Problem Statement and Goals
MES-ERP

Team #26, Ethical Pals
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Table 1: Revision History

Date	Developer(s)	Change
Sep 24th, 2024	Omar	Problem Statment and all subsections
Date2	Name(s)	Description of changes
...	...	...

1 Problem Statement

1.1 Problem Statement

The McMaster Engineering Society is looking to develop a finance and accounting system that will streamline the financial operations of 60 student groups. Currently, the financial operations involve inefficient, fragmented processes that make it difficult to track budgets, manage expenses, and process reimbursement requests. The platform created will intake reimbursement receipts to help track budgets, manage expense reporting, and streamline reimbursement requests in an orderly fashion. By offering custom budget creation, live ledger tracking, modular receipt submission, and multiple approval levels, the system will provide a single, accessible platform by outputting reimbursement requests and responses for all financial matters.

1.2 Problem

The main problem for the MES (McMaster Engineering Society) is the large throughput of the reimbursement reuqests and the lack of organization of such

requests. This makes them lose track of the requests and the large wait times due to the large throughput can lose them money.

1.3 Inputs and Outputs

- Inputs: Reimbursement receipts provided to the McMaster Engineering Society (MES).

- Outputs: Requests for all financial matters and responses back to the student groups.

1.4 Stakeholders

The stakeholders for this project would be the MES and the student groups that have reimbursement requests.

1.5 Environment

We intend for our solution to be usable on all platforms (Windows, Linux, and Mac), but not on mobile devices; it will be hosted on a laptop given by the MES. The laptop hosting the information should be a more modern laptop with at least 4 GB of RAM, a modern CPU, and access to the internet. The frontend of the program will be programmed in React, with the backend being in NextJS.

2 Goals

3 Stretch Goals

4 Challenge Level and Extras

[State your expected challenge level (advanced, general or basic). The challenge can come through the required domain knowledge, the implementation or something else. Usually the greater the novelty of a project the greater its challenge level. You should include your rationale for the selected level. Approval of the level will be part of the discussion with the instructor for approving the project. The challenge level, with the approval (or request) of the instructor, can be modified over the course of the term. —SS]

[Teams may wish to include extras as either potential bonus grades, or to make up for a less advanced challenge level. Potential extras include usability testing, code walkthroughs, user documentation, formal proof, GenderMag personas, Design Thinking, etc. Normally the maximum 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]

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)?

Omar, muhammao, 400325041

1. What went well for this deliverable were the team meetings we had throughout the project. These meetings helped me understand what was needed for the project as a whole and for the deliverable itself. The assistance provided by my teammates also helped me overcome issues with Git, which smoothed out the process.

2. The pain points for this deliverable were the issues I encountered while installing LaTeX on VSCode. I faced some errors with my environment settings, and setting it up took longer than I would have liked. Another challenge was finding the correct information from the lectures that was needed for each section of work (environment). However, once I found the relevant sections, the work was completed smoothly.

3. Answered as a team below

Answered as a Team

1. Answered Individually

2. Answered Individually

3. We adjusted our goals by ensuring that the scope of the project was not too large. The MES covers a broad range of tasks that the project could have included, but we took into account everyone's schedules and what our project supervisor wanted to achieve with our capstone project. Using this information, we accepted a level of work that we found suitable for our team.