Project Description

AcademiX is an all-in-one student platform designed to tackle the critical challenges of online learning. Developed by Team FLUX, AcademiX aims to streamline the educational experience by offering a comprehensive suite of tools to help students stay organized, reduce stress, and enhance productivity. Our platform integrates essential features to ensure students can effectively manage their academic responsibilities while fostering a collaborative and supportive online community.

Requirements Summary

System Requirements

- **Operating System (OS):**

  Minimum: Android Pie (Android 9.0) or later, iOS 12 or later

  Recommended: Android 11 or later, iOS 14 or later

  To ensure compatibility and access to the latest features and security updates, we support Android Pie (9.0) and iOS 12 as the minimum versions. However, for an optimal experience, we recommend using Android 11 or later, and iOS 14 or later.

- **Memory (RAM):**

  Minimum: 2GB RAM

  Recommended: 4GB RAM

  A minimum of 2GB RAM is necessary for basic app functionality and responsiveness. For an enhanced and smooth user experience, especially with multitasking and resource-intensive features, we strongly recommend 4GB RAM.

- **Storage Space:**

  Minimum: 300MB of free storage

  Recommended: 600MB of free storage

  AcademiX needs at least 300MB of free storage space for installation and basic operations, including saving notes and downloading course materials. For optimal performance and to comfortably accommodate future updates and additional resources, 600MB of free storage is recommended.

- **Bandwidth:**

  Minimum: 300 kbps

Recommended: 500 kbps or higher

To ensure smooth loading of content and uninterrupted connectivity for features like video calls and real-time collaboration, a minimum internet speed of 300 kbps is required. For a more seamless experience, especially during high-demand tasks such as streaming video lectures or uploading assignments, a speed of 500 kbps or higher is recommended.

- **Screen Resolution:**

  Minimum: 720 x 1280 pixels

  Recommended: 1080 x 1920 pixels

  To ensure that all interface elements are clearly visible and easy to interact with, a minimum screen resolution of 720 x 1280 pixels is necessary. For a more comfortable and visually appealing experience, particularly when reading text and viewing detailed content, a resolution of 1080 x 1920 pixels is recommended.

- **Processor:**

  Minimum: Dual-core processor

  Recommended: Quad-core processor or better

  A dual-core processor is sufficient to handle basic functionalities of AcademiX, such as navigating the interface, accessing course materials, and using the calendar. For better performance, particularly when engaging in more resource-intensive activities like group video calls or interactive simulations, a quad-core processor or better is recommended.

- **Additional Requirements:**

  Camera: Front-facing camera with a minimum of 5 MP for video conferencing and collaborative features.

  Microphone and Speakers: Integrated or external microphone and speakers for clear audio during video calls and collaborative sessions.

  Battery Life: Minimum battery capacity of 3000 mAh to ensure adequate usage time without frequent recharging.

Overview

Heuristic Evaluation

- **Rationale**: Heuristic evaluation is a foundational assessment methodology that leverages the expertise of seasoned usability professionals. These experts evaluate AcademiX against established usability heuristics to identify potential issues. This method provides a rigorous and systematic review of the platform's interface and interactions, highlighting areas where the user experience can be improved based on well-recognized usability principles.
- **Task**: Our team conducted an evaluation of AcademiX's interface and interactions using industry-standard heuristics. These heuristics included principles such as visibility of system status, match between system and the real world, and user control and freedom. Each aspect of the platform was scrutinized to identify and document usability issues that might impede the user experience.

Task Analysis

- **Rationale**: Task analysis is a critical component of our evaluation strategy, allowing us to break down AcademiX's functionalities into discrete, manageable tasks. This detailed approach helps us understand how students interact with the platform, identifying usability challenges and enhancing our knowledge of user workflows. By examining each task closely, we can pinpoint specific areas where the user experience can be optimized.

- **Task**: We meticulously deconstructed AcademiX's functionalities into individual tasks, such as logging, interacting with peers and etc. Each task was analyzed for its complexity, frequency, and potential usability barriers. This granular analysis provided a clear view of the user journey and highlighted specific areas where improvements are needed.

Surveys

- **Rationale**: Surveys are essential for collecting direct feedback from students, providing valuable insights into their perceptions of AcademiX's usability and effectiveness. By conducting both face-to-face and online surveys, we gathered a comprehensive understanding of user experiences and satisfaction levels. This feedback is crucial for identifying strengths and areas for improvement from the perspective of actual users.

- **Task**: We designed a structured survey questionnaire to capture both quantitative and qualitative feedback from students. The survey addressed various aspects of the user experience, including ease of navigation, clarity of instructions, satisfaction with features, and overall usability. Additionally, face-to-face interviews were conducted to supplement the survey data, offering deeper insights and

nuanced perspectives on students' interactions with AcademiX. These combined approaches provided a holistic view of the user experience and informed our recommendations for platform enhancements.

Users Involved in the Study:

The evaluation engaged a diverse cohort of students, representing various academic disciplines and levels of familiarity with online learning platforms. Their perspectives and experiences were instrumental in identifying usability issues and informing recommendations for enhancing AcademiX. By prioritizing student feedback, we ensured that the evaluation process remained grounded in the needs and preferences of the end users, ultimately driving improvements to the platform's usability and functionality.

Data Presentation

Heuristic Evaluation Findings:

1. **Visibility of System Status:** Users were delighted with the real-time updates on task completion and collaboration activities, making task management and team coordination a breeze.
2. **Match Between System and the Real World:** The use of familiar academic terminology seamlessly guided users through the platform, making their experience smoother and less mentally taxing.
3. **User Control and Freedom:** AcademiX makes users free to make their own content and own decisions about which features to use.
4. **Consistency and Standards:** AcademiX's adherence to consistent design patterns ensured a cohesive and predictable user experience across different sections, making navigation intuitive and seamless.
5. **Error Prevention:** Incorporating validation checks and confirmation prompts helped users avoid mistakes and navigate potential pitfalls during task execution.
6. **Recognition Over Recall:** Contextual display of relevant information minimized the need for users to remember details, making their interactions more efficient and less taxing.
7. **Flexibility and Efficiency of Use**: AcademiX’s being an all-in-one student platform makes it flexible and efficient to use.
8. **Aesthetic and Minimalist Design**: The clean and minimalist design aesthetic of AcademiX was praised for its visually pleasing and clutter-free interface, making it a joy to use.
9. **Help Users Recognize, Diagnose, and Recover from Errors:** Informative error messages with resolution suggestions helped users troubleshoot issues but the

lack of comprehensive help and documentation sometimes left users uncertain about next steps.

10. **Help and Documentation:** AcademiX's manual provides a solid foundation, and the addition of step-by-step video tutorials will further enhance user understanding and engagement

Evaluate the chose design according to Nielsen's Heuristics and Justify					
Area of Evaluation	**5**	**4**	**3**	**2**	**1**
A. Visibility of System Status The system design provides appropriate feedback like message prompts in response to user actions. - The message prompts are clear, visible and understandable.					
Evaluation The system does a commendable job of providing clear and timely feedback in response to user actions. For instance, message prompts and notifications are prominently displayed, ensuring users are always aware of the system's status.					
B. Match between the system and the real world - Used words, phrases and concepts according to users' language rather than system oriented words and computer jargons.					
Evaluation The design excels in using language and concepts familiar to users, avoiding technical jargon. Sections are clearly labeled with intuitive terms like "Messages," "Library," and "Tasks," which resonate well with users' everyday experiences.					
C. User control and freedom - The system design provides ways of allowing users to easily "get in" and "get out" if they find themselves in unfamiliar parts of the system.					
Evaluation The system thoughtfully allows users to navigate easily, offering options to exit or undo actions, such as the "cancel" button during searches and "delete account" in settings. This empowers users with a sense of control. Personalization of the navigation bar is also an option.					
D. Consistency and Standards The colors, text, labels, buttons and other elements in the design are uniform from start to finish. - Text and icons are not too small or too big. - Menus and other features of the system are arranged and positioned in a consistent way. (For ex. If your website has navigation buttons on the top under the page title on one page, the users will automatically look there for the same features on other pages.					
Evaluation					

The design maintains a high level of consistency in colors, text, labels, and button placements across various sections. This uniformity helps users feel comfortable and oriented within the application.					
E. Error Prevention - The system design provides an automatic detection of errors and preventing them to occur in the first place. - Idiot proofing mechanisms are applied					
Evaluation The system has an error prevention mechanism, such as confirmations for critical actions like deleting an account.					
F. Help users recognize, diagnose and recover from errors - Error messages and the terms used are recognizable, familiar and understandable for the users.					
Evaluation The system error easily understood with the use or recognizable, familiar and understandable wording. The errors can also be easily found in the about section.					
G. Recognition rather than recall - Objects, icons, actions and options are visible for the user. - Objects are labeled well with text and icons that can immediately be spotted by the user and matched with what they want to do.					
Evaluation The design effectively uses well-labeled icons and text, making it easy for users to recognize actions without having to rely on memory.					
H. Flexibility and efficiency of use - The system design provides easy to navigate menus. - the system does not make wasteful time of system resources.					
Evaluation Menus are designed to be easily navigable, and there are shortcuts for frequent actions, as seen in the sidebar and task creation. This enhances efficiency and user satisfaction.					
I. Aesthetic and minimalist design -Graphics and animations used are not difficult to look at and does not clutter (mess) up the screen. - Information provided is relevant and needed for the system design.					
Evaluation The design is visually appealing and maintains a minimalist approach, avoiding clutter. Information is presented in a clear and organized manner, making the application easy on the eyes and user-friendly. Also, the addition of application themes can help the app adapt to the users preferences.					
J. Help and Documentation					

-the system design provides information that can be easily searched and provides help in a set of concrete steps that can easily be followed.					
Evaluation The prototype provides step by step guides and videos for how to use the system.					
SUGGESTION FOR IMPROVEMENTS					
To enhance the user experience, focusing on refining the error prevention and recovery mechanisms, such as making context-based prompts like when deleting an account, it would prompt that you have 7 days to undo the deletion and not just would you like to delete. Adding a trash feature will also add to idiot proofing of the system. Lastly, continuously gather user feedback to iterate and address issues.					

Task Analysis Findings:

1. Login Process: Users found the login process straightforward, but occasional issues with forgotten passwords suggested a need for smoother password recovery options.
2. Accessing Resources: Users navigated course materials easily, but some desired improved search functionality for quicker resource location.
3. Task Management: Users appreciated task creation and editing features, but integration of calendar sync functionality was suggested for better task tracking.

Survey Results:

Ease of Use (Average Rating: 4.2):

- Most users found the platform easy to navigate, with a few suggestions for more intuitive access to certain features like a customizable navigation bar.

Performance in Task Management (Average Rating: 4.0):

- Users appreciated the task management feature, thou some noted to add more features in the future.

Accessing Resources (Average Rating: 3.8):

- Generally, users were able to find course materials easily, but recommended improvements in search filters.

Collaboration Tools (Average Rating: 4.3):

- The tools were effective, with requests for more real-time collaboration features in the future.

Responsiveness (Average Rating: 4.1):

- The platform was responsive.

Learnability (Average Rating: 4.5):

- Users found AcademiX easy to learn, with intuitive design being a strong point.

Memorability (Average Rating: 4.4):

- The interface was memorable, with users able to navigate easily after periods of non-use.

Utility (Average Rating: 4.6):

- AcademiX was highly regarded for supporting educational needs, with some requests for additional study tools.

Error Handling (Average Rating: 4.0):

- Error messages were clear, but some users experienced confusion during recovery processes.

Aesthetic and Minimalist Design (Average Rating: 4.2):

- The visual design was well-received, with minor suggestions for color scheme adjustments.

Help and Documentation (Average Rating: 4.0):

- Help resources were accessible, though some users desired more in-depth tutorials.

Overall Satisfaction and Recommendation (Average Satisfaction Rating: 4.3):

- Users were satisfied and would recommend AcademiX to peers, with some noting room for minor improvements.

Data analysis

I. Upon examination of the heuristic evaluation, task analysis, and survey feedback, it is apparent that AcademiX is distinguished by its user-centric design and robust support for educational endeavors. The platform's real-time updates and judicious use of academic vernacular significantly streamline the user experience, fostering an environment of clarity and ease.

II. AcademiX empowers users with the freedom to craft their educational content, reflecting a deep understanding of the need for personalization in the learning process. The platform's unwavering commitment to design consistency ensures a seamless and intuitive user journey.

III. While preventative measures for errors are commendable, there is a discernible need for bolstering user support in error resolution, suggesting an area ripe for development. The platform's adaptability and comprehensive nature are lauded, as is its minimalist design ethos, which contributes to an uncluttered and conducive learning atmosphere.

IV. Task analysis insights reveal that enhancements in password recovery protocols and search functionalities could significantly augment user convenience.

V. The survey feedback accentuates AcademiX's triumph in crafting an accessible interface that champions learning and cooperation. Nonetheless, it also illuminates user aspirations for refined search mechanisms, streamlined error rectification processes, and enriched instructional support through comprehensive documentation and visual guides.

VI. In essence, AcademiX has solidified its position as an effective online learning platform with a foundational emphasis on user experience. To further refine this experience, strategic advancements in support resources, search efficiency, error management, and communicative features are advocated. These targeted improvements will not only address current user feedback but will also significantly contribute to AcademiX's progressive trajectory as a preeminent educational tool.

Design Implications

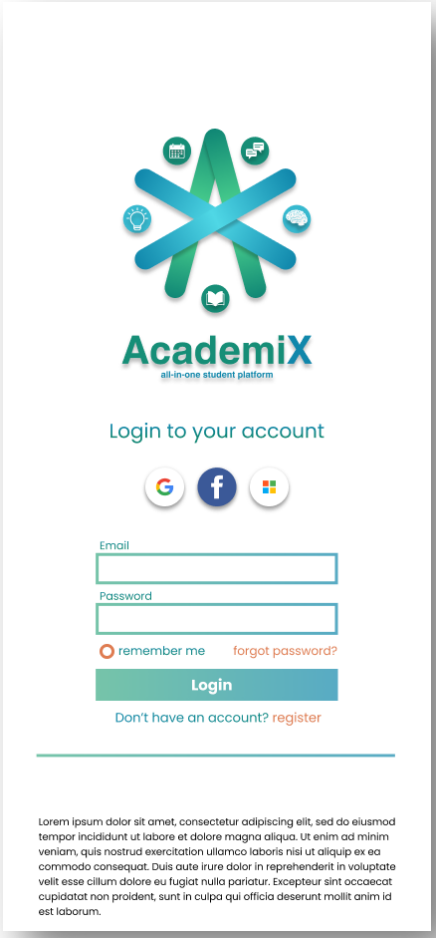
Based on the analysis, it's clear that while AcademiX has been largely successful, there are areas where design alterations could further enhance the user experience. The

prototype may require some adjustments to address the identified shortcomings and improve usability:

1. **Login Process:** Streamlining the login process could involve implementing smoother password recovery options or simplifying the authentication steps to reduce user friction during login. The use of social media accounts for login like Facebook or google.

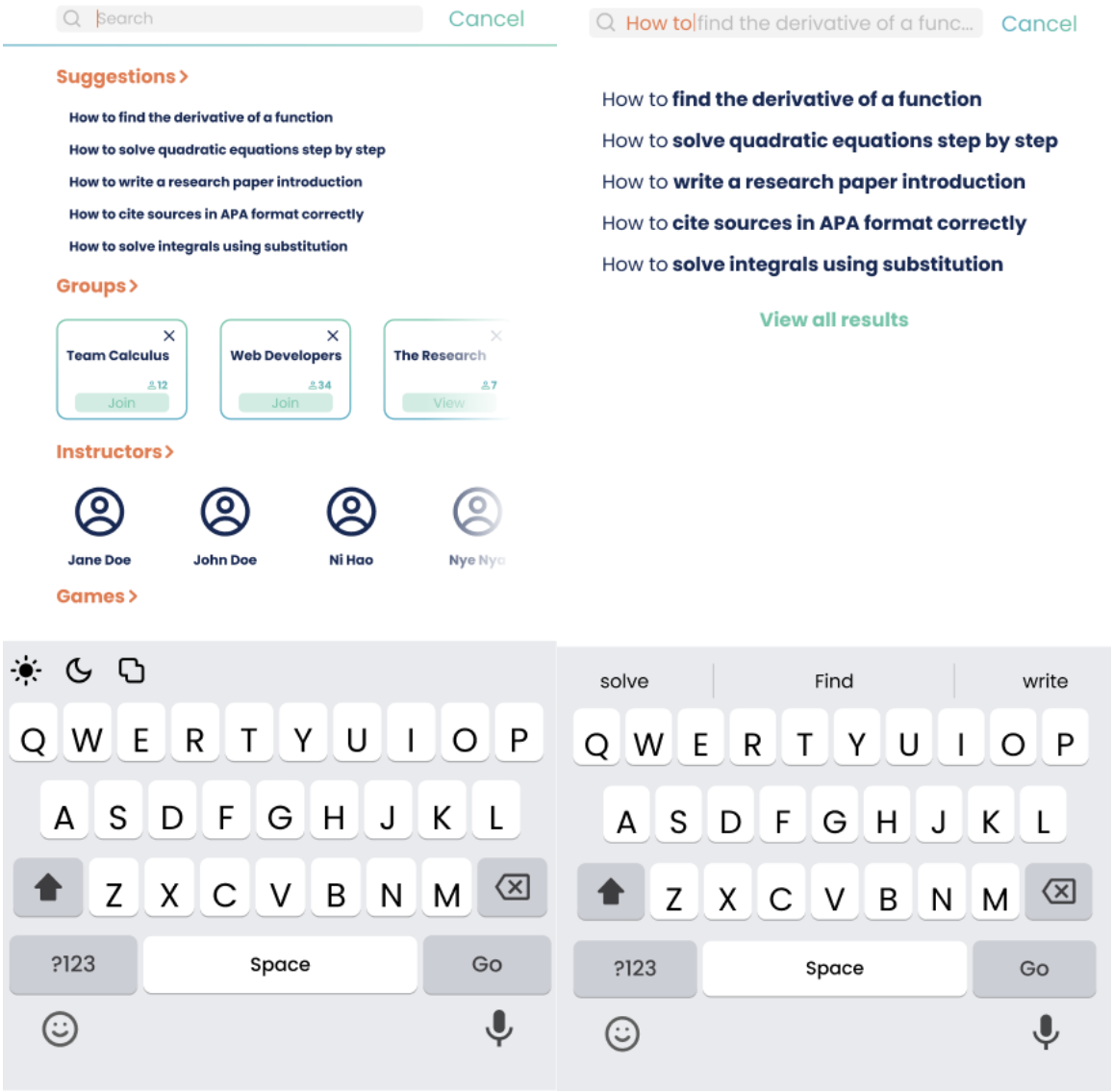
Before

After



2. **Search Functionality:** Enhancing search functionality could involve improving keyword recognition, implementing advanced filters, or providing predictive search suggestions to help users locate resources more efficiently.

Before



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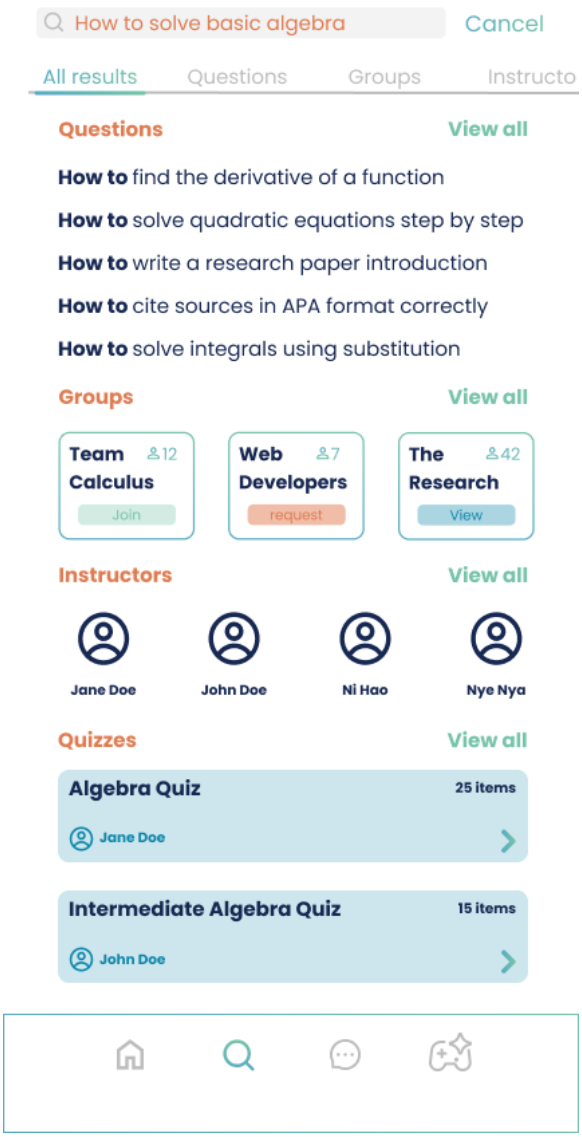
How to solve basic algebra
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All results
Questions
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How to find the derivative of a function
How to solve quadratic equations step by step
How to write a research paper introduction
How to cite sources in APA format correctly
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Intermediate Algebra Quiz
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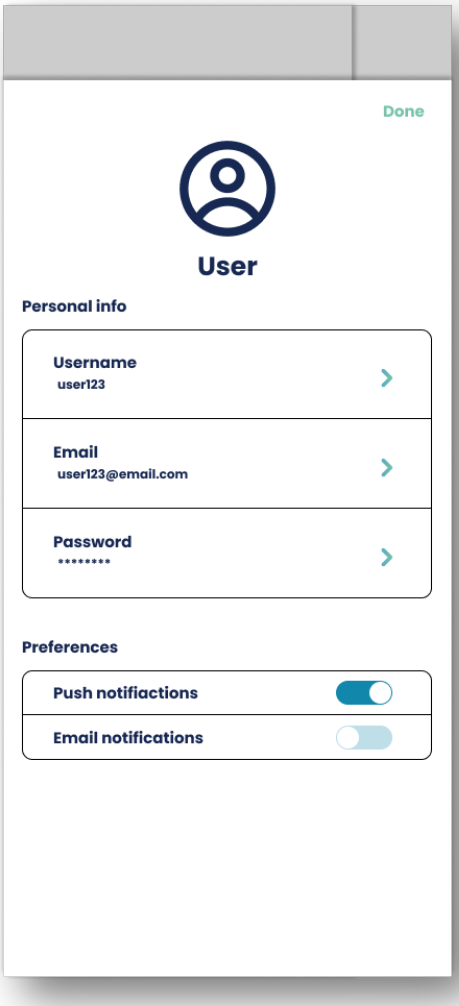
John Doe

3. **Help center and User manual:** Enhancing the Help Center and User Manual could involve the development of comprehensive FAQs, interactive tutorials, and step-by-step guides with visual aids, all designed to provide users with quick and easy access to the information they need to navigate and utilize the AcademiX platform effectively.

Addition of Tutorial to the about section

4. **Customizable Navigation Bar and Application Themes**: Introducing customizable navigation bars and application themes would offer users the ability to personalize their learning space, creating a more engaging and comfortable environment that caters to individual preferences and learning styles.

Before



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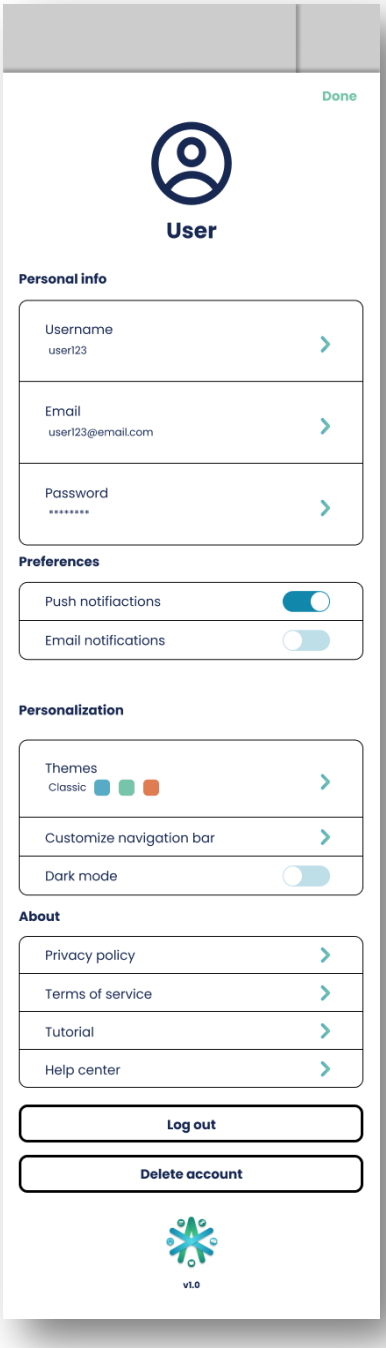
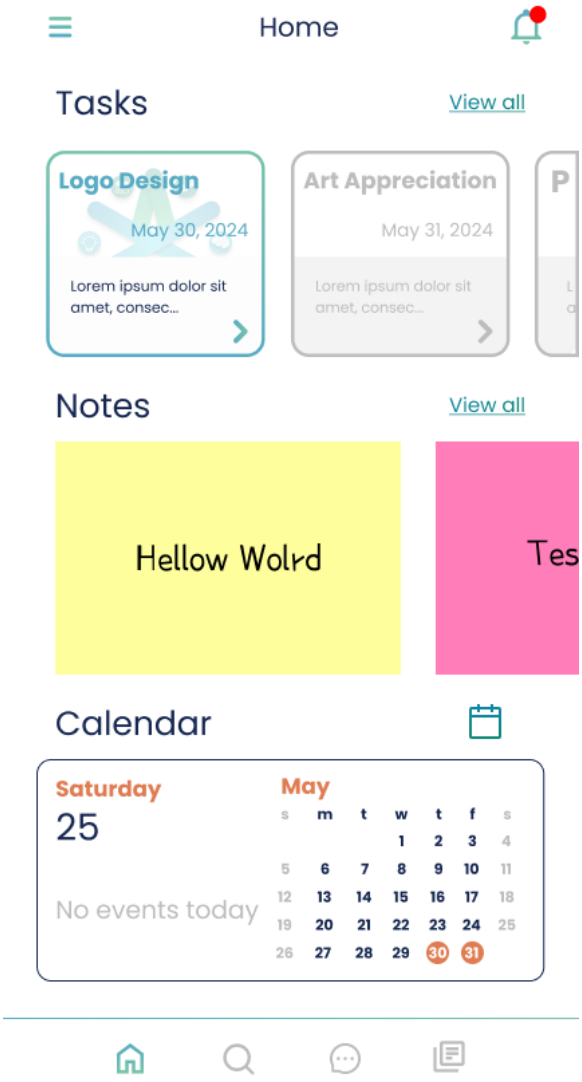
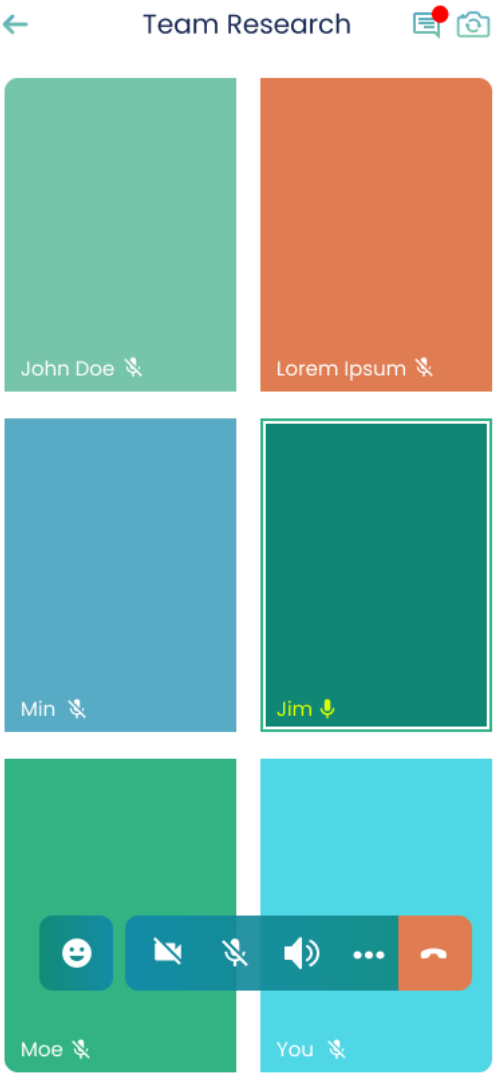


5. **Calendar Sync function:** Effortlessly integrate your academic schedule with your calendar application. Stay organized and never miss a deadline with all your important dates in one place.



6. **Emoticon Bar:** Effortlessly express your reactions in a meeting with our Emoticon Bar. Quickly share your feelings and feedback without interrupting the flow. Stay engaged and communicative with just a click.



While the analysis didn't uncover any major flaws necessitating a completely different type of design, it highlighted areas where incremental improvements could significantly enhance user satisfaction and usability. By iteratively refining the design based on user feedback and usability analysis, AcademiX can continue to evolve and better meet the needs of its users in the academic journey.

Critique and Summary

What were the advantages and disadvantages of your evaluation?

Advantages:

- **Comprehensive Evaluation:** Utilizing heuristic evaluation and task analysis provided a thorough assessment of AcademiX's usability and functionality.
- **User-Centric Feedback:** Engaging a diverse cohort of students ensured that feedback was relevant and grounded in actual user experiences.
- **Structured Documentation:** Systematic analysis helped in clearly identifying and documenting areas for improvement and strengths of the platform.

Disadvantages:

- **Limited Scope of Testing:** Evaluation was conducted on a small scale, which may not fully represent the diversity of potential user scenarios and challenges.
- **Resource Constraints:** Limited time and resources restricted the depth of some evaluations, such as long-term usability studies.
- **Lack of Real-World Testing:** The evaluations did not fully encompass performance under varied real-world conditions, such as different network speeds and device capabilities.

Design Improvements:

Knowing what we know now, we would enhance AcademiX by conducting extensive user testing with diverse students. This would provide practical insights into usability and functionality. Iterative prototyping would allow us to refine the application based on continuous feedback, incorporating advanced features such as customizable navigation bars and enhanced search functionality.

Evaluation Improvements:

With more resources, we would involve a more extensive and varied group of participants to capture a broader range of experiences. Testing the app in real-world scenarios would

provide a better understanding of its performance, and long-term usability studies would assess its effectiveness over time. Using advanced prototyping tools, conducting extensive user testing sessions, including usability testing and focus groups, and hiring professional usability experts would yield more insightful evaluation results. Additionally, thorough performance testing, comprehensive accessibility testing, and establishing a continuous feedback loop would ensure ongoing improvement and adaptation of AcademiX.

Project Summary

AcademiX is an all-in-one student platform designed by Team FLUX to address the challenges of online learning. It aims to streamline the educational experience by offering tools that help students stay organized, reduce stress, and enhance productivity. The platform integrates essential features, including task management, real-time updates, and collaboration tools, fostering a supportive online community.

The evaluation of AcademiX revealed strengths such as its real-time updates, intuitive interface, and flexibility in use. However, it also highlighted areas for improvement, such as the need for enhanced search functionality, better error handling, and more comprehensive user support resources. Survey results indicated high user satisfaction with the platform's ease of use, learnability, and utility, though there were suggestions for additional features and improvements.

AcademiX's user interface is highly appreciated for its user-centric design and the use of familiar academic terminology, which makes the user experience smoother and more intuitive. The platform's consistency, minimalist design, and effective error prevention create a cohesive and enjoyable user journey. However, to further enhance usability, improvements are needed in the help documentation, including the addition of step-by-step video tutorials. Refining the login process to facilitate easier password recovery and enhancing search functionality for faster resource location is also essential. Users have also recommended adding customizable navigation bars and more nuanced communication features like an emoticon bar. Addressing these areas will significantly boost the platform's effectiveness and user satisfaction.