Problem Statement and Goals
ProgName

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

Table 1: Revision History

Date	Developer(s)	Change
Date1	Name(s)	Description of changes
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

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 environment —SS]

2 Goals

2.1 High Data Accuracy

Description: The system should have high classification accuracy for the object reported in the images.

Rationale: The core problem this system must solve is extracting useful information from the provided images. One key metric to determine the utility of the information found, is the classification accuracy of objects identified in the images. If the system is not able to determine what is contained in an image, it will not be useful to stakeholders.

2.2 Ease of use

Description: The system should be very easy for stakeholders to use. There should be very low friction for users to classify images and objects found within images, with minimal training. It should also be simple for users to upload images to be analyzed.

Rationale: To maximize the information gained from users who are contributing to classification efforts, the system must ensure it is simple for users to get started with, and continue using the system. This is necessary to build a large enough user base, which will make it more likely to get insights in an acceptable amount of time.

2.3 Minimizing Cost to Analyze Images

Description: The system should minimize the cost for users who upload images.

Rationale: Users of the system are interested in getting an appropriate return for their investment. If the cost to analyze is too high, the platform will not retain a sufficiently large user base of purchasers.

2.4 Results Returned Within Appropriate Timeframe

Description: The system should ensure the time it takes to obtain information from images is within a specified limit.

Rationale: Purchasers will have some time limit they require the system to process images within. To ensure timing needs are met, the system should provide realistic timelines and stick to them.

2.5 High Reliability and Accessibility

Description: The system should be useable remotely for purchasers and labellers. It should also have minimal downtime.

Rationale: The system should allow purchasers to upload images without being physically located where the system is hosted to ensure flexibility. The same should also be true for labellers, as they should be able to perform their tasks at home. In both cases, the system should have low down time as to not introduce additional friction into the completion of tasks.

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)?