**Smart Education Events System (SEES) Project Report**

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**Project Name:** Smart Education Events System (SEES)  
**Date:** 2025-02-04  
**Team Members:**

* Georges Ghazal- 40231026- Full-Stack developer-Project Manager: chose technologies used
* Peter Samaha - 40238955 – Back-End developer-Database administrator : project definition
* Samer Hasna - 40234608 – Front-End developer-AI integration specialist : Context diagram
* Boudy Joe Samaha - 40238965 – Full-stack developer- Scrum Master : UML diagram

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**1. Project Definition**

**Objectives**

* Develop a smart system to efficiently manage educational events.
* Improve engagement between event organizers and attendees.
* Automate scheduling, notifications, and data analytics for better event management.
* Enhance networking opportunities and user experience.

**Methodology and Member Responsibilities**

* **Project Manager:** Oversees development, ensures deadlines are met.
* **Frontend Developer:** Implements the user interface using React and Node.js.
* **Backend Developer:** Develops API endpoints and manages MongoDB database.
* **AI Integration Specialist:** Implements AI chat assistance for user interaction.
* **Database Administrator:** Manages data structure and queries.

**Elements and Deliverables of the Project**

* Fully functional event management system with role-based access.
* User-friendly frontend developed with React and Node.js.
* Secure backend with Express.js and MongoDB.
* AI chat assistance for user support.
* Email notifications for event updates and reminders.
* Context diagram and domain model to represent system architecture.

**2. Problem Definition**

**Problem Statement and Emergence**

Event management for educational institutions often lacks automation, making it difficult to coordinate schedules, manage attendees, and gather feedback effectively. Existing solutions are either expensive or lack integration with educational needs.

**Proposed Solution and Its Advantages**

* **Automation:** Reduces manual effort in scheduling and communication.
* **AI Chat Assistance:** Enhances user interaction and quick resolution of queries.
* **Seamless Email Notifications:** Keeps attendees informed about event updates.
* **Data-Driven Insights:** Analytics and reporting features improve future event planning.

**3. Technology Used**

**Tools for Collaboration, Monitoring, Design, and Coding**

* **Frontend:** React, Node.js
* **Backend:** Express.js, MongoDB
* **Collaboration & Version Control:** GitHub
* **Project Management:** GitHub issues
* **Design:** Figma
* **AI Integration:** OpenAI API for chatbot assistance
* **Email Service:** Twilio SendGrid

**4. Context Diagram**

**5. Domain Model**A diagram of a company

Description automatically generated

**6. Conclusion**

The Smart Education Events System (SEES) is designed to modernize and simplify the process of organizing educational events. By integrating automation, AI chat assistance, and real-time analytics, SEES enhances the experience for organizers and attendees alike. The implementation of email notifications and an intuitive user interface ensures smooth communication and accessibility. This project lays the foundation for an efficient, scalable, and smart event management solution.