

BIT MAILER

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ProblemStatement: BIT MAILER

TechnicalComponents

Tech stack

Frontend	React (JS libraries for building user interfaces)
Backend	Node.Js with Express.Js
Database	MongoDB
API	OpenAPI
Deployment	None

TIMELINE OF THE PROJECT:

STAGES	STAGE DESCRIPTION	DEADLINE	STATUS
STAGE1	Planning and Requirement Gathering		
STAGE2	Design and Prototyping		Not Started
STAGE3	Database Design		Not Started
STAGE4	Backend Development		Not Started
STAGE5	Integration and Testing		Not Started

1. PROBLEM STATEMENT:

The decentralized structure of email correspondence at academic establishments gives rise to several obstacles, including:

- **Inconsistent messaging:** Emails are sent out separately by various administrative departments and units, which results in information redundancy and inconsistent messaging.
- **Schedule conflicts:** Instructors and students get several emails that overlap in terms of events and schedules, which causes confusion and lost chances.
- **Fragmented communication:** When emails pile up, crucial updates and announcements sometimes get lost, making it hard for receivers to stay up to date and involved.
- **Administrative burden:** For staff and professors, handling email distribution lists, settling disputes, and guaranteeing the prompt transmission of important information creates a heavy administrative load.

2. PROJECT FLOW:

1. Purpose

The primary purpose of this project is to streamline and centralize email communication within the educational institution to ensure consistent messaging, minimize schedule conflicts, reduce fragmented communication, and alleviate administrative burden on staff and faculty.

2. Scope

This project encompasses the design, development, and implementation of a centralized email communication system that integrates with existing institutional frameworks. It will include the following components:

- Centralized email management platform
- Unified event scheduling and announcement system
- Automated email distribution lists
- Advanced filtering and prioritization of emails

3. Business Context

The current decentralized email system leads to several operational inefficiencies, including inconsistent messaging, overlapping schedules, fragmented communication, and a high administrative burden. By centralizing email communication, the institution aims to improve information dissemination, enhance engagement among students and faculty, and streamline administrative processes.

4. Considerations

- **Integration with existing systems:** Ensure compatibility with current institutional IT infrastructure and tools.
- **Data privacy and security:** Comply with relevant regulations and protect sensitive information.
- **User adaptability:** Provide training and support to ensure smooth transition to the new system.

- **Scalability:** Design the system to accommodate future growth and changes in institutional needs.

5. Dependencies

- Availability of reliable IT infrastructure to support the new system.
- Engagement and support from all departments and administrative units.
- Adequate funding to cover development, implementation, and ongoing maintenance costs.
- Availability of resources to train users on the new system.

6. User Personas

- **Student:** Needs timely and relevant information about classes, events, and important announcements without being overwhelmed by redundant emails.
- **Faculty Member:** Requires a streamlined process to communicate with students and colleagues, manage schedules, and receive important updates.
- **Administrator:** Manages email distribution lists, coordinates announcements, and ensures timely and accurate information dissemination.
- **IT Staff:** Supports the technical implementation and maintenance of the centralized communication system.

7. User Stories

- As a student, I want to receive consolidated emails with all relevant information for the week, so I don't miss any important updates or events.
- As a faculty member, I want to avoid duplicate emails and schedule conflicts, so I can manage my time effectively and engage with students.
- As an administrator, I want to automate the process of managing email distribution lists to reduce my workload and ensure accuracy.

8. Functional Requirements

- **Centralized Email Platform:** Develop a platform that consolidates email communication from various departments and units.
- **Unified Scheduling System:** Implement a system that integrates with the institution's calendar to avoid overlapping events and schedules.
- **Automated Distribution Lists:** Create automated and dynamic email distribution lists based on predefined criteria such as department, class, and role.
- **Filtering and Prioritization:** Include advanced filtering options to prioritize emails based on urgency and relevance to the recipient.
- **User-Friendly Interface:** Ensure the platform has an intuitive interface for easy navigation and use by all user personas.
- **Reporting and Analytics:** Provide tools for tracking email engagement, delivery success, and user feedback to continuously improve the communication strategy.
- **Data Security:** Implement robust security measures to protect email data and comply with privacy regulations.

FLOWCHART

