

# Collaborative Platform for University Student Organizations

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**CASE QUEST 2024**

Team 404 Not Found





## P R O M P T

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**Create a collaborative platform for MISSO, CougarCS, CSGirls, and CougarAI**

Design a platform to streamline event management, resource sharing between members and the organizations, and communication, fostering a more connected and efficient community for both organizations

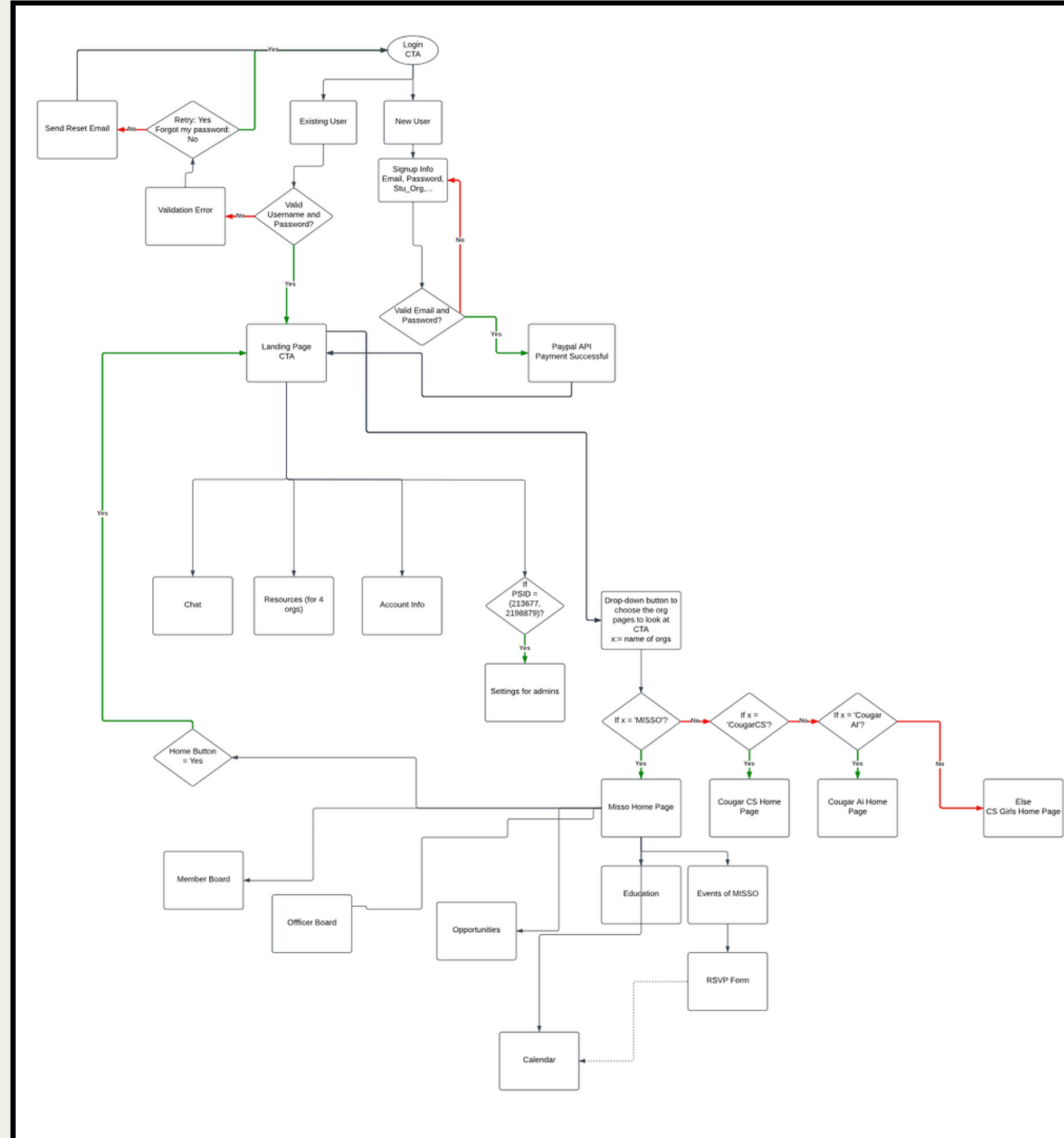
# PROJECT DELIVERABLES

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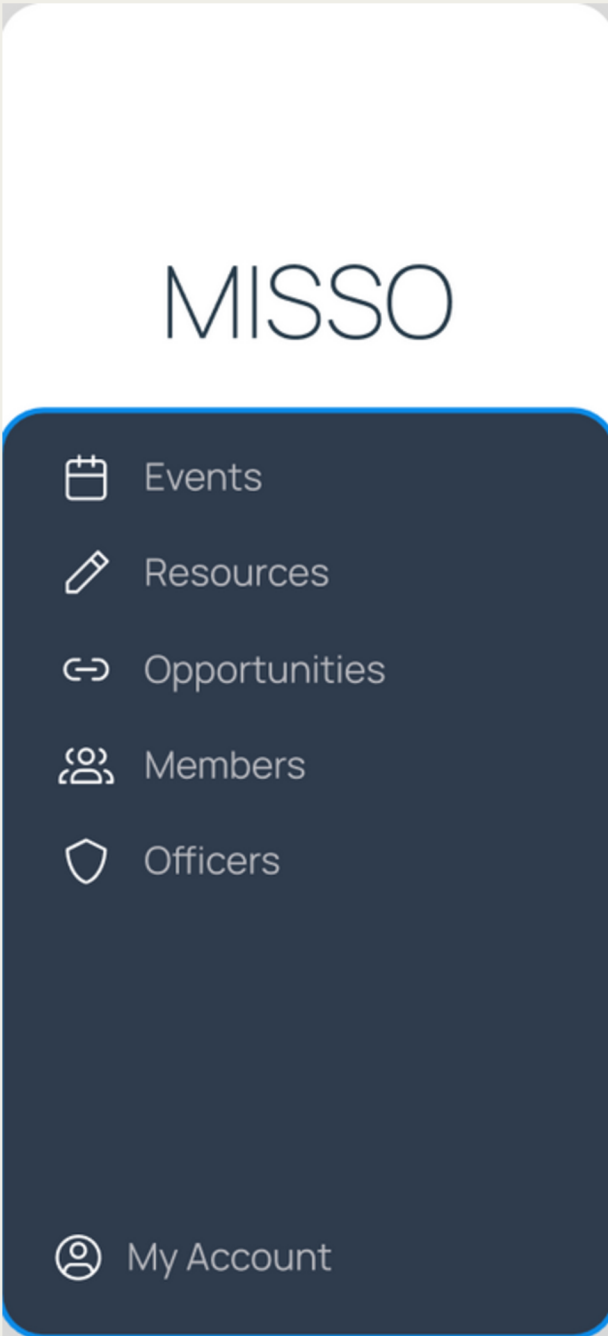
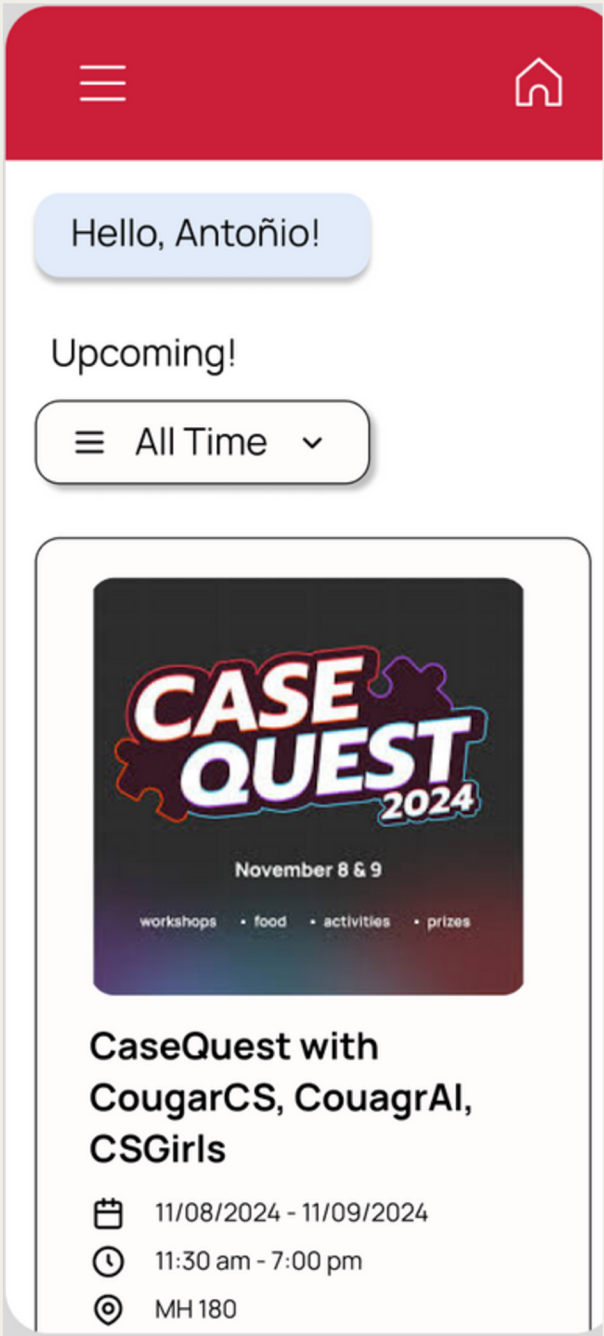
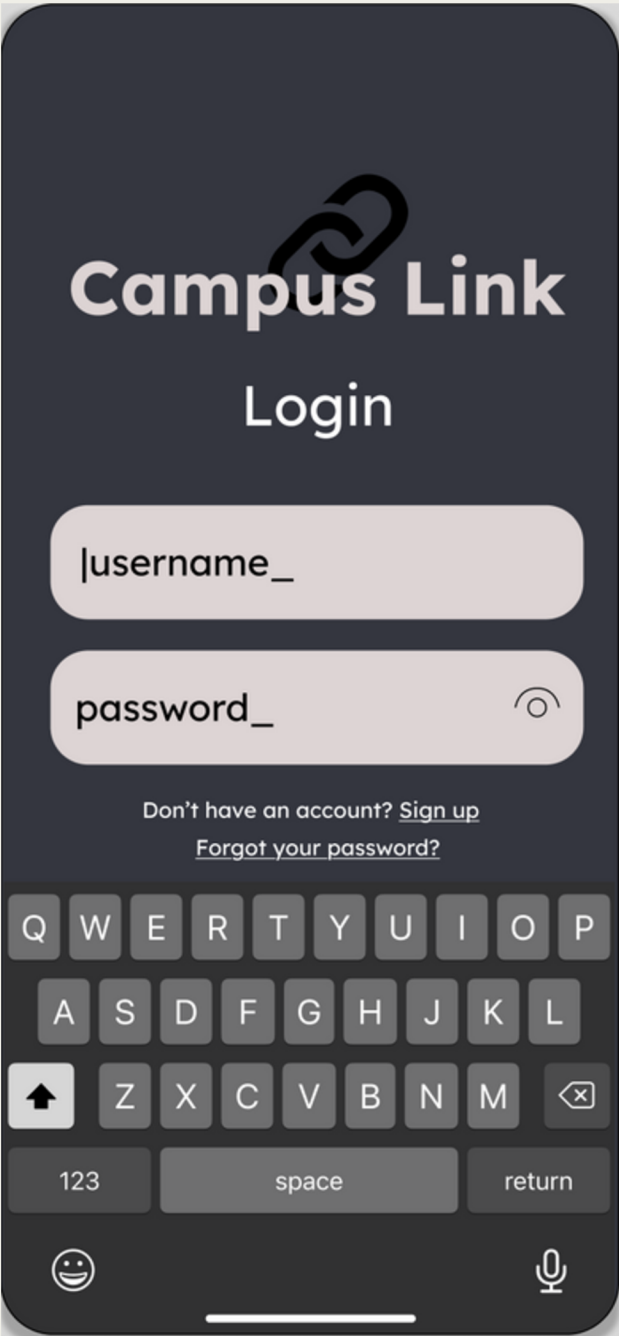
1. User Interface Designs:
2. System Design Document:
3. Technical Architecture Document:



# APP FLOWCHART DESIGN



# USER INTERFACE DESIGNS:



[Link to Figma Example](#)



# TECHNICAL ARCHITURE

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## Front End: React.js

- React.js creates the user interface where users interact with the platform. This includes browsing events, accessing resources, and joining discussions.
- How It Works: When users take an action React sends a request to the server to handle it.



## Back End: Node.js with Express.js

- Node.js with Express.js is the “brain” of the platform. It processes requests from React, performs logic (e.g., checking if a user is allowed to create an event), and communicates with the database.
- How It Works: When React sends a request (e.g., to create an event), the Node.js server checks the request, processes it, and sends back a response. It also ensures users are logged in and authorized using secure tokens (JWTs).



## Database: MongoDB

- MongoDB is where all the data is stored — user information, event details, chat messages, and uploaded resources.
- How It Works: When the server needs data (e.g., event details), it retrieves it from MongoDB and sends it to React. It also saves new data, like a user’s RSVP, to the database.



## API Integration: Paypal API

- The PayPal API enables secure payment processing within the platform for membership fees. When members opt to pay their fees, PayPal handles the transaction, providing users with a safe and familiar payment method. The integration also tracks payment statuses, which are reflected in the member’s account for administrative and tracking purposes.





Thank you!

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