Problem Statement and Goals
Software Engineering

Team 4, EventHub
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Table 1: Revision History

Date	Developer(s)	Change
09-18-2025	Virochaan Ravichandran Gowri	First Rough Draft
09-18-2025	Rayyan Suhail	First Rough Draft
Date2	Name(s)	Description of changes
...	...	...

1 Problem Statement

[You should check your problem statement with the problem statement checklist. —SS]

[You can change the section headings, as long as you include the required information. —SS]

1.1 Problem

The Mcmaster Engineering Society (MES) hosts various large events throughout the year such as the Fireball Formal, Graduation Formal, and Pub Nights. Currently, the processes of registration, waiver collection, ticketing, and check-in are managed manually or across multiple platforms, resulting in unnecessary administrative burden for student organizers and a tough process for attendees. MES also makes surveys/forms to gather feedback from events, to aid registration processes and manages nationwide surveys gathering information on the experiences of undergratuate engineering students. These forms can often get

very complex due to various branches and conditionals attempting to gain information from certain demographics or categories. Due to this complex nature the survey response rate is very low as many are put of from answering. Furthermore, there is very little data analytics that can be done from the current implementation making it difficult to actually gain information from both surveys and event registrations to improve future events and student experience. This project aims to develop a solution which can centralize the activities of the MES within a single platform with functionality for both admins and users.

1.2 Inputs and Outputs

[Characterize the problem in terms of "high level" inputs and outputs. Use abstraction so that you can avoid details. —SS] The inputs and outputs have been split into End Users and Admins since the way they interact with the app is very different.
Inputs:

- **End Users:** User Info, Form Data, Event Details, Waiver Details.

- **Admins:** Event Information, Form Categories and Sections

Outputs:

- **End Users:** Notifications, Confirmations, Event Media

- **Admins:** Admin Analytics, Downloadable Reports, Attendee Information.

1.3 Stakeholders

The main stakeholders currently are:

- **Luke Schuurman**: The project supervisor.
  Luke is a member of the McMaster Engineering Society and has first hand experience planning and hosting events. He will halep in integrating the project with current MES systems and provide us with feedback for improvements.

- **MES Executives and Council Members**
  Students who will be utilizing the new platform to create events and surveys and use the analytics to help plan for future events.

- **McMaster Engineering Students**
  Students who will be using the platform to register for events and answer surveys.

1.4 Environment

[Hardware and Software Environment —SS] The Software Environment will be compatible will all major browsers and will work with all computers that are connected to the internet. The mobile components will work with both IOS and Android environments. For development we will be using Github for CI/CD and for version control. We will be primarily using Visual Studio Code for our development environment and Figma for UI Design and Mockups.

2 Goals

Our primary goal is the development of a platform that can aid in the creation and registration of events and host forms and surveys for feedback and future improvement. It will contain to main components:

1. **Web App:**

   - **Admin Dashboard**: Should allow for the admins to create events and forms. View analytics and perform rudimentary data analysis.
   - **User Interface**: Front end for web users to interact with the platform and answer forms and signup for events.

2. **Mobile App:**
   Allow for push notifications and mobile users to use the app.

3 Stretch Goals

enumerate)**Test Title...**

4 Extras

[For CAS 741: State whether the project is a research project. This designation, with the approval (or request) of the instructor, can be modified over the course of the term. —SS]

[For SE Capstone: List your extras. Potential extras include usability testing, code walkthroughs, user documentation, formal proof, GenderMag personas, Design Thinking, etc. (The full list is on the course outline and in Lecture 02.) Normally the number of extras will be two. Approval of the extras will be part of the discussion with the instructor for approving the project. The extras, with the approval (or request) of the instructor, can be modified over the course of the term. —SS]

1. **Code Walkthrough Reports:** Code walkthrough reports will allow us to better explain complex pieces of code especially in the creation of the form builder.

2. **Wireframe Report:** Wire frame reports will allow us to showcase the design principles and considerations taken into account when creating the User Interface.

Appendix — Reflection

The purpose of reflection questions is to give you a chance to assess your own learning and that of your group as a whole, and to find ways to improve in the future. Reflection is an important part of the learning process. Reflection is also an essential component of a successful software development process.

Reflections are most interesting and useful when they're honest, even if the stories they tell are imperfect. You will be marked based on your depth of thought and analysis, and not based on the content of the reflections themselves. Thus, for full marks we encourage you to answer openly and honestly and to avoid simply writing "what you think the evaluator wants to hear."

Please answer the following questions. Some questions can be answered on the team level, but where appropriate, each team member should write their own response:

1. What went well while writing this deliverable?

2. What pain points did you experience during this deliverable, and how did you resolve them?

3. How did you and your team adjust the scope of your goals to ensure they are suitable for a Capstone project (not overly ambitious but also of appropriate complexity for a senior design project)?