 11/30/22	30	System Analyst
32			Conduct verification testing	0%	18 days	Thu 12/1/22	Tue 12/27/22	31	Testing Team
33			Conduct validation testing	0%	14 days	Wed 12/28/22	Wed 1/18/23	32	Testing Team
34			Conduct pilot testing	0%	4 days	Thu 1/19/23	Tue 1/24/23	33	Testing Team
35			Roll Out	0%	1 day	Wed 1/25/23	Wed 1/25/23	34	
36			Move site to production server	0%	3 days	Thu 1/26/23	Mon 1/30/23	35	System Test Engineer
37			Determine roll out schedule	0%	3 days	Tue 1/31/23	Thu 2/2/23	36	Project Manager
38			Communicate roll out plan to users	0%	1 day	Fri 2/3/23	Fri 2/3/23	37	Project Manager
39			Conduct user training	0%	5 days	Mon 2/6/23	Fri 2/10/23	38	Software Test Engineer,S
40			Deploy system	0%	1 day	Mon 2/13/23	Mon 2/13/23	39	System Test Engineer
41			Support	0%	1 day	Tue 2/14/23	Tue 2/14/23	40	
42			Determine what support resources are needed	0%	3 days	Wed 2/15/23	Fri 2/17/23	41	Support Team Manager
43			Make appropriate staffing changes	0%	3 days	Tue 2/21/23	Thu 2/23/23	42	Support Team Manager
44			Determine method that users will attain support	0%	3 days	Fri 2/24/23	Tue 2/28/23	43	Support Team Manager
45			Determine support process	0%	6 days	Wed 3/1/23	Wed 3/8/23	44	Support Team Manager
46			Launch support	0%	1 day	Thu 3/9/23	Thu 3/9/23	45	Support Team Manager
47			Systems Support	0%	1 day	Fri 3/10/23	Fri 3/10/23	46	
48			Hold formal customer review	0%	1 day	Mon 3/13/23	Mon 3/13/23	47	Project Manager
49			Closing	0%	1 day	Mon 3/13/23	Mon 3/13/23	47	
50			Prepare final report and presentation	0%	5 days	Tue 3/14/23	Mon 3/20/23	49	Project Manager
51			Deliver final report presentation	0%	1 day	Tue 3/21/23	Tue 3/21/23	50	Project Manager

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Technology Tools

To deal with problems including data duplication, asset tracking, and a lack of visibility across the company. Our goal is to create a web application that makes it easier for the business to keep track of its assets, eliminates data duplication, and reports the data to a dashboard for everyone's benefit. We want to use the following tools to create this application.

Front-End development tool

Chrome DevTools. We chose Chrome DevTools over AngularJS because it allows us to edit web pages directly from the Google Chrome browser and swiftly identify errors, allowing us to design better websites. Chrome DevTools make it simple to work in real-time with HTML, CSS, and JavaScript code in the browser. Other notable features include the 'Timeline,' which allows you to easily identify run-time performance issues, the 'Device Mode,' which tests the responsiveness of the website, the 'Sources Panel,' which allows you to debug JavaScript using breakpoints, the 'Network Panel,' which displays network activity, and many more ("10 Best Tools for Front-End Web Development – GeeksforGeeks", 2021).

Back-End development tool

Python. Python was chosen for our backend development because of its compatibility with advanced technologies such as Machine Learning, the Internet of Things (IoT), Data Science, and so on. Python's advanced programming language is widely used and perfectly suited for backend web development, which we require because we will be using machine learning to track and report on the data. When it comes to web development, Python's vast standard library is a huge benefit because it makes developers' jobs a lot easier and faster. Python also has extra and distinct

advantages, such as increased code readability. Web developers choose it because of its ease of integration with other languages, support for GUI programming, portability, and a slew of other benefits ("Top 7 Programming Languages for Backend Web Development – GeeksforGeeks", 2021).

Database and Cache

      MongoDB. MongoDB is an open-source NoSQL database management program compatible with python programming, which is used as the backend development tool in our application. NoSQL is gaining popularity as a substitute in place of more traditional relational databases. Large sets of scattered data benefit greatly from NoSQL databases. Document-oriented information can be stored or retrieved using the MongoDB database management system, making our application more robust ("What is MongoDB? A definition from WhatIs.com", 2020).

Web Server

      Amazon Web Services. We chose AWS servers because AWS, a complete cloud computing platform, allows businesses to power their infrastructure and become more agile. Furthermore, Amazon Web Providers (AWS) provides a considerably wider functionality than most traditional web hosting services as a collection of cloud-based services. Amazon AWS EC2 provides various resources for each instance, including CPU, memory, storage, and networking ("Web Hosting - Amazon Web Services (AWS)", N.D).

Machine Learning Libraries

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Seaborn, Pandas, PySpark. To create visually appealing and educational statistical visuals, we'd like to make use of the Seaborn library. Seaborn is a Matplotlib addon with additional functionality. Pandas can eliminate data duplication, and PySpark keeps track of the data (S Singh, 2019).

Dashboard

Tableau dashboards are similar to worksheets in that they may be accessed via tabs at the bottom of a workbook and used to compare many sets of data at the same time. Because the data in sheets and dashboards are linked, any changes to a sheet affect the dashboards that include it ("Dashboards -Tableau", N.D).

Current Solutions

ManageEngine AssetExplorer is a web-based IT Asset Management (ITAM) system that allows you to monitor and manage your network's assets from planning to disposal. AssetExplorer can be used to ensure that all of your network's assets have been detected. AssetExplorer may track purchase orders and contracts and manage software and hardware assets ("Asset Explorer", N.D).

PROS

1. Cloud-based and browser-based.
2. VM-based asset management.
3. Monitors both networked and non-networked assets.
4. Relationship Mapping
5. A familiar Windows-style user interface.

CONS

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1. No mobile application.

2. Limited remote-control tools work only for Mac and Windows-based machines.

3. One module of a bigger system may not be enough for smaller offices.

While ServiceNow and Ivanti IT Asset Management Suite offer a broader IT helpdesk solution, ManageEngine AssetExplorer stands out due to its ease of use and reasonable price ("ManageEngine AssetExplorer Review | PCMag", N.D).

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