ASSIGNMENT 4

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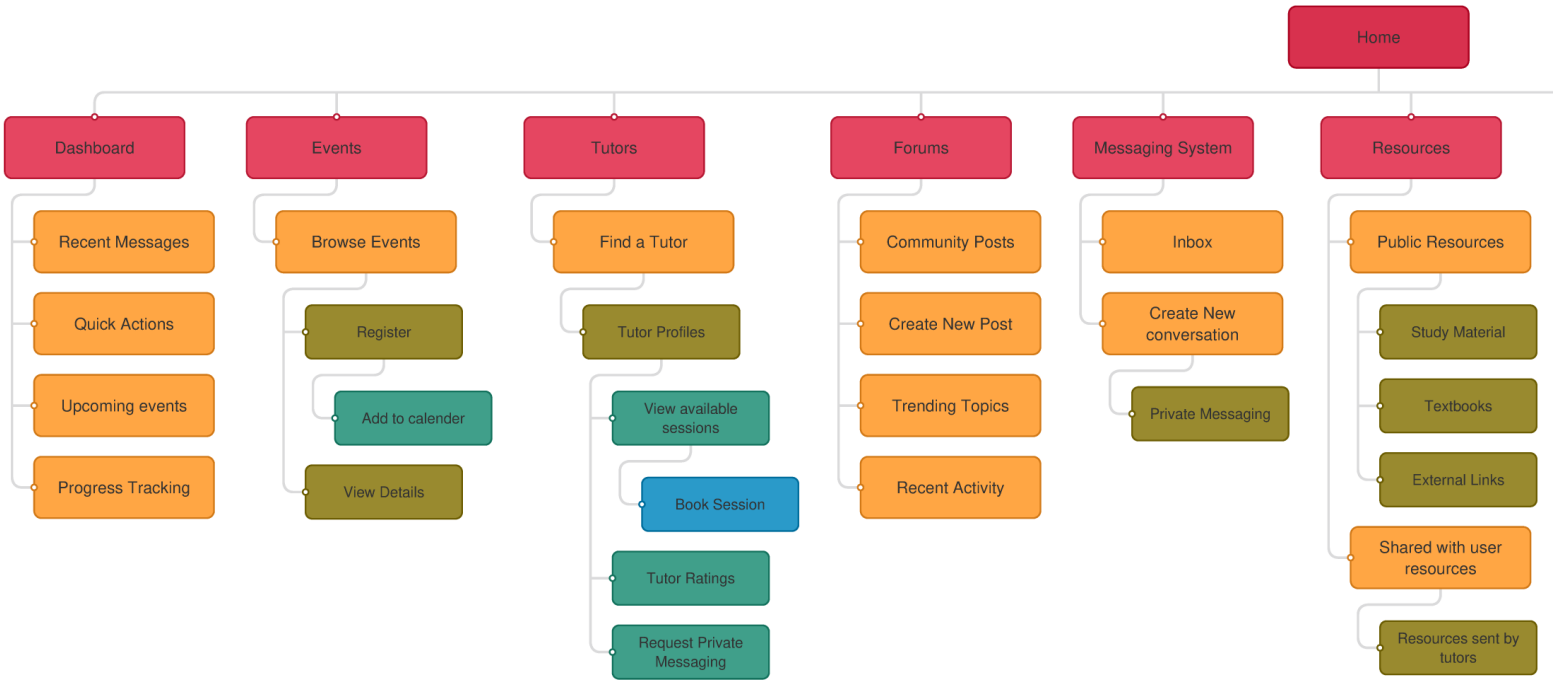
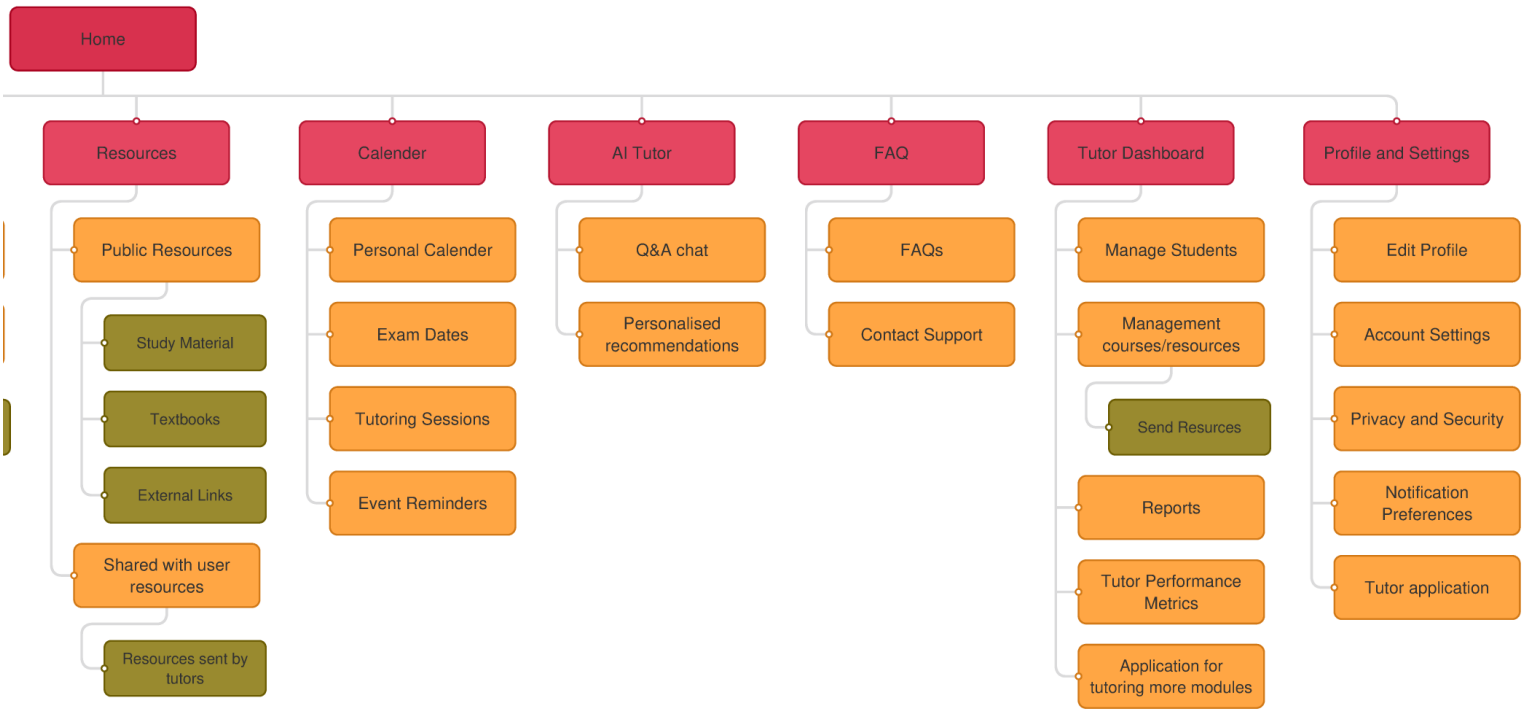
CampusLearn

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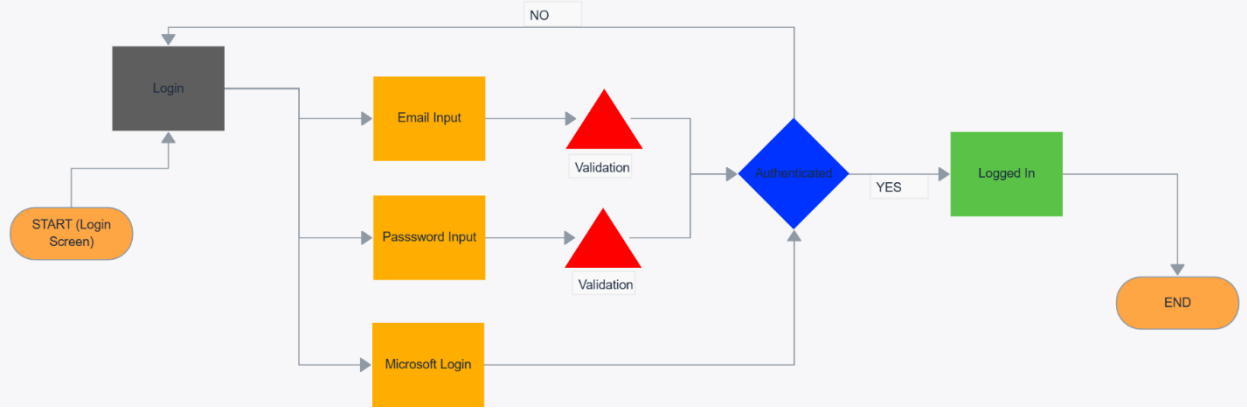
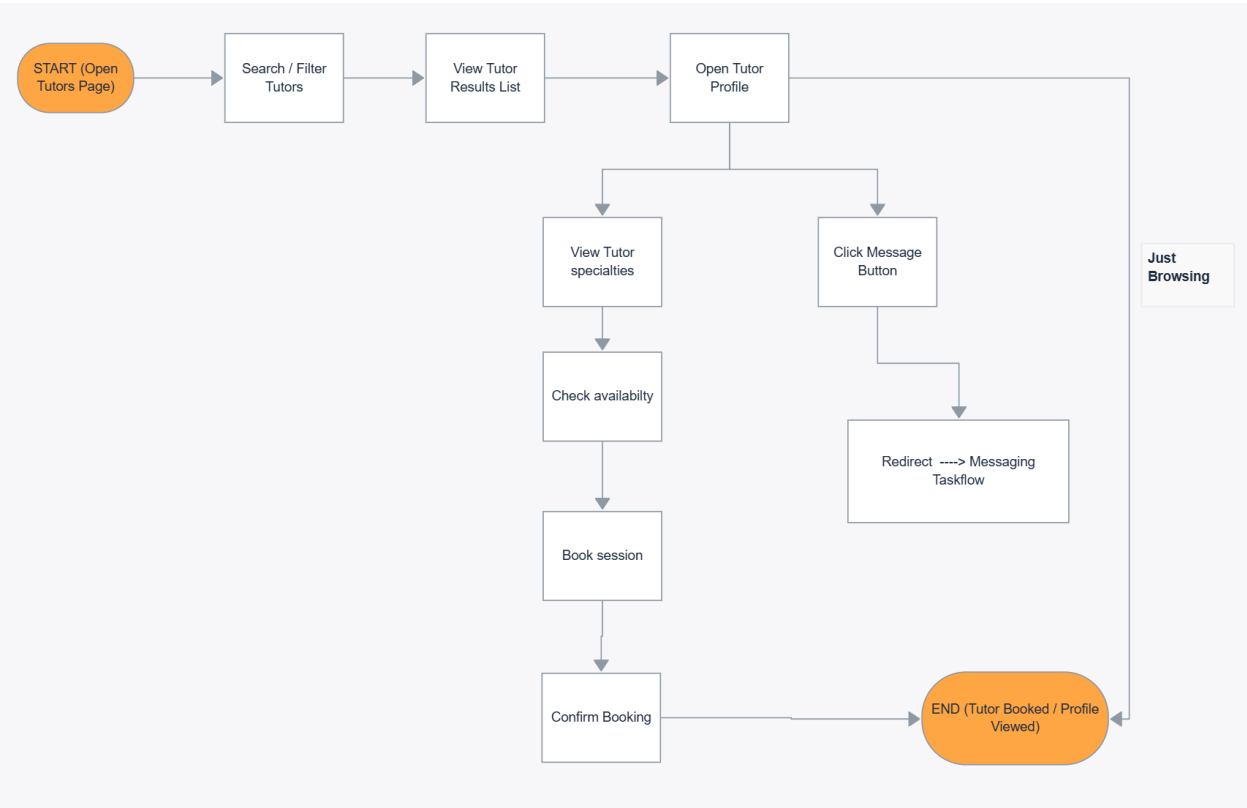
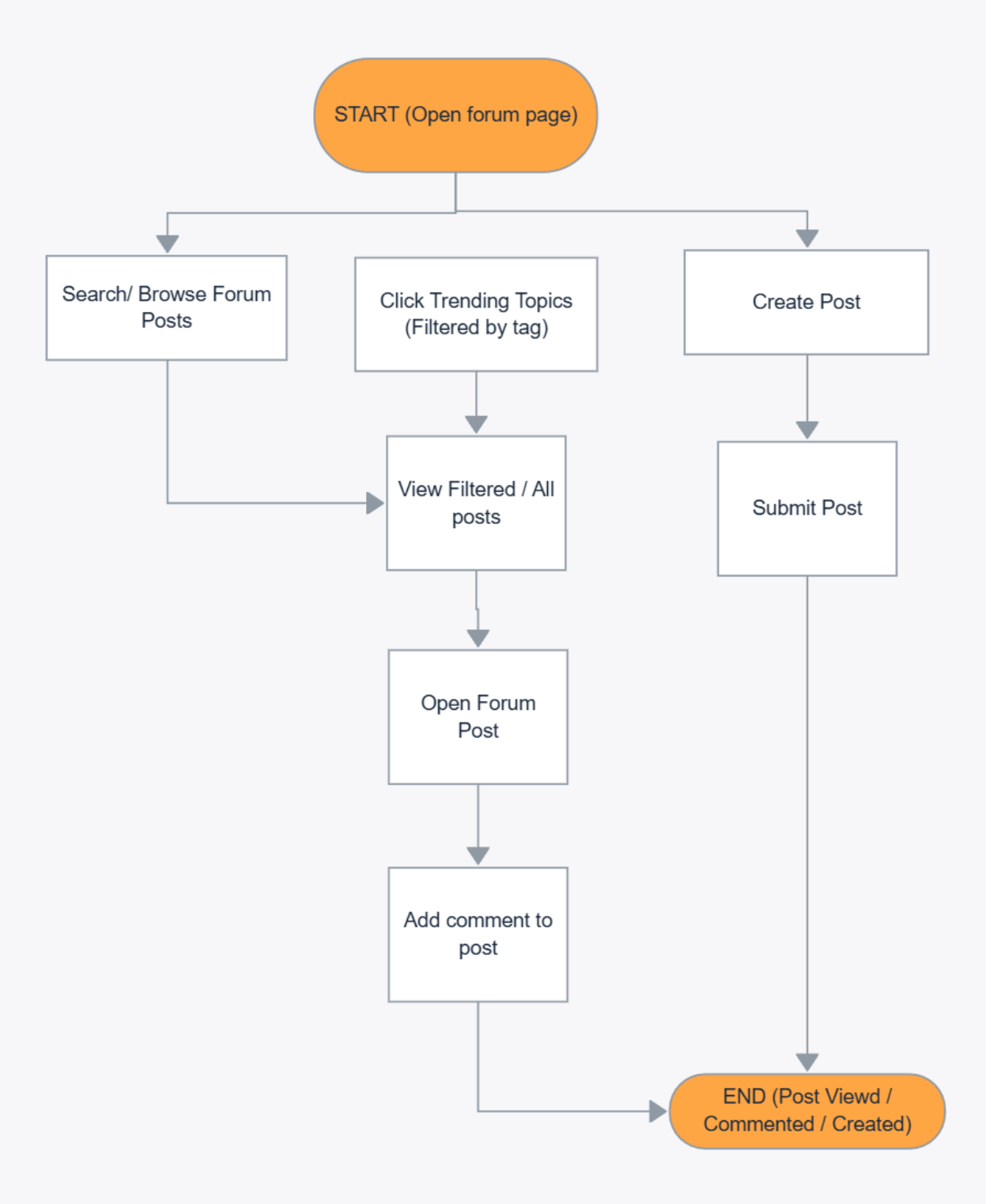


Events Form

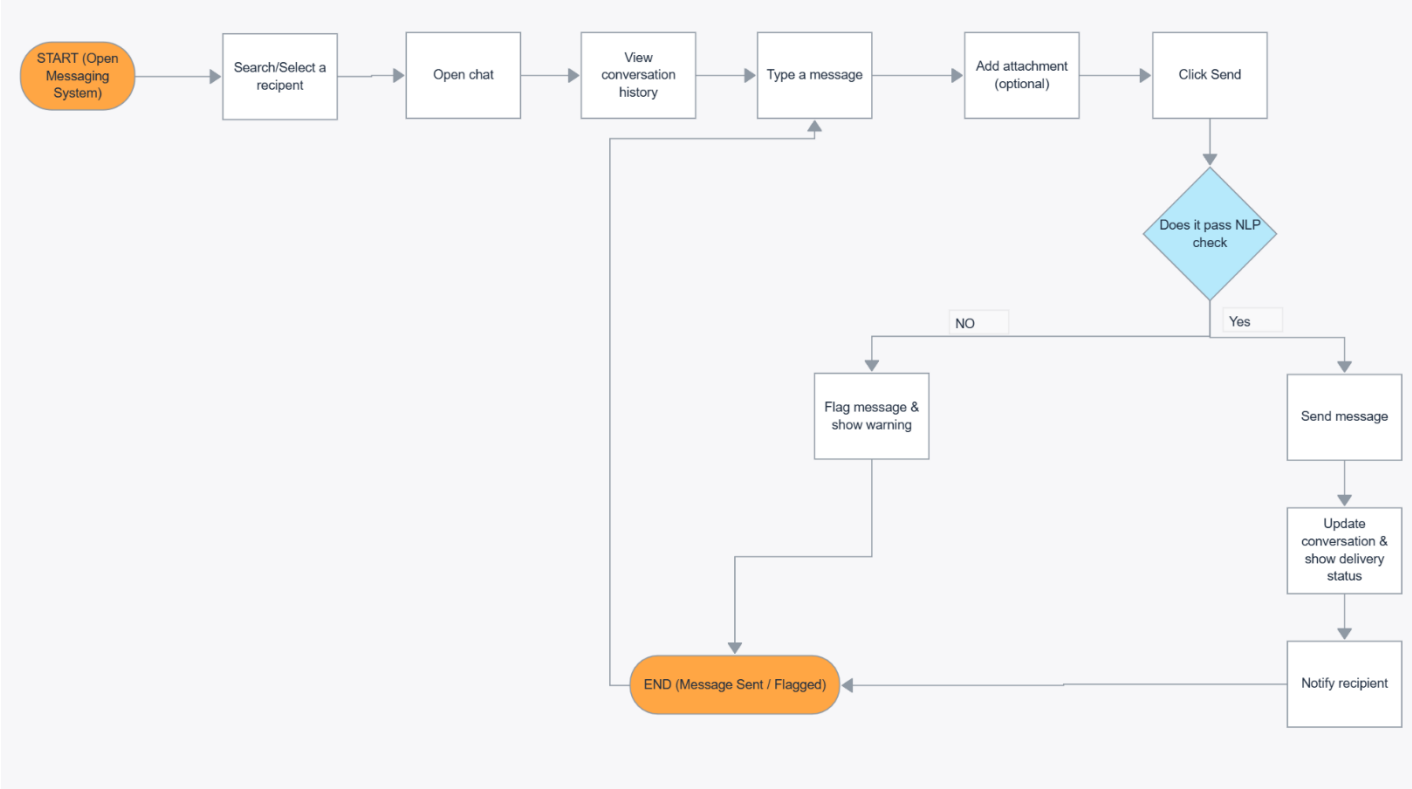
Tutors Form



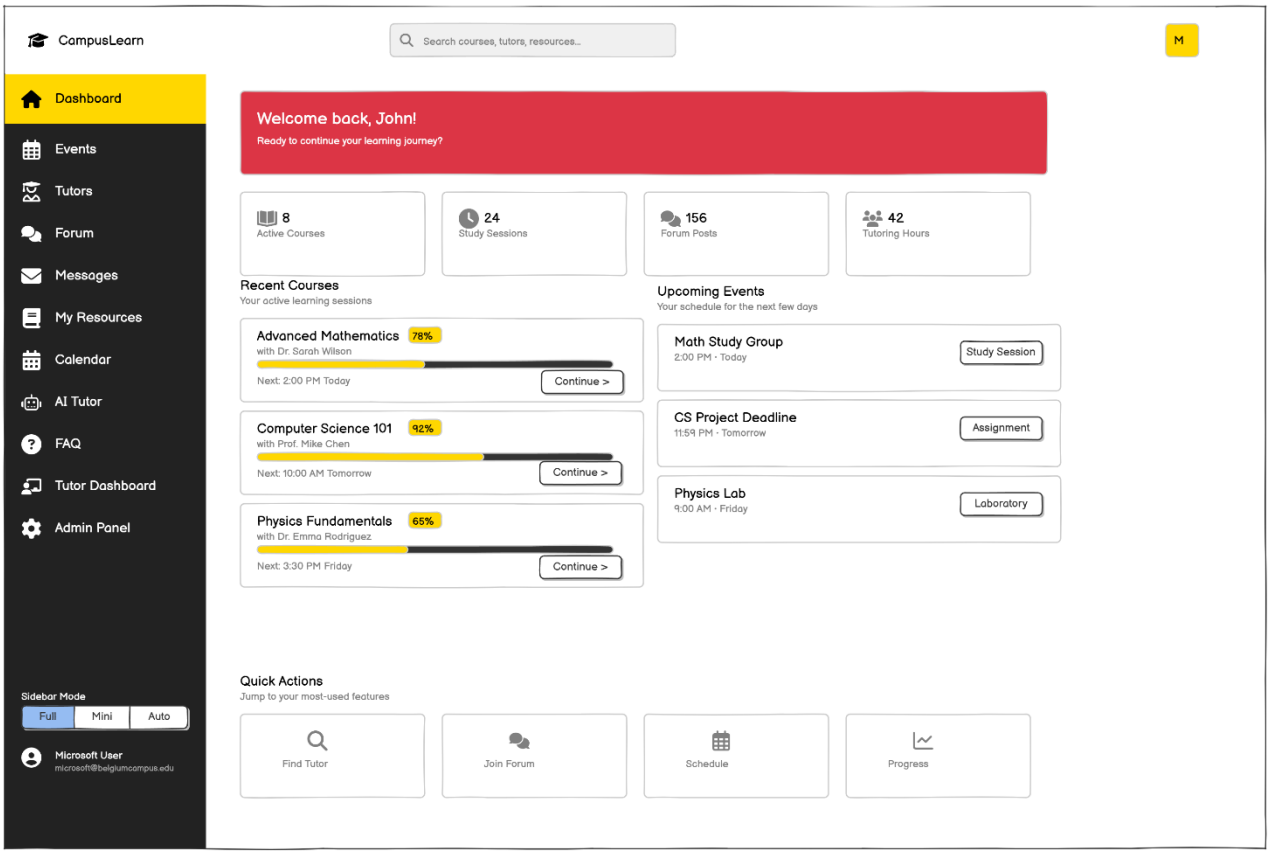
Forum Form


START (Open forum page)
Search/ Browse Forum Posts
Click Trending Topics (Filtered by tag)
Create Post
View Filtered / All posts
Submit Post
Open Forum Post
Add comment to post
END (Post Viewd / Commented / Created)

Messaging Form

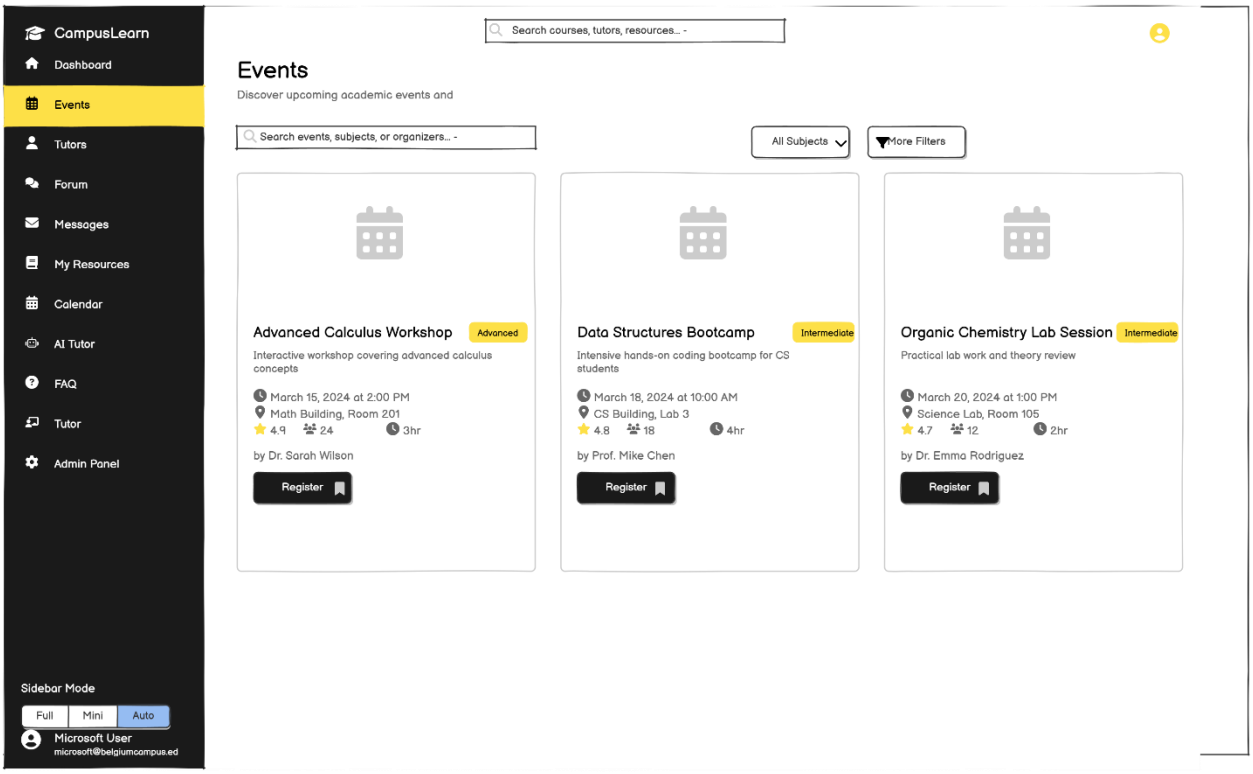


Wireframes



1. Student Dashboard

- **Layout Choice:** A clean, central hub with quick navigation to all major features (events, tutors, forum, resources).
- **Reasoning:** Dashboards should prioritize ease of access and give an overview at a glance. Placing the most frequently accessed sections upfront reduces friction for students.

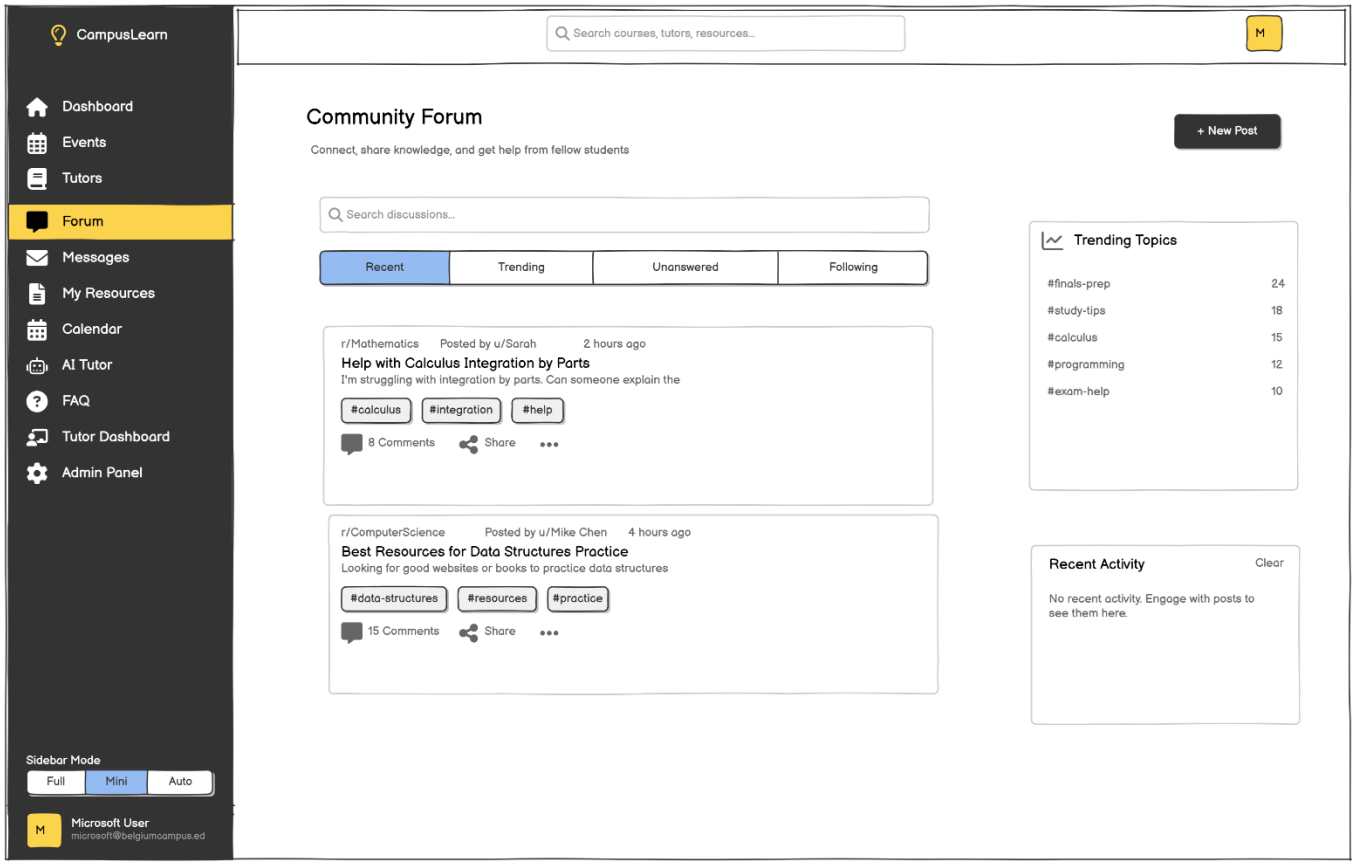


2. Events Page

- **Layout Choice:** Event listings structured as cards or a list with dates and quick action buttons (e.g., register/join).
- **Reasoning:** Students can easily scan upcoming opportunities. A chronological arrangement supports planning and reduces the risk of missing deadlines.

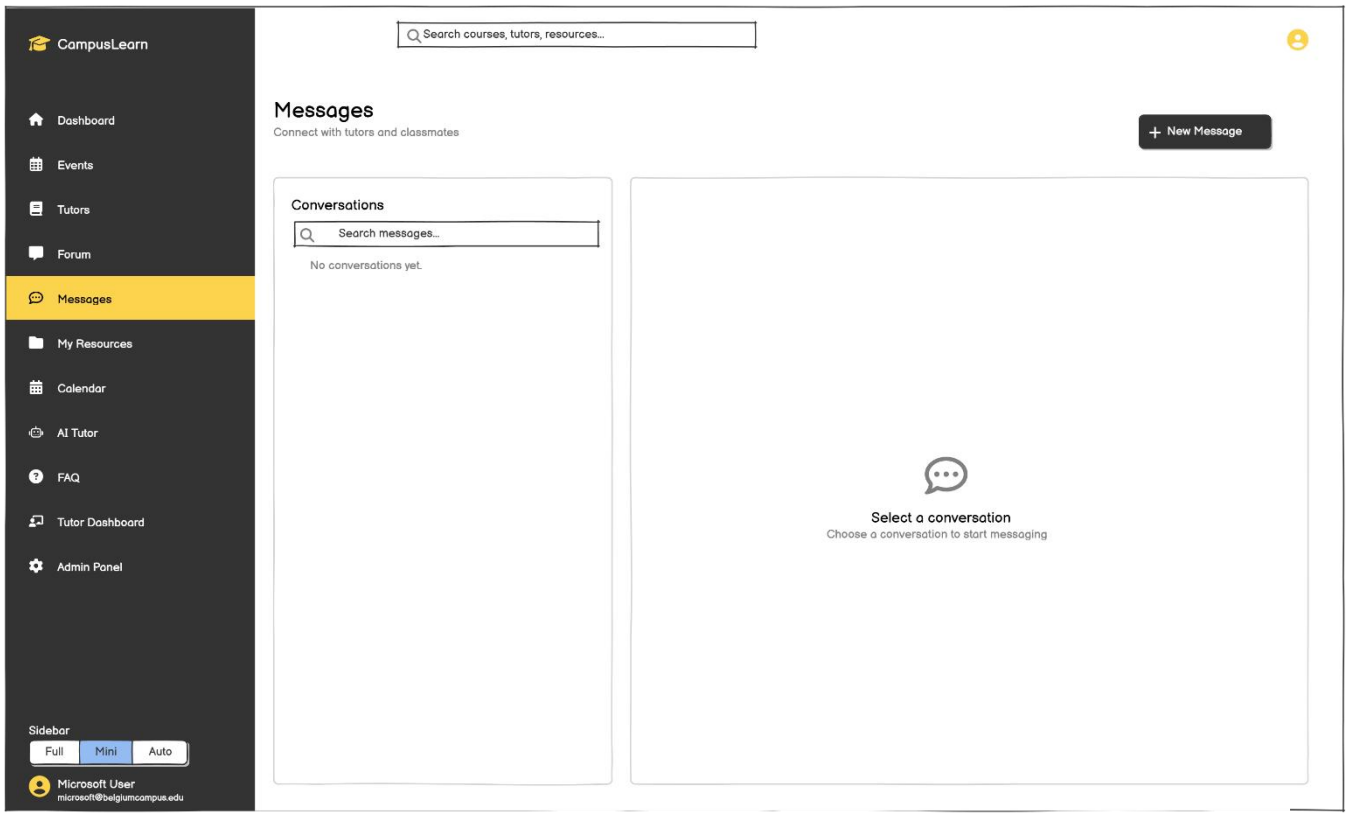
3. Tutors Page

- **Layout Choice:** Tutor profiles displayed with photo, subject expertise, and a “connect” or “message” option.
- **Reasoning:** Personalization (photos + bios) builds trust. The direct call-to-action button encourages faster student–tutor engagement.



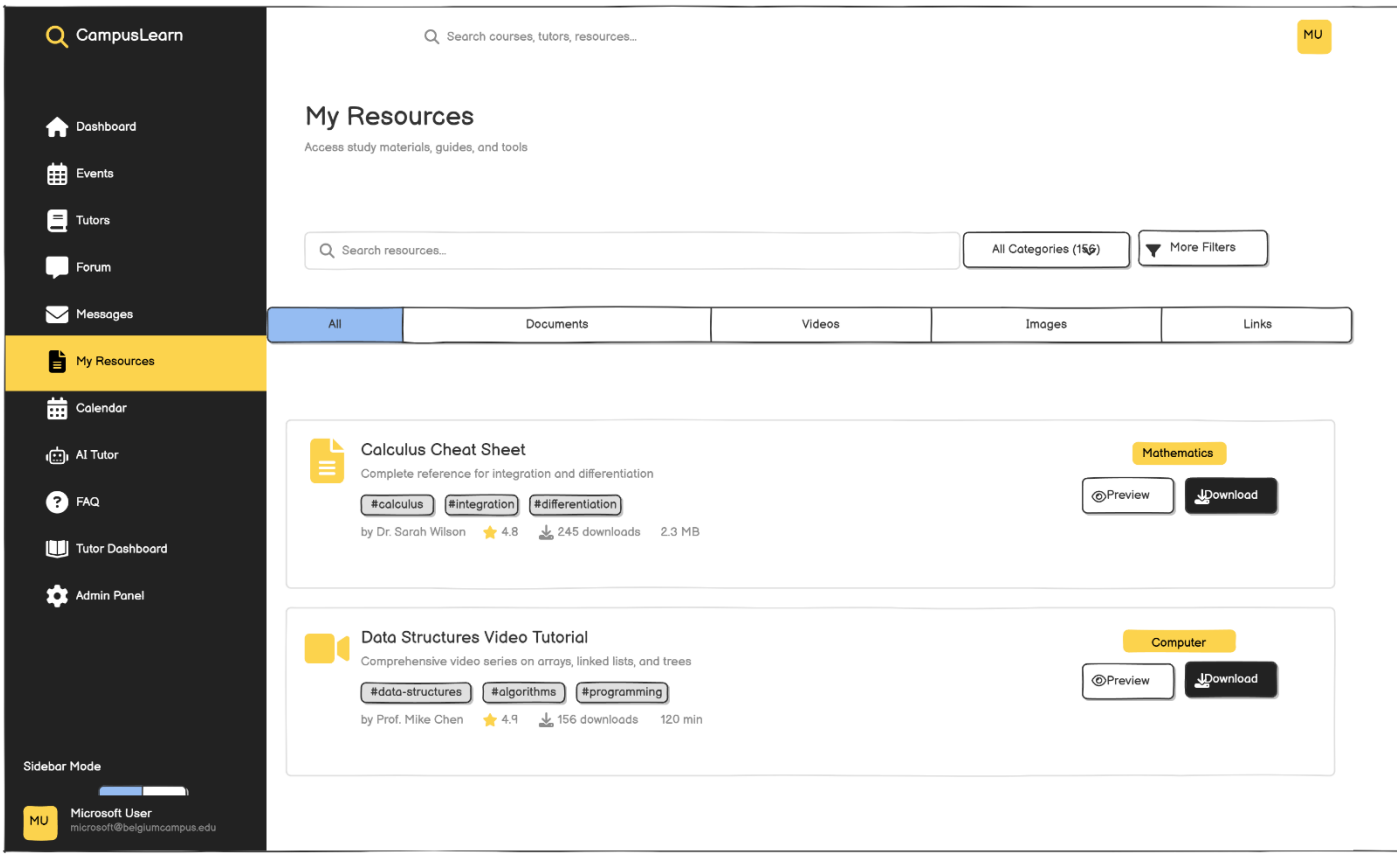
4. Forum

- **Layout Choice:** Threaded layout with clear separation between topics and responses.
- **Reasoning:** Familiar forum-style design makes it intuitive for users. Grouping replies under main topics improves readability and knowledge sharing.



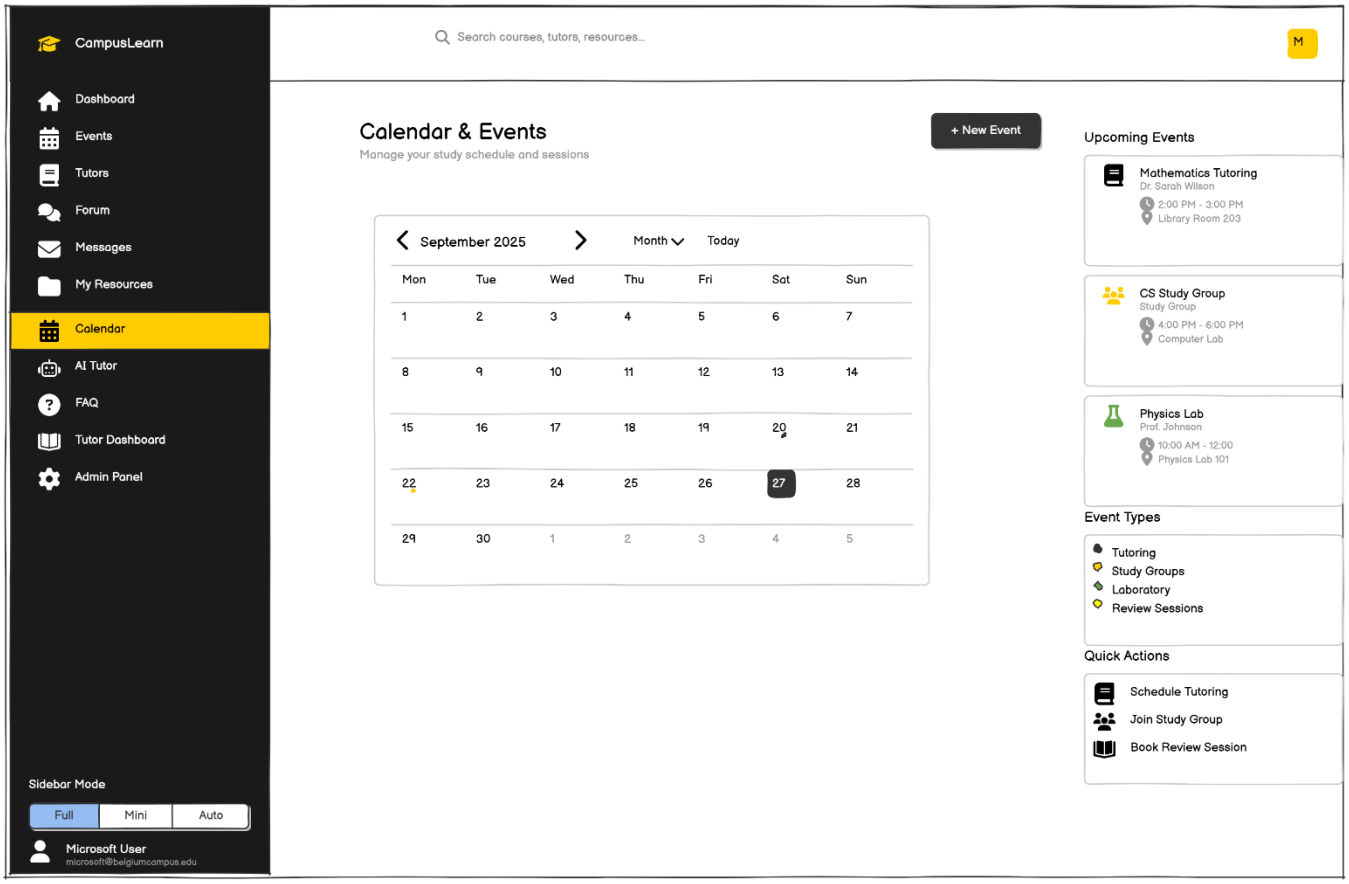
5. Messages

- **Layout Choice:** Sidebar for conversation list and main area for chat thread.
- **Reasoning:** Mimics modern messaging apps (WhatsApp, Messenger). This ensures students immediately recognize how to navigate between chats.



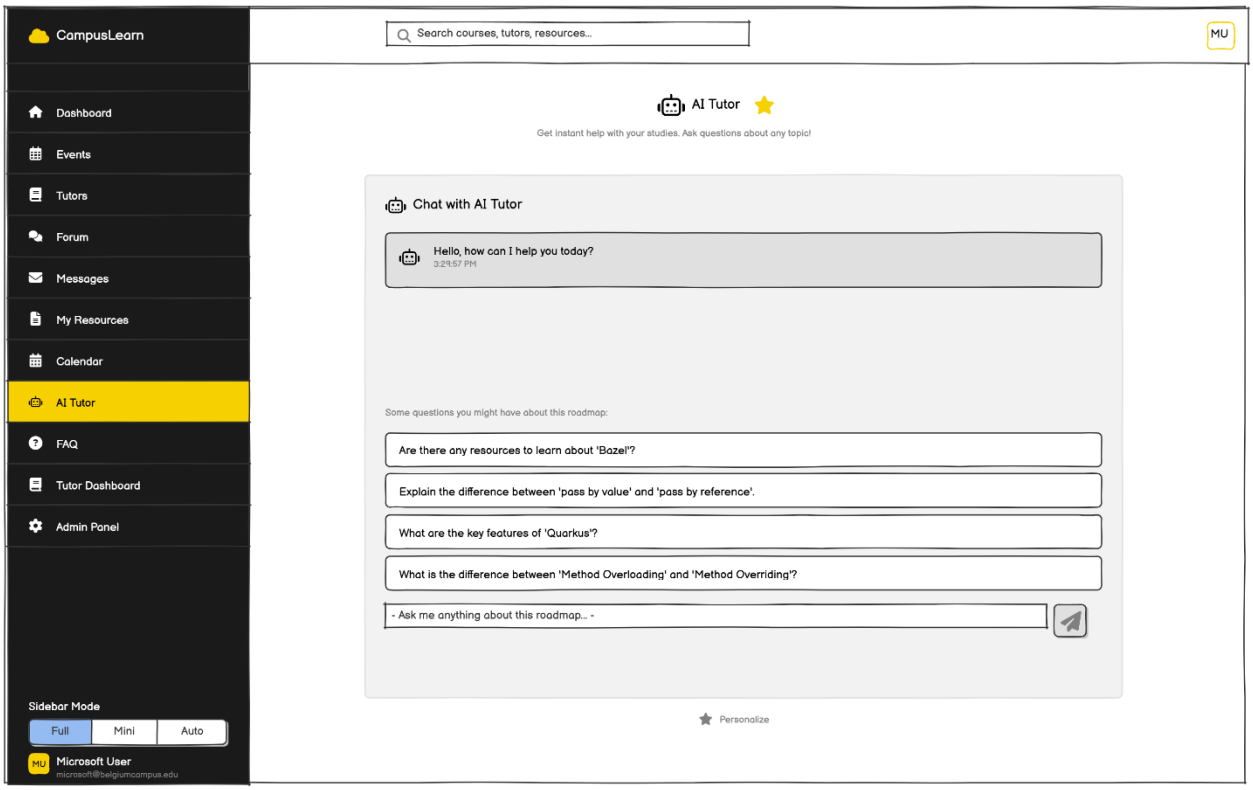
6. My Resources

- **Layout Choice:** Grid or list format for uploaded/stored files with filters for type (PDFs, notes, links).
- **Reasoning:** Organizes learning material efficiently and makes retrieval quick. Filters help students manage growing resource libraries.



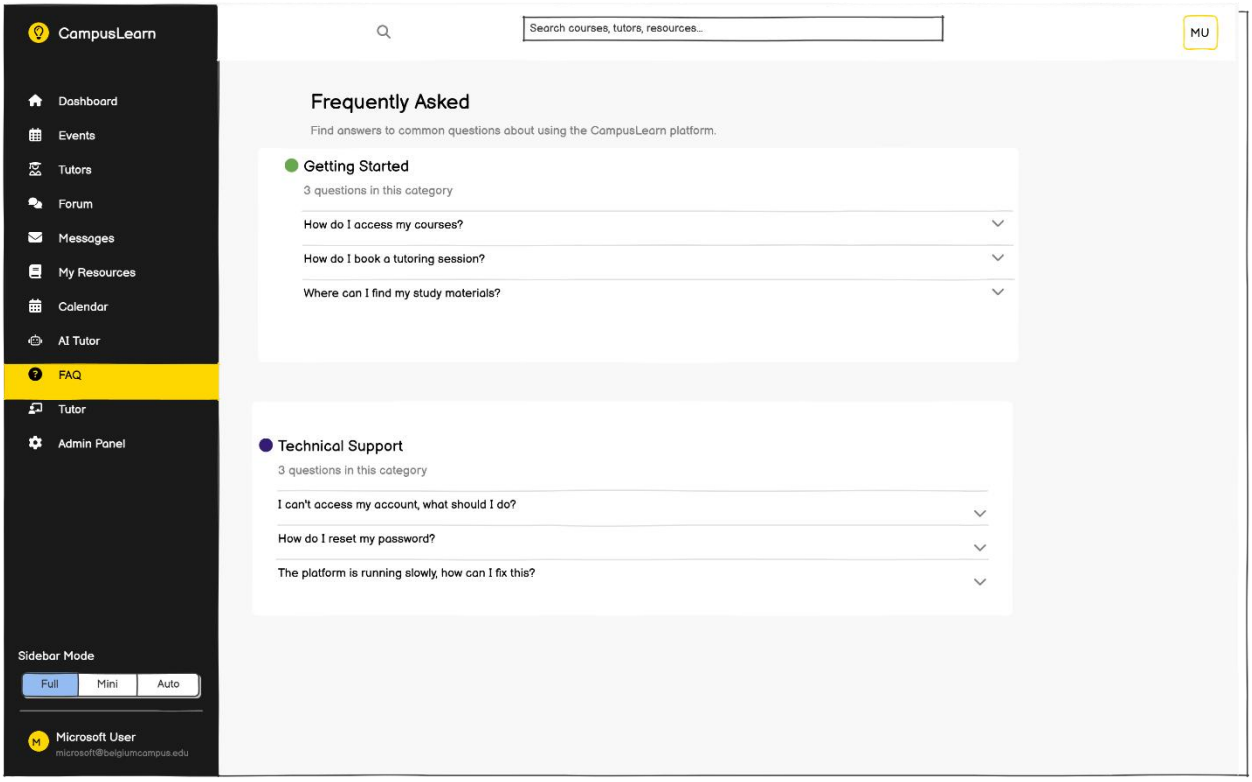
7. Calendar

- **Layout Choice:** Traditional month/week/day view with events marked and clickable for details.
- **Reasoning:** Students can visualize deadlines and sessions in context. Familiar calendar layouts reduce the learning curve.



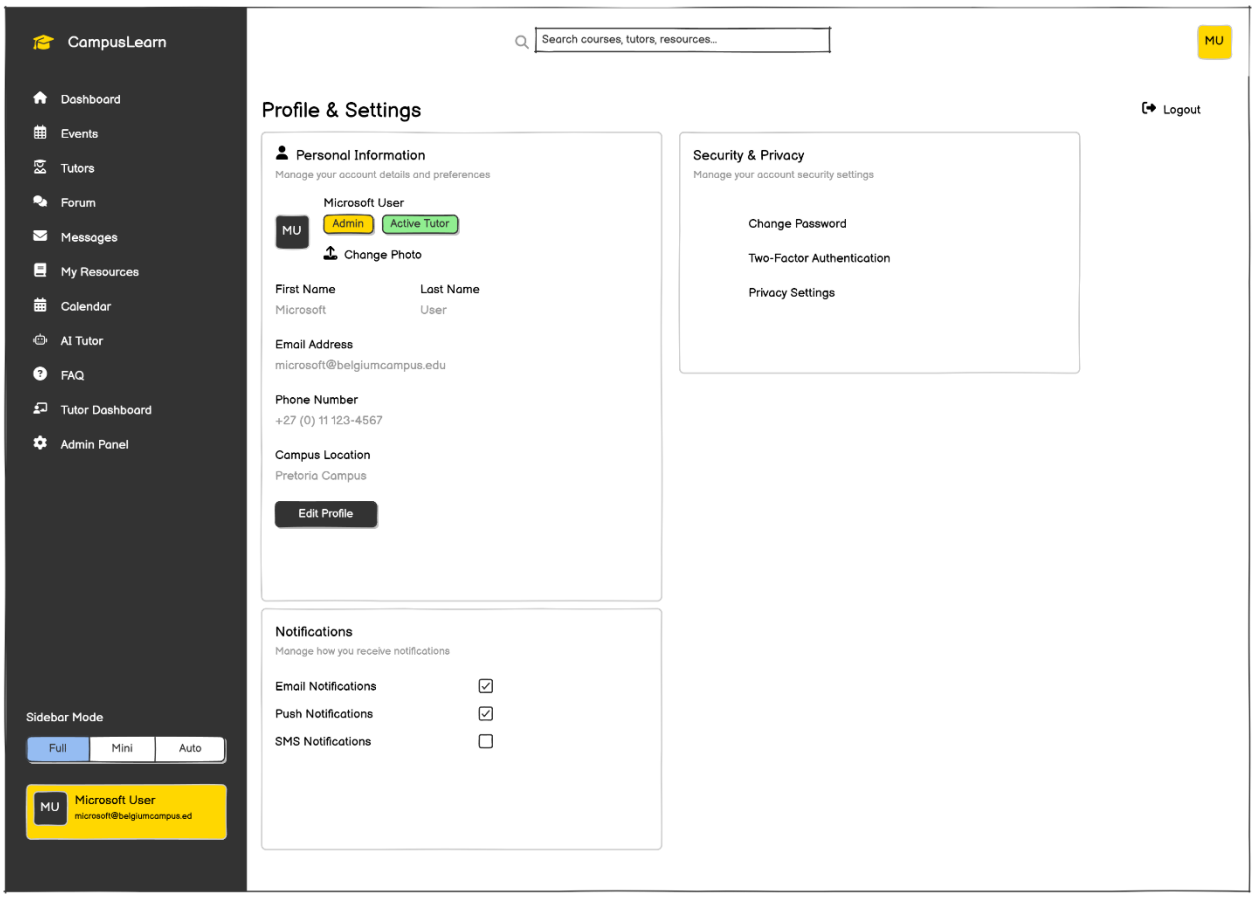
8. AI Tutor

- **Layout Choice:** Chat interface with input field at the bottom and conversation log above.
- **Reasoning:** Conversational flow feels natural and mirrors widely used AI assistants/chatbots, making interaction intuitive.



9. FAQ

- **Layout Choice:** Accordion or collapsible sections grouped by topic.
- **Reasoning:** Keeps information compact and avoids overwhelming students. Expanding only what's relevant improves efficiency.



10. Profile & Settings

- **Layout Choice:** Two-column or tabbed structure with personal details on one side and account/security/preferences on the other.
- **Reasoning:** Separates identity information from platform settings. This reduces clutter and makes navigation more logical.

Responsive Design

The platform has been developed with a **responsive design strategy** to ensure usability across a variety of devices, including desktops, tablets, and smartphones. Responsive design allows the interface to adapt dynamically to different screen sizes, orientations, and input methods, thereby providing a consistent yet context-sensitive experience. This implementation draws upon the principles of **mobile-first design** (Wroblewski, 2011), **progressive enhancement**, and **progressive disclosure**, ensuring that essential features remain accessible on small devices while larger screens are enriched with additional functionality.

1. TailwindCSS and Media Queries

The system employs **TailwindCSS responsive utilities** alongside custom media queries to control typography, spacing, and layout. For example, typography scales down from text-3xl on desktop to text-xl on mobile to prevent text overflow, while padding is reduced (px-6 to px-4) to optimise content within smaller viewports. This adheres to recommended **responsive typography practices** for readability and hierarchy (Marcotte, 2010).

2. Device-Aware Layout with React

The platform uses a **custom hook (useIsMobile)** to detect device size and adapt component rendering accordingly. This enables interface elements to behave differently depending on the context:

- On **desktop**, the sidebar persists with multiple display modes (expanded, collapsed, hover), supporting multitasking and quick access to features.
- On **mobile**, the sidebar transforms into a **temporary overlay drawer**, accessible via a hamburger menu. This design aligns with **space-efficient navigation patterns** and prevents obstruction of primary content.

3. Navigation and Sidebar Responsiveness

The **sidebar** demonstrates contextual adaptability:

- **Desktop view:** Supports user-controlled modes, allowing flexibility between full and compact navigation.
- **Mobile view:** Appears as an overlay with dismissal functionality (via a darkened background layer), reducing distractions while preserving accessibility.

The **top navigation bar** also adapts:

- **Desktop:** Displays a full-width search bar, notifications, and user profile options simultaneously.
- **Mobile:** Collapses the search bar into a simplified placeholder and introduces a menu button for navigation access, reducing cognitive load while retaining core functions.

4. Content Area Adaptation

The main content dynamically adjusts margins and padding depending on sidebar state and screen size. On desktop, reserved margins (ml-sidebar-expanded, ml-sidebar-collapsed) maintain alignment with the sidebar, whereas on mobile, the content always spans the full width (ml-0). This reflects **flexible grid alignment principles**, ensuring consistency and balance across devices.

5. Contextual Page-Level Adaptations

Several key sections of the platform further illustrate responsive behaviour:

- **Dashboard:** Shifts from multi-column widget display on desktop to vertically stacked cards on mobile, prioritising essential information such as events and messages.
- **Messages:** On desktop, a dual-pane interface allows simultaneous browsing of conversations and active chats. On mobile, the interface transitions into separate screens (conversation list and chat view), emphasising single-task focus.
- **Calendar:** Provides a monthly grid on desktop for planning, while on mobile, it simplifies into a scrollable weekly or daily list to enhance clarity.

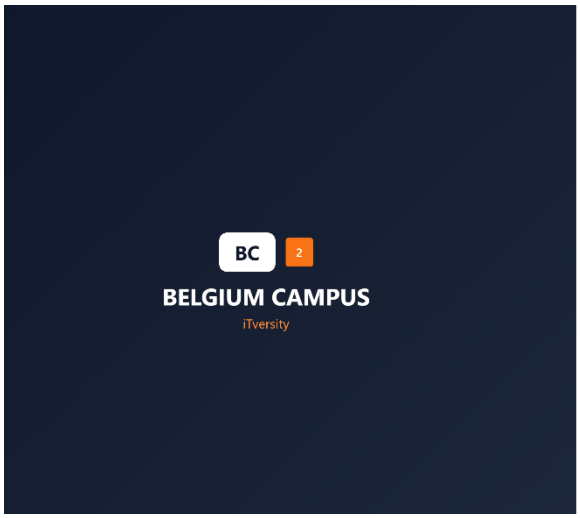
6. Design Principles in Practice

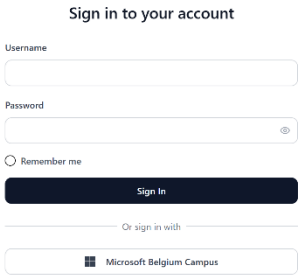
This implementation reflects well-established academic principles:

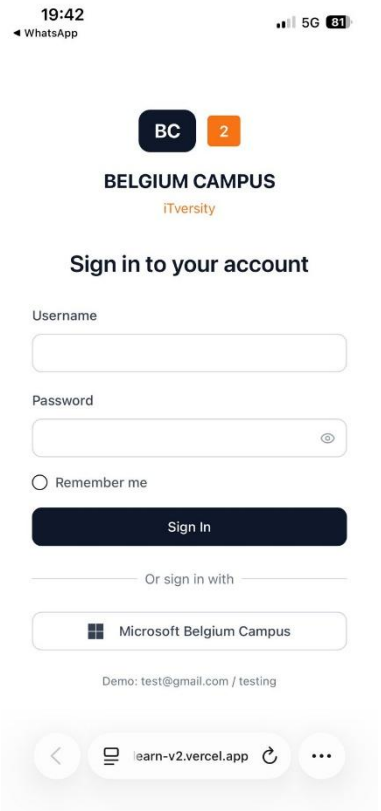
- **Mobile-first design:** Ensures usability on constrained devices before scaling up for larger screens (Wroblewski, 2011).
- **Progressive enhancement:** Adds complexity only where device capabilities permit (Marcotte, 2010).
- **Progressive disclosure:** Reduces cognitive load by hiding secondary features until they are needed (Norman, 2013).
- **Fitts's Law:** Ensures that mobile tap targets, such as buttons and inputs, are sufficiently large for efficient touch interactions.

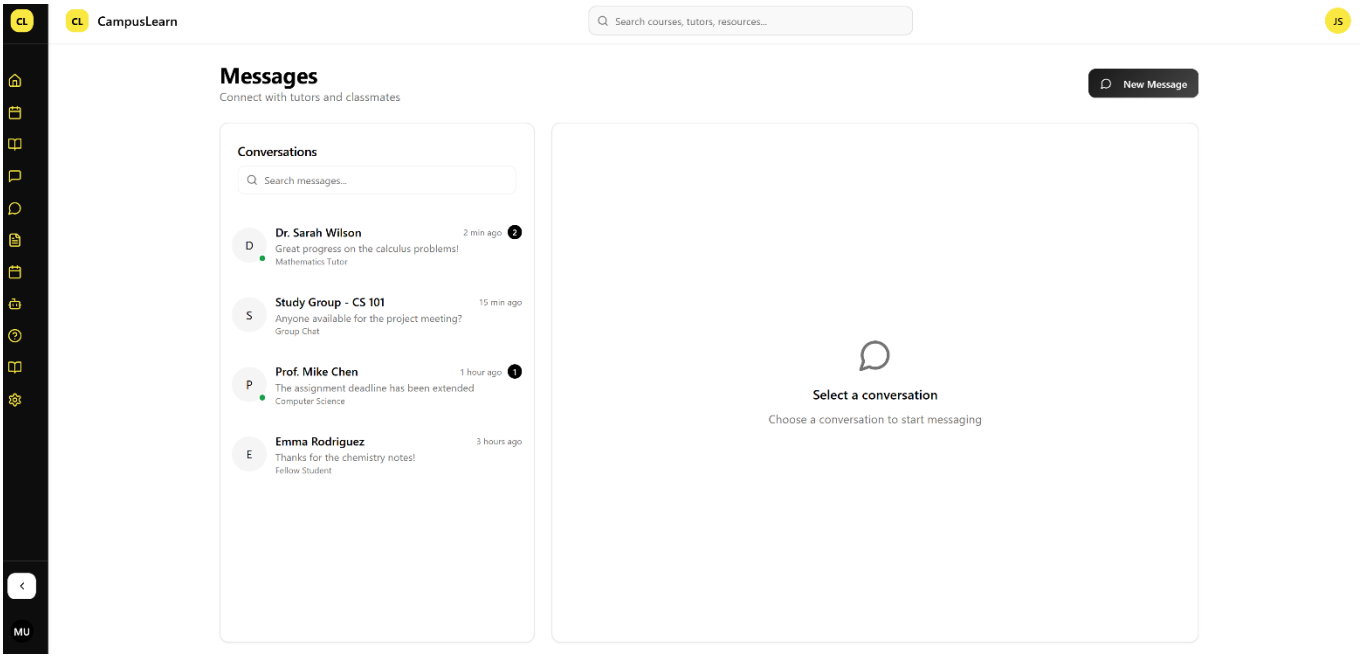
Conclusion

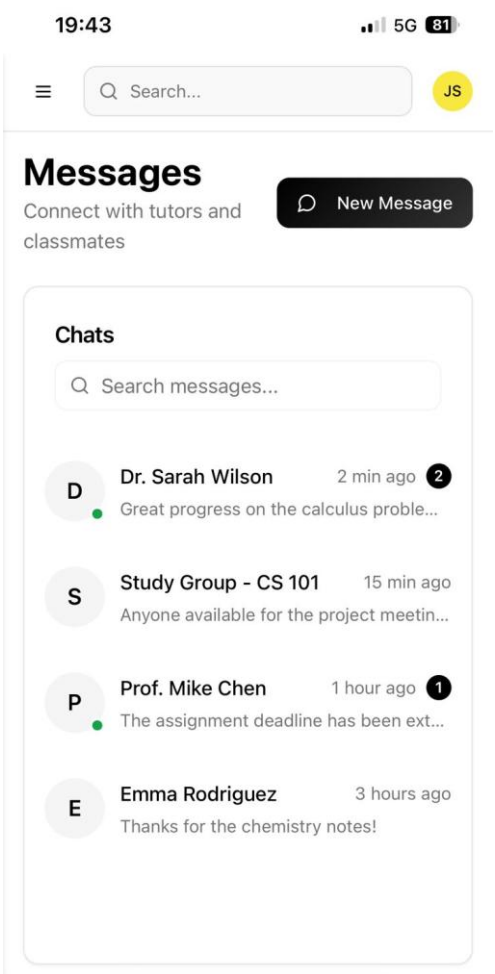
By combining **TailwindCSS responsive utilities, React device detection, and adaptive navigation patterns**, the platform delivers a coherent user experience across devices. The approach ensures that learners and tutors can interact effectively in both mobile and desktop contexts, with layouts optimised for **readability, efficiency, and task focus**.








CL
CampusLearn
Search courses, tutors, resources...
JS
Messages
Connect with tutors and classmates
New Message
Conversations
Search messages...
D
Dr. Sarah Wilson
2 min ago
2
Great progress on the calculus problems!
Mathematics Tutor
S
Study Group - CS 101
15 min ago
Anyone available for the project meeting?
Group Chat
P
Prof. Mike Chen
1 hour ago
1
The assignment deadline has been extended
Computer Science
E
Emma Rodriguez
3 hours ago
Thanks for the chemistry notes!
Fellow Student
Select a conversation
Choose a conversation to start messaging
MU


19:43
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Connect with tutors and classmates
New Message
Chats
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Dr. Sarah Wilson
2 min ago
2
Great progress on the calculus proble...
S
Study Group - CS 101
15 min ago
Anyone available for the project meetin...
P
Prof. Mike Chen
1 hour ago
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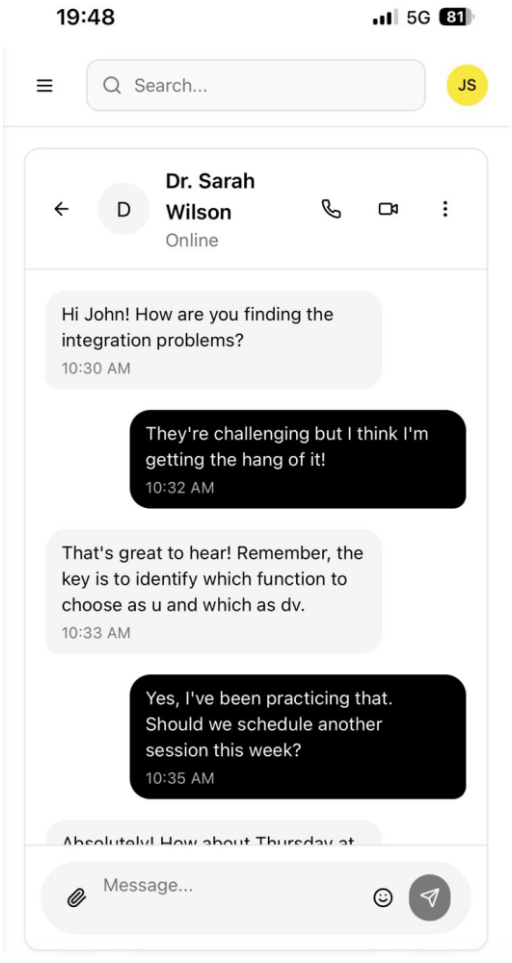
The assignment deadline has been ext...
E
Emma Rodriguez
3 hours ago
Thanks for the chemistry notes!


19:48
5G
81
Search...
JS
D
Dr. Sarah Wilson
Online
Hi John! How are you finding the integration problems?
10:30 AM
They're challenging but I think I'm getting the hang of it!
10:32 AM
That's great to hear! Remember, the key is to identify which function to choose as u and which as dv.
10:33 AM
Yes, I've been practicing that. Should we schedule another session this week?
10:35 AM
Message...

References

- Marcotte, E., 2010. *Responsive Web Design*. A List Apart. [online] Available at: https://alistapart.com/article/responsive-web-design/ [Accessed 29 September 2025].
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