



**Knight Foundation
School of Computing
and Information Sciences**



**School of Computing &
Information Sciences**

Senior Design Project, 2023, Fall

Nextcloud App: Exploring Integration with Kaseya VSA

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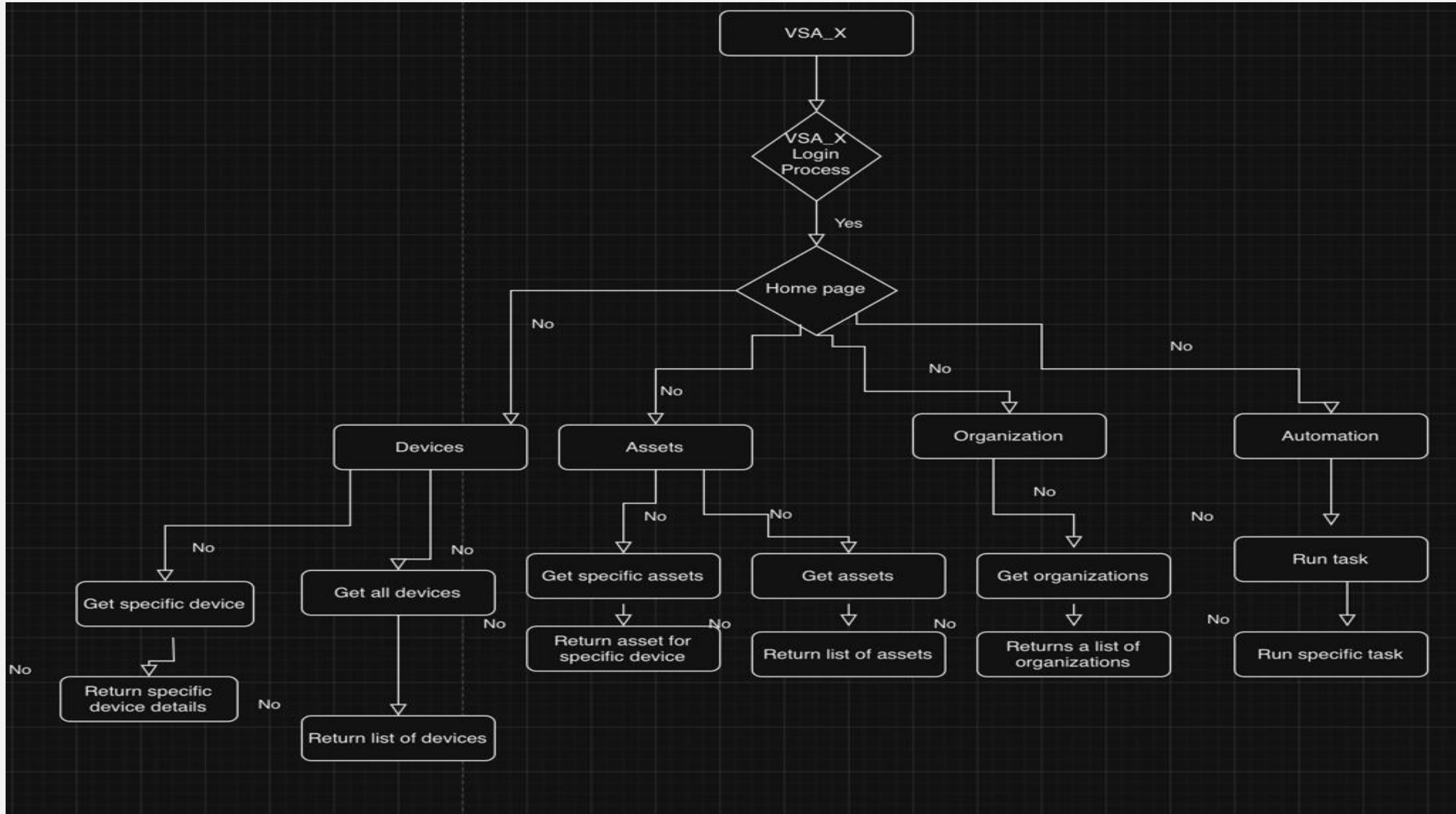


PROBLEM

The rollout of Kaseya's latest flagship model, VSA X, presented challenges in the design of its user interface, which left much room for improvement. Both the earlier VSA 9 and the current VSA X exhibited complex interfaces, creating hurdles for new users. In response to this, our customized Kaseya VSA application was developed to address this challenge directly. It provides IT professionals with a more straightforward and interactive approach to access vital user data.

By harnessing the capabilities of Kaseya's Rest API, our solution adeptly extracts data from both VSA 9 and VSA X models. This strategic integration enables us to introduce user-friendly features such as "Agents Information" and "Asset Information," streamlining the experience for IT professionals navigating intricate data landscapes.

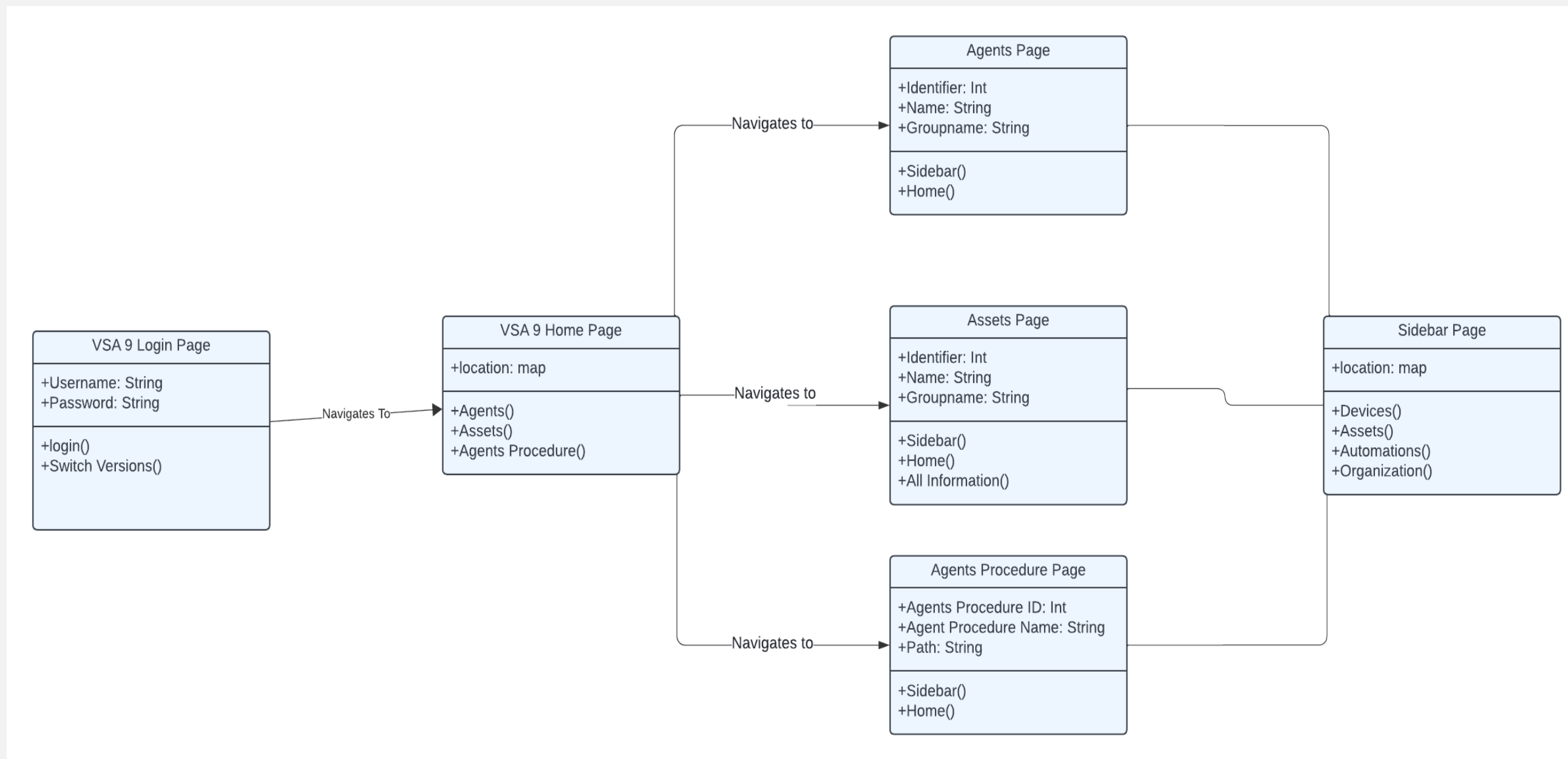
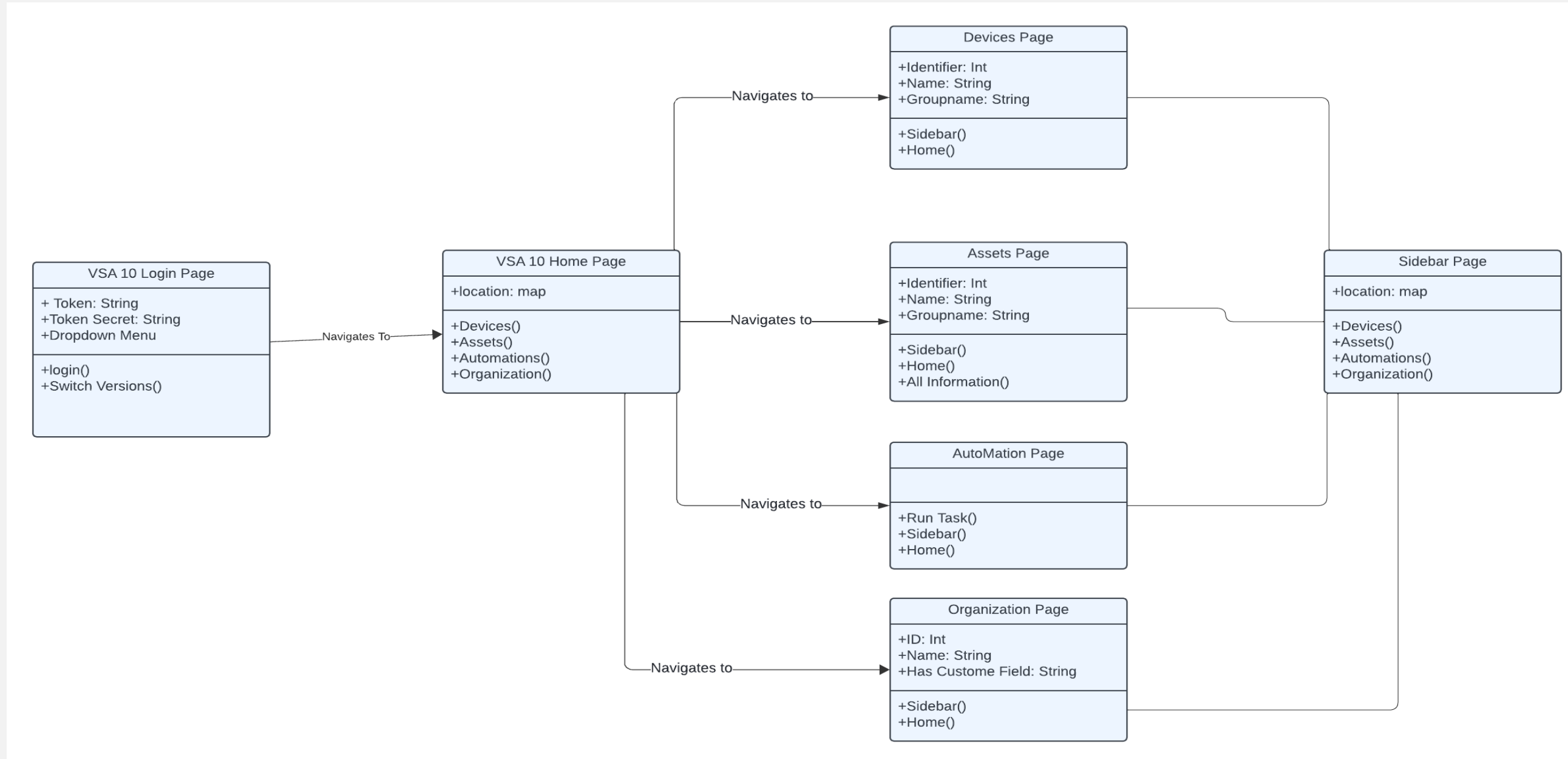
SYSTEM DESIGN



VERIFICATION

Testing was conducted on a local Nextcloud host enclosed within a Docker container to facilitate streamlined deployment and reproducibility. Additionally, a dedicated Nextcloud server was set up to host our Customized Kaseya VSA app, allowing users open access via the server's IP address. This approach expanded the scope of testing and encouraged user engagement. Real-time monitoring during the development process was achieved by executing the code on the local Nextcloud host. Collaborative development was facilitated through GitHub, leveraging Git functionality for seamless code version management, pull requests, and collective review and enhancement of project files. This thorough verification process not only ensured the reliability of our solution but also promoted effective collaboration and continuous improvement throughout the development lifecycle.

OBJECT DESIGN



REQUIREMENTS

This semester-long project revolved around the ambitious goal of creating a customized Nextcloud app seamlessly integrated with Kaseya's VSA. The journey began by harnessing Kaseya's Rest API for both VSA 9 and VSA X, with two primary objectives:

Authentication and Data Retrieval:

Utilize Kaseya's Rest API to authenticate and retrieve crucial user information from both VSA 9 and VSA X environments.

Intuitive User Interface (UI):

- Develop a user-friendly UI to simplify interactions for users.
- Transform this UI into a Nextcloud application, blending functionality with ease of use.

SUMMARY

This initial release of the Nextcloud App signifies the commencement of our venture into integrating with Kaseya VSA. Starting from scratch, we meticulously designed a user interface with a focus on simplicity and ease of interaction, seamlessly incorporating Kaseya's Rest API into the core of our application. As a participant in this project, I acquired invaluable insights into the intricacies of UI design, API integration, and collaborative development. This journey enabled me to deepen my comprehension of software architecture, real-time testing, and version control through platforms such as GitHub. In essence, this experience has been a significant milestone, providing me with practical skills and knowledge that transcend the boundaries of this particular project.

IMPLEMENTATION



INDIVIDUAL CONTRIBUTUION

I led the effort to integrate Kaseya's VSA X API into our application, a crucial achievement that required careful collaboration with the Kaseya Rest API documentation. Using JavaScript, I seamlessly connected the API to our application, incorporating my unique token ID, username, and API endpoint URL to ensure secure and authenticated data retrieval. The utilization of Vue.js played a pivotal role in my contribution as I designed an intuitive dashboard within the Nextcloud application. This dashboard functions as a user-friendly interface, elegantly presenting the integrated data from VSA X, guaranteeing accessibility and facilitating easy navigation for end-users.

ATTENTION: Subheadings shown above is a recommended structure for a research/scientific poster. Main elements of a poster are Introduction, Research and Conclusion. Researchers can customize the section headers based on their projects' needs. REMOVE THIS TEXT ONCE YOU START WORKING ON YOUR POSTER



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ACKNOWLEDGEMENT

The material presented in this poster is based upon the work supported by XXXXX (name of the project sponsor: federal, state or local government, or corporate partners, where applicable). We/I thank XXXX for his/her/their assistance and mentorship that I/we received throughout the senior design project.

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