Problem Statement and Goals ProgName

Team #, Team Name Student 1 name and macid Student 2 name and macid Student 3 name and macid Student 4 name and macid

Table 1: Revision History

Date	$\mathbf{Developer}(\mathbf{s})$	Change
	Name(s) Name(s)	Description of changes Description of changes
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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

Latex is a common tool used by both students and researchers for writing reports and documents in an academic setting. Additionally, most of these academic works written in latex require a collaborative effort between multiple parties. This then introduces the need to be able to see what the other parties have written in real time for the sake of editing and revising the work, as well as a need for version control to be able to track contributions between the parties in a safe manner. However, there is no current solution in the market to deal with both these issues at the same time in an effectively integrated environment.

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]

1.3 Stakeholders

1.4 Environment

[Hardware and software —SS]

2 Goals

The goals for the project are as follows:

- 1. Users should be able to invite and work with other users on a project
- 2. Users should be able to see live edits made to the document by other users similarly to google docs
- 3. Users should have the ability to make commits to the github repo using the changes they have made to the document
- 4. Users should be able to log into the web application using their github account
- 5. Users should be able to communicate with eachother on the web app

3 Stretch Goals

- 1. The app should have the ability to import microsoft word document and automatically convert it to a latex document
- 2. The app should support the ability to copy and paste images into latex and simplify the process
- 3. The app should make it simpler to add tables into into latex
- 4. The app should include a spell checker to help the user avoid spelling mistakes