Systems Analysis: Requirements

ITAM System Requirement Analysis

Vivek Satvik Yeddula (1224033382)

Viswateja Bapireddy (1224129166)

Mourya Kanthamani (1224094027)

Anvesh Reddy Bodanapu (1223695980)

Arizona State University

IFT 540: Info Systems Development

Dr. Tatiana Walsh

03/06/2022

Table of Contents

Background

Problem Statement

The current strategy involves recording assets in distributed excel spreadsheets that are managed by multiple entities. This approach of storing data lacks the consistency and regularity required to produce executive-level dashboards that are also cost-effective. Because the data is input manually, there is a high risk of errors in data entry, validation, and reporting. There is no established system for maintaining the asset's status and tracking the quantity of assets available in the stockroom. The current security system is ineffective at limiting access to the stockroom and role-based access for data interaction.

Technology Solution

To effectively tackle the shortcomings of manually maintaining the database, the asset management system can be completely automated which reduces human errors such as data entry and validation in the asset management system, this in-turn helps in data delivery and storage with the help of ITAM procedure. This technology employs effective ways for securing the data contained in the repository, as well as managing the information flow and tracking the stockroom's assets.

Fact Finding Techniques

System analysts use fact-finding strategies to go through data and learn about the current system. Questionnaires, document reviews, observation, sampling, surveys, and research are all examples of fact-finding approaches. Considering the nature of our project and the specifications that the system must meet and to ensure that this job is completed to the client's satisfaction. We will utilize the following fact-finding strategies to construct an efficient model to address the current system's barrier.

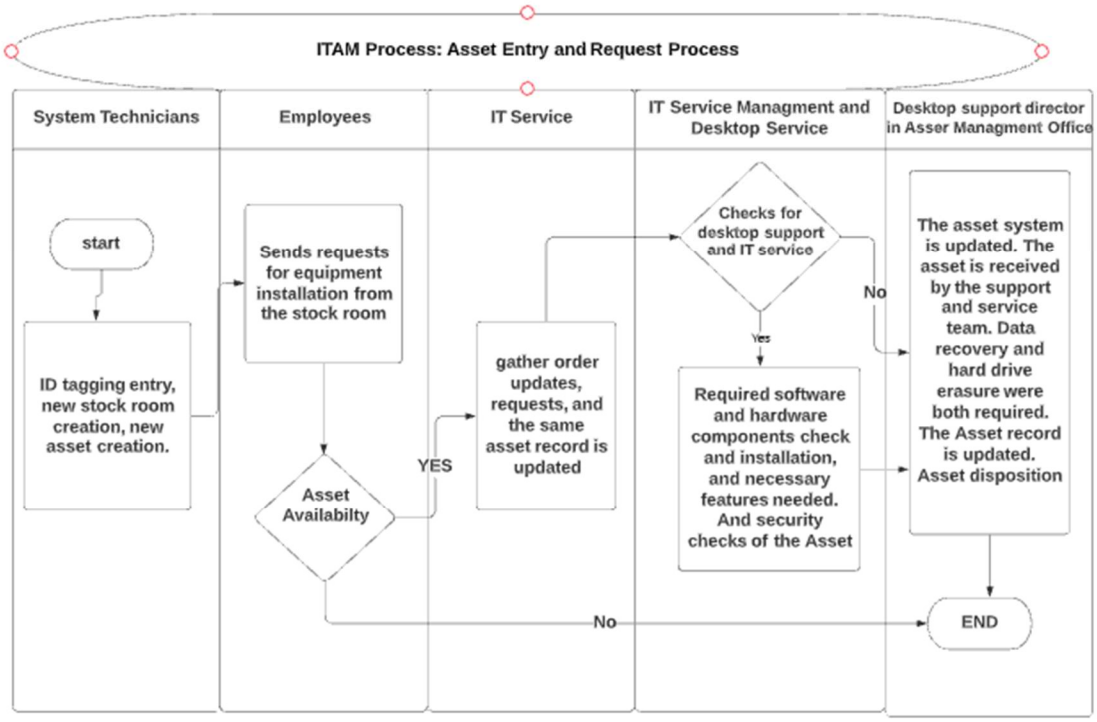
- Document Review: The primary fact-finding technique that will be employed is a review of existing documents, forms, and databases. It entails the analysis of current systems and documentation. This strategy uses various documentation types, including customer complaints, e-mails, reports, suggestion box notes, earlier used flowcharts, program documentation, diagrams, and training manuals. A system analyst or architect organizes these materials to form a well-structured outline.
- Questionnaires and Surveys: For this project, questionnaires and surveys are extremely helpful fact-finding strategies. The level of client satisfaction evaluates the success of a project. Surveys and questionnaires are used to obtain a preliminary understanding of the client's requirements. Questionnaires will be employed to gather complete data. Users will respond to queries posed by the system analyst, and the analyst will make sense of the data provided. The data generated by this technique will be immensely valuable in meeting the system objective's requirements and assisting the analyst in defining the application's architecture and framework. Likewise, to the questionnaire, the data gathered during these surveys will aid in refining and structuring the application's frame but with greater profundity and comprehension than the questionnaire (Tilley, 2019, p. 123).

Business Function 1: Serial Asset Tracking and Asset entry process.

Purpose

Serial Asset Tracking and Asset entry process. This function application creates a repository of serialized assets that each have a serial number and asset tag making them unique. When the Serialized Stock Items arrive, an Equipment/Asset record for each item will be produced, each entry is represented by a unique asset, allowing us to avoid data duplication. This model can track each asset individually with serial numbers. ID tagging and system entry, as well as the development of new stock rooms and assets, are all possible with the asset input procedure. The assets can be easily tracked down if necessary. Managing stock from acquiring it to disposing of it is made simple.

Process Map



The system will allow the employees to select the stockroom in which they wish to store the assets. Employees will be able to choose an asset through the system and system will allow for changes in asset condition (new, good, fair, and unusable), as well as status (like availability, on order, lost or stolen, retired). The request will be sent by the system, A technician's user interface for completing the request. A fulfillment process flow to track activity completion and requests for pickup will be communicated to customers. The system will provide updates on asset review and assignment and will maintain an up-to-date inventory of stock room locations (IT Asset Management: It's all about Process, n.d.).

Business Requirements

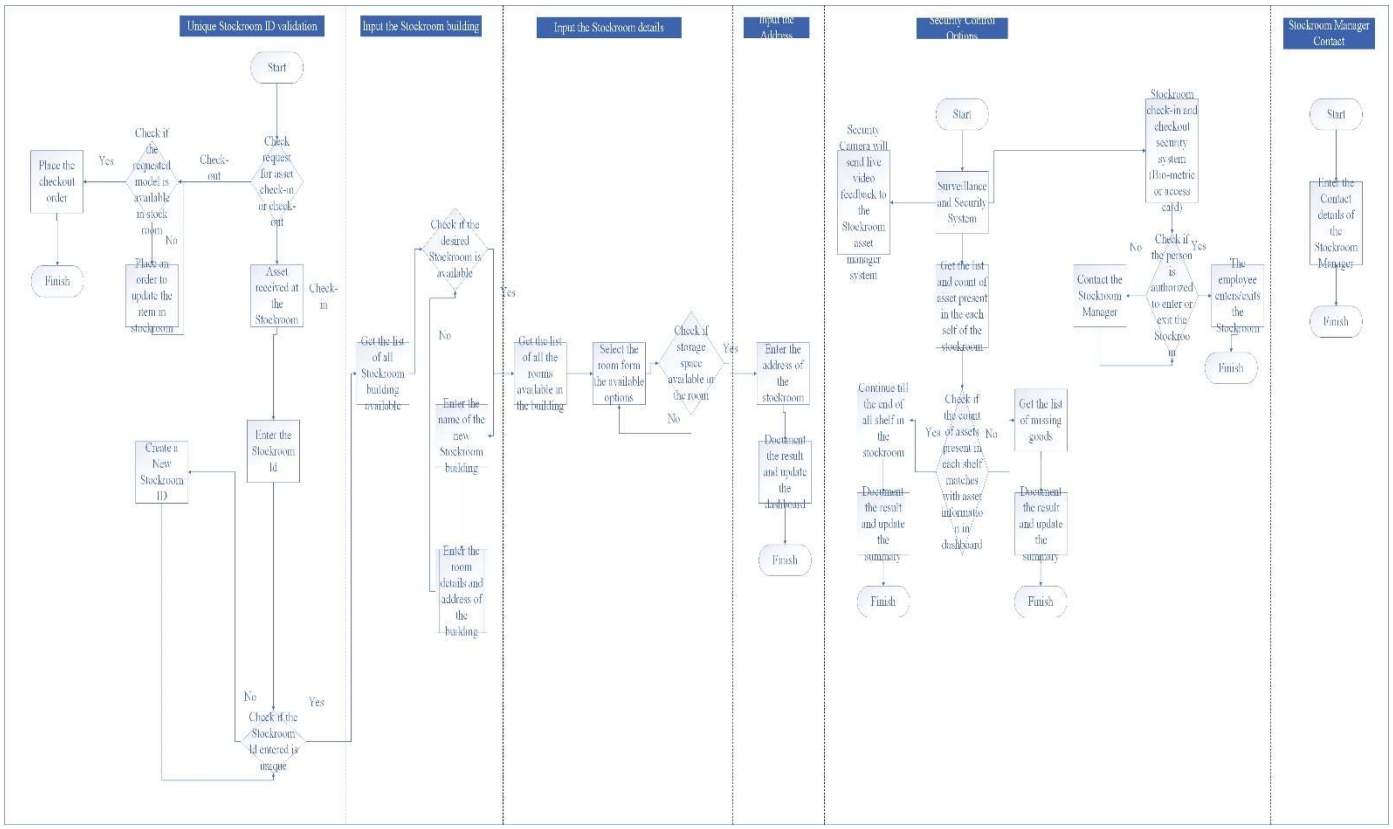
- Asset states to see the status of the order
- 'In use', 'available', 'on order', 'lost'&'stolen' are specified in the status of order
- Asset management life cycle is aligned to asset state.
- Unique identifiers to cancel out the duplication of data
- An interface to select model, stockroom if in stock, if it is assigned to in use.
- All the entries and modification of entries should be kept in a repository for all the data to reside.
- Equipment to affix serial number on the asset
- Hardware and software to read the serial number and asset tags is required
- All the users should be connected to a centralized server

Business Function 2: Stockroom Management and Request process.

Purpose

Stockroom Management and Request process. The Stockroom management feature in the application is used to keep track of all the IT assets in the inventory and keep track of any new assets that are added. This way, we can control, record, and optimize the flow of material and information, cut down on routines, and maximize the use of available space and the performance of tasks related to asset management. The system helps with all of the functions needed to manage hardware and software components so that assets and information flow together.

Process Map



The stockroom analyzes each request to determine whether it is for asset check-in or checkout. If the request is for asset check-in, the asset is assigned a unique stockroom ID and the information of the room where it is held, as well as the building's address, are logged. When an asset checkout request is received, the system checks to see if the asset is in the inventory; if it is, the system will successfully complete the processes necessary to give the asset to the user; if it is not, a request will be raised to update the stockroom with the item. Security and surveillance systems are employed to keep the stockroom secure and trace any changes made to the repository's contents. The Stockroom manager's contact information is entered so that he can be contacted for assistance.

Business Requirements

- The stockroom number must be set up in the standard Enterprise structure - made up of five characters, three of which are numbers, and two are used to describe the stockroom.
- A platform for the submission of requests should be built.
- One stockroom number can be used in different buildings, but one building can't have more than one stockroom number.
- The layout of the building and the list of all the rooms in the building must already be in the system. If the room is new, the employee or the stockroom manager should enter the details manually.
- A cloud space is required to keep the track of assets are on each shelf in the Stockroom and summary dashboard with the number of assets available.
- All the people who work in the stockroom will have to set up an account and choose a type of security control, whether physical or digital.

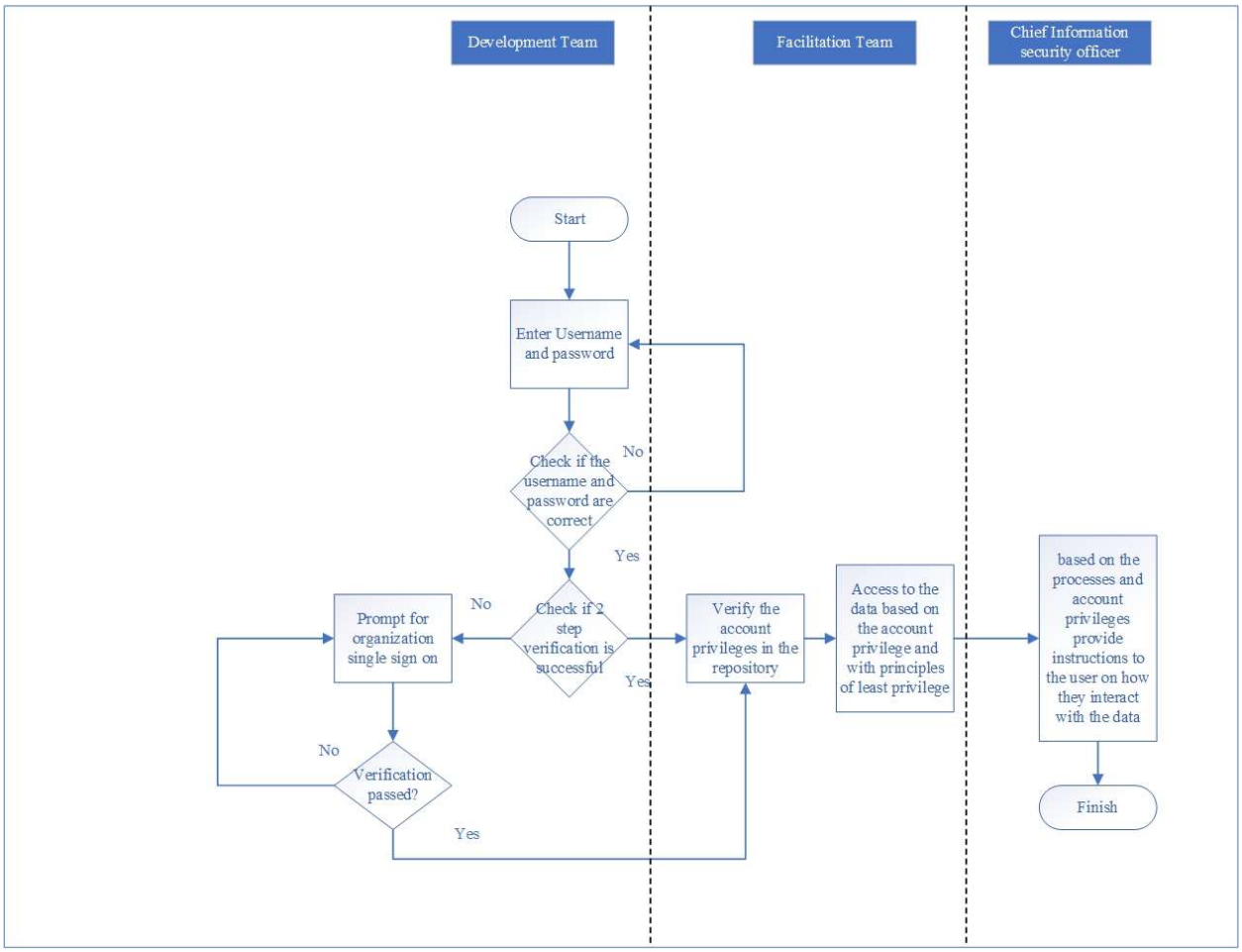
- The Stockroom manager will have admin access to a database that has information about each room and there should be one stockroom manager for every building and they will have to check the dashboard to see if there have been any changes to the data.

Business Function 3: System Security Function

Purpose

System Security Function. The purposes of this feature are to maintain confidentiality by protecting assets from unauthorized entities, to ensure that asset modifications are managed in an authorized manner, and to assist in restricting access to data by verifying the employee's role and how they will use the data, with an emphasis on the principle of least privilege.

Process Map



The organization's employee should input the username and password to access the repository's data; if the username and password are correct, the system will determine the account's privileges and policies and then provide the appropriate access level data depending on the account privileges. If the username and password are incorrect, the system will redirect the employee to the organization's single sign-on page and unable to access the data until the account is confirmed correctly (System Security, 2021, para. 8).

Business Requirements

- Not all system resources should be accessible to all authorized users.
- Employees must be granted access to the organization's single sign-on solution.
- The system should be developed so that it complies with all of the organization's security policies and requirements for enterprise security, as well as with applicable government regulations.
- The system's security should be capable of identifying malware, denial of service attacks, and preventing unauthorized processes from accessing system resources.
- The system should support a high user traffic.

References

System Security. (2021, July 29).

Tilley, S. (2019). *Systems analysis and design* (12th ed)., Boston, MA: Cengage Learning.

IT asset management: it's all about process. (n.d.). https://www.gartner.com/imagesrv/media-products/pdf/provance/provance_issue1.pdf