

# Reflection and Traceability Report on Software Engineering

Team #22, TeleHealth Insights  
Mitchell Weingust  
Parisha Nizam  
Promish Kandel  
Jasmine Sun-Hu

[Reflection is an important component of getting the full benefits from a learning experience. Besides the intrinsic benefits of reflection, this document will be used to help the TAs grade how well your team responded to feedback. Therefore, traceability between Revision 0 and Revision 1 is an important part of the reflection exercise. In addition, several CEAB (Canadian Engineering Accreditation Board) Learning Outcomes (LOs) will be assessed based on your reflections. —TPLT]

## 1 Changes in Response to Feedback

[Summarize the changes made over the course of the project in response to feedback from TAs, the instructor, teammates, other teams, the project supervisor (if present), and from user testers. —TPLT]

[For those teams with an external supervisor, please highlight how the feedback from the supervisor shaped your project. In particular, you should highlight the supervisor's response to your Rev 0 demonstration to them. —TPLT]

[Version control can make the summary relatively easy, if you used issues and meaningful commits. If your feedback is in an issue, and you responded in the issue tracker, you can point to the issue as part of explaining your changes. If addressing the issue required changes to code or documentation, you can point to the specific commit that made the changes. Although the links are helpful for the details, you should include a label for each item of feedback so that the reader has an idea of what each item is about without the need to click on everything to find out. —TPLT]

[If you were not organized with your commits, traceability between feedback and commits will not be feasible to capture after the fact. You will instead need to spend time writing down a summary of the changes made in response to each item of feedback. —TPLT]

[You should address EVERY item of feedback. A table or itemized list is

recommended. You should record every item of feedback, along with the source of that feedback and the change you made in response to that feedback. The response can be a change to your documentation, code, or development process. The response can also be the reason why no changes were made in response to the feedback. To make this information manageable, you will record the feedback and response separately for each deliverable in the sections that follow. —TPLT]

[If the feedback is general or incomplete, the TA (or instructor) will not be able to grade your response to feedback. In that case your grade on this document, and likely the Revision 1 versions of the other documents will be low. —TPLT]

## 1.1 SRS and Hazard Analysis

## 1.2 Design and Design Documentation

## 1.3 VnV Plan and Report

# 2 Challenge Level and Extras

## 2.1 Challenge Level

The challenge level for this project was classified as **general**. The scope was limited in terms of the research required, and the domain knowledge needed was primarily focused on basic full-stack web development using a technology stack of our choice. Open-source tools and libraries, such as MediaPipe and Deepgram, were leveraged for audio and video processing. The project involved designing and building a system from scratch, with specific emphasis on user experience, accessibility, and secure data handling in a telehealth setting.

## 2.2 Extras

Two approved extras were tackled and completed as part of this project:

- **Usability Testing Report:** Usability testing sessions were conducted with representative users of the system, including parents, children and clinicians. Feedback was collected and analyzed to improve both the visual design and the functional flow of the application. Iterative design improvements were made based on this feedback to enhance intuitiveness, clarity, and accessibility.
- **Developer Documentation Guide:** A comprehensive developer guide was created to support future maintainers and contributors. It included setup instructions, system architecture explanations, technology stack breakdowns, service responsibilities, and customization notes for key components like the bias detection feature.

### **3 Design Iteration (LO11 (PrototypeIterate))**

[Explain how you arrived at your final design and implementation. How did the design evolve from the first version to the final version? —TPLT]

[Don't just say what you changed, say why you changed it. The needs of the client should be part of the explanation. For example, if you made changes in response to usability testing, explain what the testing found and what changes it led to. —TPLT]

### **4 Design Decisions (LO12)**

[Reflect and justify your design decisions. How did limitations, assumptions, and constraints influence your decisions? Discuss each of these separately. —TPLT]

### **5 Economic Considerations (LO23)**

[Is there a market for your product? What would be involved in marketing your product? What is your estimate of the cost to produce a version that you could sell? What would you charge for your product? How many units would you have to sell to make money? If your product isn't something that would be sold, like an open source project, how would you go about attracting users? How many potential users currently exist? —TPLT]

### **6 Reflection on Project Management (LO24)**

[This question focuses on processes and tools used for project management. —TPLT]

#### **6.1 How Does Your Project Management Compare to Your Development Plan**

[Did you follow your Development plan, with respect to the team meeting plan, team communication plan, team member roles and workflow plan. Did you use the technology you planned on using? —TPLT]

#### **6.2 What Went Well?**

[What went well for your project management in terms of processes and technology? —TPLT]

#### **6.3 What Went Wrong?**

[What went wrong in terms of processes and technology? —TPLT]

## **6.4 What Would you Do Differently Next Time?**

[What will you do differently for your next project? —TPLT]

# **7 Reflection on Capstone**

[This question focuses on what you learned during the course of the capstone project. —TPLT]

## **7.1 Which Courses Were Relevant**

[Which of the courses you have taken were relevant for the capstone project? —TPLT]

## **7.2 Knowledge/Skills Outside of Courses**

[What skills/knowledge did you need to acquire for your capstone project that was outside of the courses you took? —TPLT]