



**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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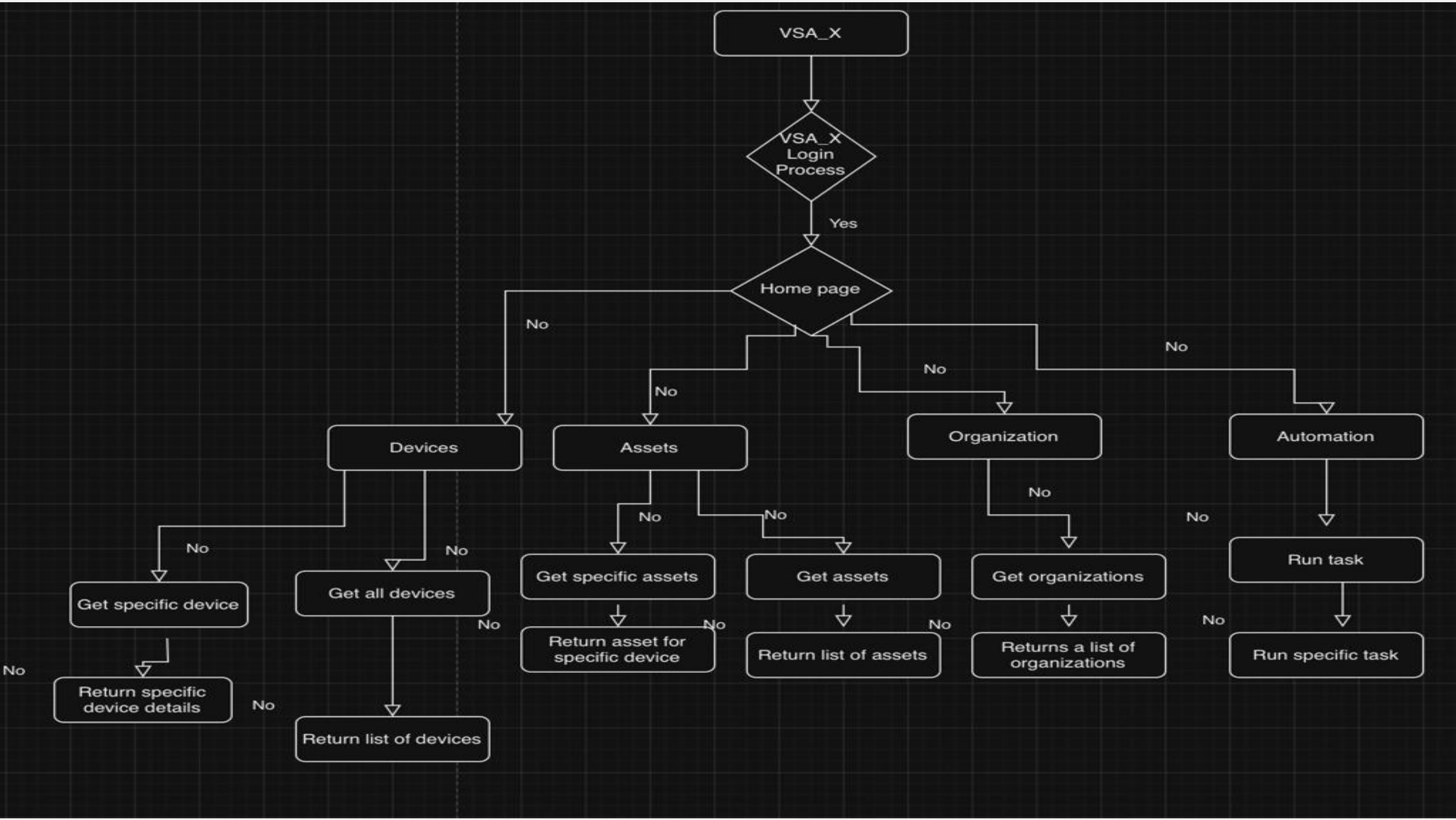


PROBLEM

The introduction of Kaseya's new flagship model, VSA X, posed challenges in user interface design that fell short of expectations. Both the prior VSA 9 and the current VSA X presented intricate user interfaces, creating difficulties for new users. In response, our tailored Kaseya VSA application emerged to address this challenge directly, providing IT professionals with a more straightforward and interactive approach to accessing their critical user data.

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

SYSTEM DESIGN



VERIFICATION

Testing took place on a local host for Nextcloud, encapsulated within a Docker container to streamline deployment and ensure reproducibility. In addition, a dedicated Nextcloud server was set up to host our Customized Kaseya VSA app, providing open access to users via the server's IP address. This approach facilitated broader testing and increased user engagement.

Throughout the development process, real-time monitoring was achieved by executing the code on the Nextcloud local host. Collaborative development was supported through GitHub, where Git functionality enabled seamless code version management, pull requests, and collective review and improvement of project files. This thorough verification process not only guaranteed the reliability of our solution but also nurtured effective collaboration and continuous improvement throughout the development lifecycle.

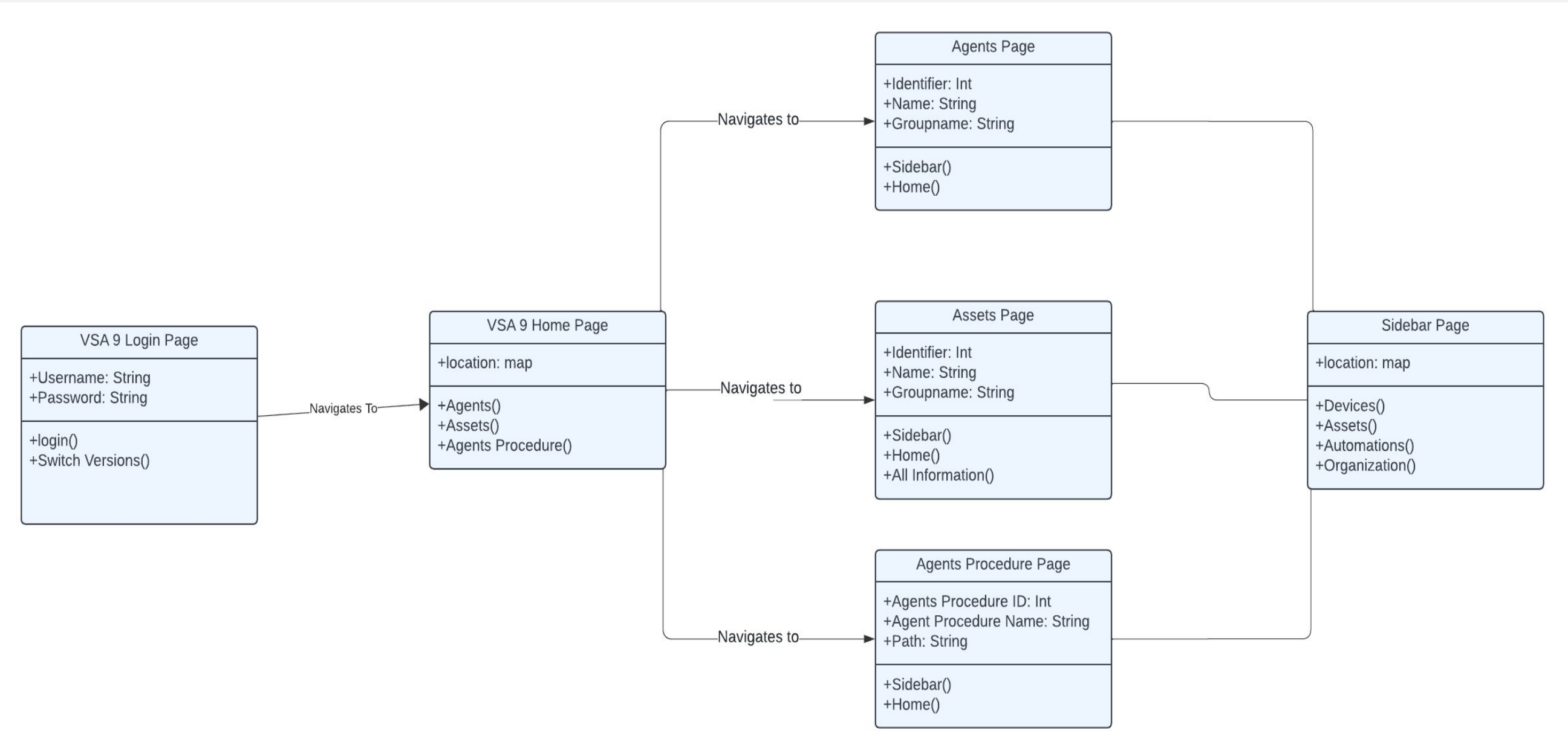
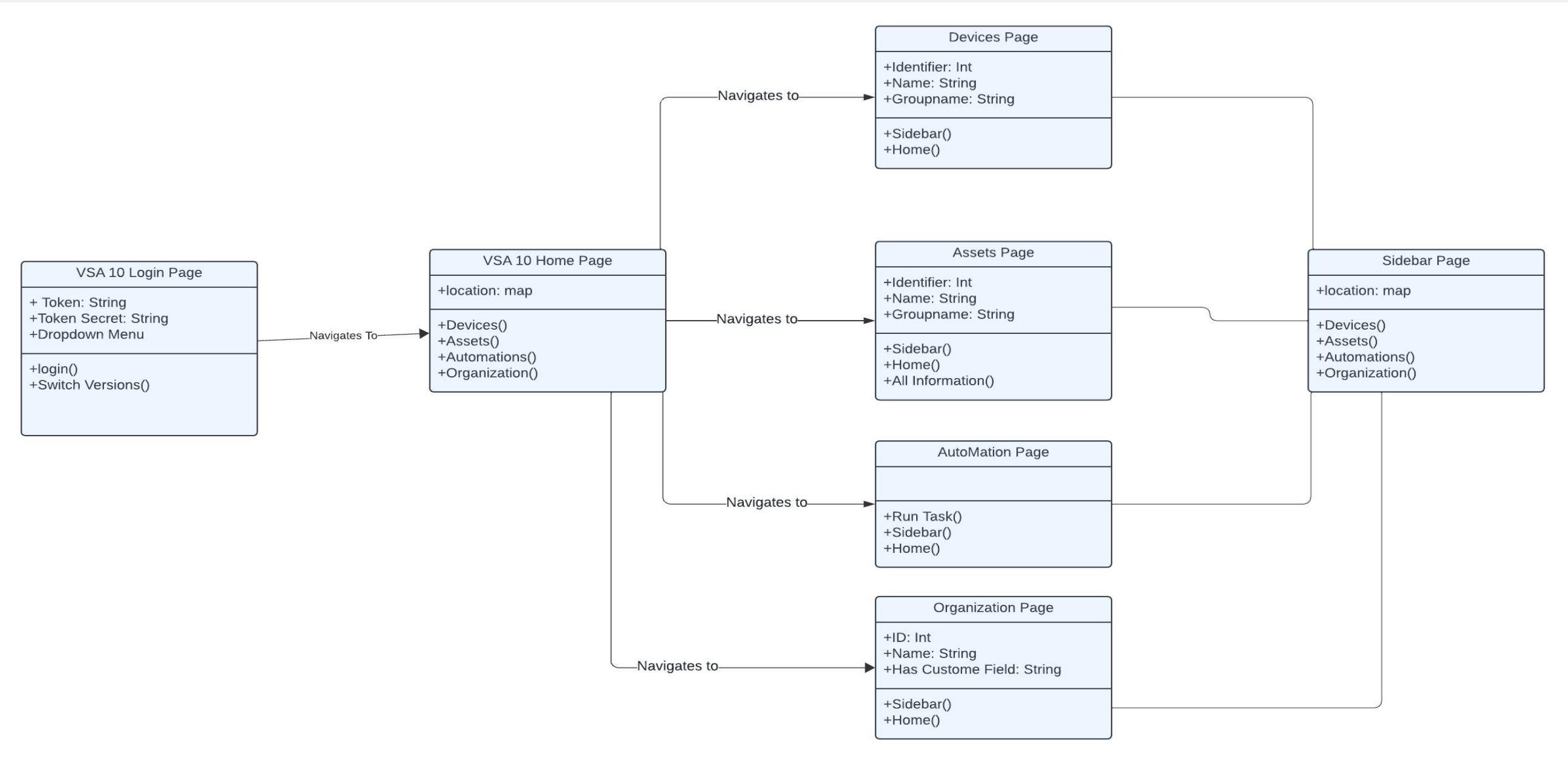
CURRENT SYSTEM

The inaugural launch of the tailored VSA brings about features aimed at improving user experience:

- Obtain in-depth insights into the agents functioning within the VSA X environment.
- Effortlessly identify and monitor individual devices within the system.
- Retrieve information about the organization to which a specific device is affiliated.
- Comprehend the group associations of devices, offering crucial context for streamlined management.
- Access detailed information about a particular device, streamlining troubleshooting and management tasks.

The existing system provides users with the flexibility to switch between VSA 9 and VSA X applications.

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 dual primary objectives:

Authentication and Data Retrieval:

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

Intuitive User Interface (UI):

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

SUMMARY

This initial release of the Nextcloud App signifies the commencement of our exploration into integration with Kaseya VSA. From the ground up, we meticulously designed a user interface, prioritizing simplicity and ease of interaction, while intricately incorporating Kaseya's Rest API into our application's framework. Engaging in this project provided me with invaluable insights into the intricacies of UI design, API integration, and collaborative development. The journey deepened my understanding of software architecture, real-time testing, and version control, utilizing platforms such as GitHub. Overall, this experience has been a significant milestone, equipping me with practical skills and knowledge that extend well beyond the scope of this particular project

IMPLEMENTATION



INDIVIDUAL CONTRIBUTUION

In my recent project, I took on a pivotal role in crafting the user interface and enhancing the overall user experience by spearheading the development of the home page and frontend components using Vue.js. Leveraging the robust capabilities of Vue.js, I meticulously designed and implemented key features, ensuring a seamless and responsive interface. My commitment to quality was further demonstrated through rigorous testing and iterative refinement. Additionally, I played a crucial part in streamlining the project's collaborative workflow by utilizing GitHub for version control and launching. This allowed for efficient code management, collaborative contributions, and a smooth deployment process, showcasing my dedication to fostering a collaborative and organized development environment.

ATTENTION: Subheadings shown above is a recommended structure for a research/scientific poster. Main elements of a poster are Introduction, Research and Conclusions, and Discussion. 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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