

Systems Analysis: Requirements

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Background

Problem Statement

Large corporations face IT asset management challenges due to non-standardized tracking using spreadsheets, disconnected inventory records, and inconsistent tracking criteria. Real-time visibility is lacking, and the inability to update inventories promptly hampers asset accountability and complicates vital IT processes. Standardizing asset tracking is essential for improving data management and asset disposition efficiency.

Technology Solution

To address IT asset management challenges in large corporations, we propose a Real-Time Inventory software solution. This software ensures timely data updates, maintains uniform data entry, and promotes resource management. It offers a user-friendly frontend for data uploads, real-time updates via backend and cloud services, and additional user-friendly features. Moreover, it automates report generation for data-driven decision-making. Establishing consensus on these key solution attributes is vital for stakeholder support.

Fact Finding Techniques

Interviews:

Interviews are a valuable method for gathering comprehensive data and insights directly from users, enabling the exploration of open-ended questions and follow-up inquiries to gain a deep understanding of their needs, preferences, and pain points. Interviews reveal details that may not be immediately apparent through other research methods. These interviews would focus on topics such as user experiences, expectations, and specific challenges within their current workflow, aiming to identify problems and areas for improvement. The interviewees should represent a diverse sample of end-users or stakeholders, including employees, customers, or relevant parties who interact with the system or process under study. During interviews, close attention would be paid to non-verbal cues such as body language and expressions, as these can offer additional context and insights into the interviewee's emotions and unspoken concerns. For broader perspectives, user surveys would be distributed to a wide user base, ensuring inclusivity and a comprehensive understanding of user opinions.

What questions should be asked:

1. Can you describe your typical workflow when using the system or following this process?
2. What are the most common challenges you face while using the system or process?
3. Can you provide examples of specific instances where the system or process caused difficulties?
4. Are there any features or functionalities that you find particularly beneficial in your work?
5. What changes or improvements would you like to see in the system or process to make it more effective for you?

Observations:

Observations involve the direct witnessing of user interactions with a system, process, or environment, offering valuable insights into real user behavior, uncovering pain points, inefficiencies, and user habits that interviews or surveys alone may not reveal. This method addresses inquiries related to how users perform tasks, their efficiency, and where they encounter challenges, providing a deep understanding of actual workflow and behavior. In selecting participants for interviews during observations, the choice depends on the specific research context; for instance, if you're observing software usage within a company, you'd interview employees using the software, and in a retail store scenario, customers actively shopping or interacting with staff. During observations, one would closely observe how users navigate software applications, interact with machinery, or perform tasks in a physical space, noting any deviations from expected behavior, difficulties, and workarounds. User surveys, on the other hand, should be distributed to individuals who receive current reports to assess completeness, timeliness, accuracy, and usefulness of information, inquiring about possible improvements and additional information preferences.

What questions should be asked:

1. Can you walk me through your typical process or workflow when you use [the system or process under observation]?
2. Are there specific tasks or actions you frequently perform with this system or process?
3. What are the key goals or objectives you aim to achieve while using this system or following this process?
4. Can you describe any specific issues, challenges, or bottlenecks you've encountered while using this system or following this process?
5. Are there any workarounds or deviations from the expected workflow that you use to overcome challenges?

Business Function 1: Serial Asset Tracker

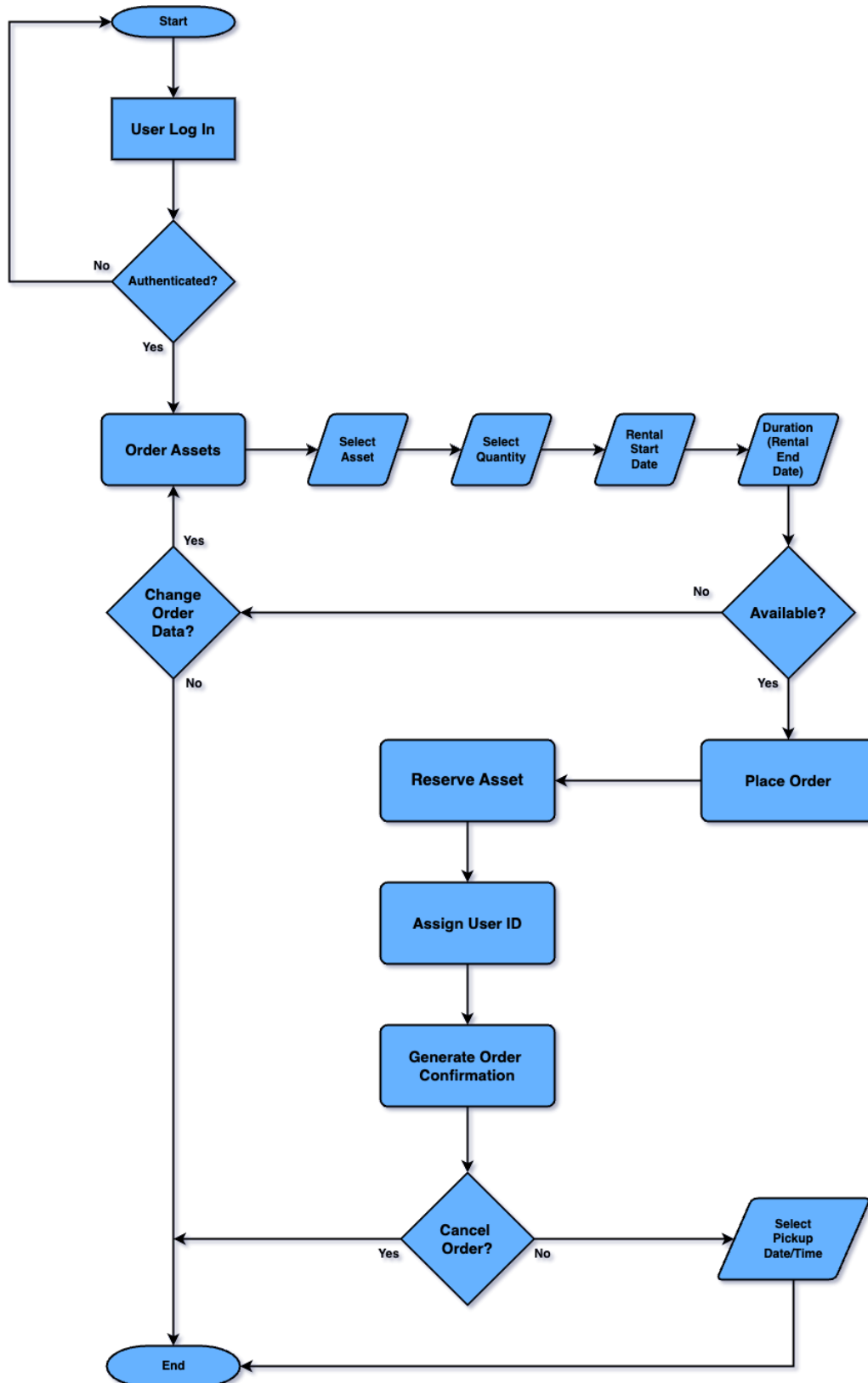
Purpose

The purpose of Serial Asset Tracker (SAT) is to provide a user-friendly, efficient and secure platform for end users to order or rent multiple assets. SAT aims to improve the user experience by allowing users to access the application from various devices to select the assets they want, calculate the amount by viewing their products, select the dates they want and prepare the rental. Additionally, SAT allows users to search for real estate, increase their knowledge about real estate, and ultimately streamline the real estate ordering process. This goal enables SAT to simplify and facilitate the electronic purchasing process, while also providing transparency and ease of use to users.

Business Requirements

- Collection of serialized assets, each associated with a unique model, serial number, and asset tag.
- Repository for the storage of asset data, ensuring that each entry represents one unique asset.
- Asset states, including "in use," "available," "on order," "lost," "stolen," or "retired," will be tracked to align with the asset management lifecycle.
- Unique identifier for each asset, preventing duplication of serial numbers and asset tags.
- Intuitive interface (web or mobile) allowing users to select a model of an asset and manage its state, including assigning assets to users when in use.

Process Map



Business Function 2: Stockroom

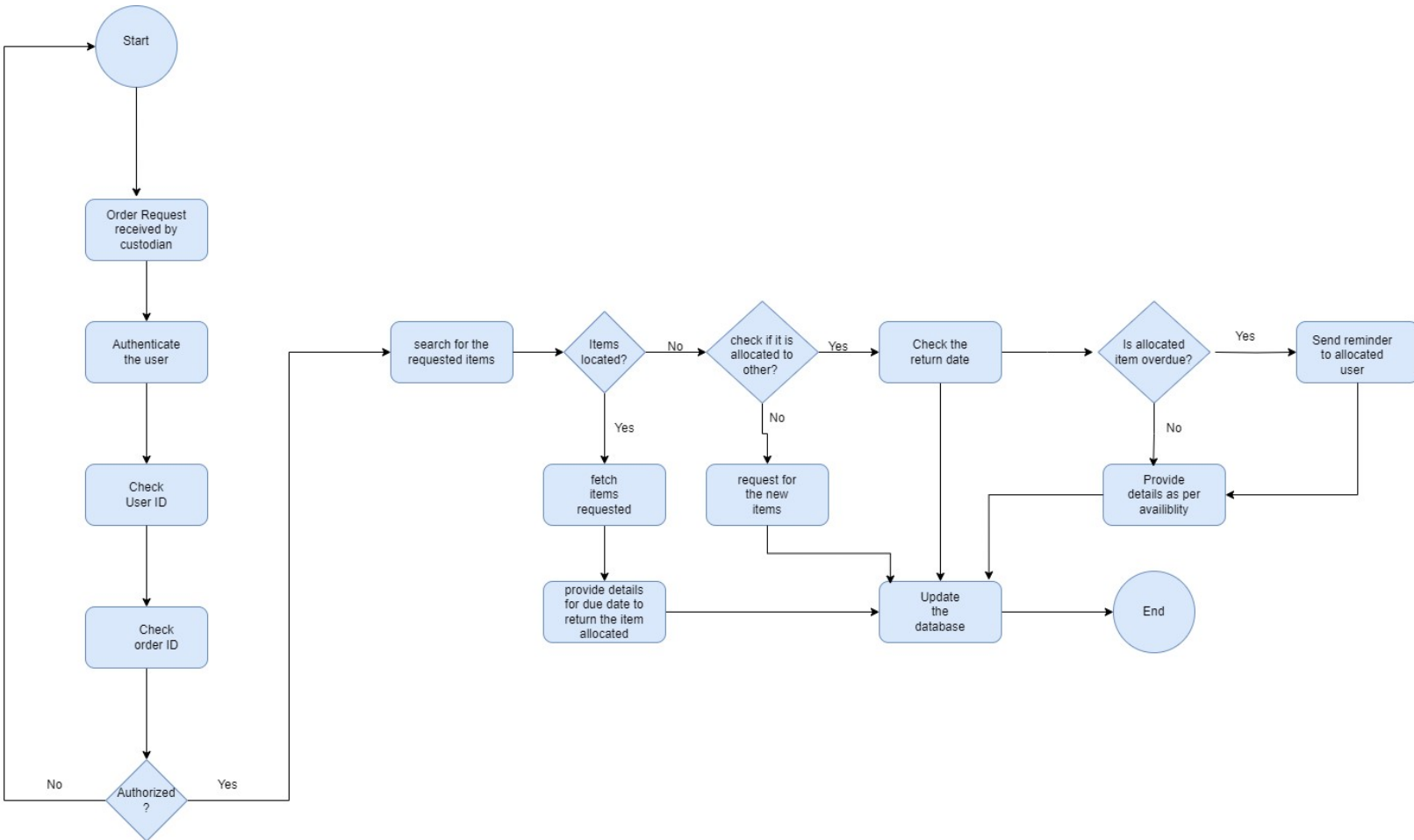
Purpose

There are three main objectives of the Stockroom (SR) scenario. It first improves asset management via an application, enabling the custodian to quickly handle user order requests, guarantee precise asset assignments, and keep track of inventory in real-time. Second, the application gives users real-time control over asset quantities, preventing the overallocation of idle assets and fostering effective stockroom organization. Last but not least, it promotes user accountability by enabling the custodian to assign assets to people using unique identities and sending reminders for overdue returns, improving asset management and minimizing misuse.

Business Requirements

- Unique identifier for each stockroom.
- Enable users to select a building for each stockroom.
- Input a room number and an address for each stockroom.
- Standardized list of security control options for the stock rooms.
- Field for the stockroom manager's contact information.

Process Map



References

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

Schwalbe, K. (2019). *Information Technology Project Management* (9th ed). Boston, MA:
Cengage Learning.